Ohio's COVID-19 Populations Needs Assessment

Minimizing the Disparate Impact of the Pandemic and Building Foundations for Health Equity

THE OHIO STATE UNIVERSITY
COLLEGE OF PUBLIC HEALTH

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For materials translated into languages other than English

https://go.osu.edu/inequitable-burdens-covid-19-translations

For the full list of Community Linkages and Resources

https://go.osu.edu/inequitable-burdens-covid-19-community-resources

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Acknowledgments

Requesting Additional Information

For additional information about this report, please email CPH-COVID19NeedsAssessment@osu.edu. Assistance may be available to (a) locate trusted community organizations and linkages interested in collaborating to implement actions recommended here; (b) initiate new projects to advance the COVID-19 response and health equity within marginalized Ohio communities; (c) utilize *Needs Assessment* data to understand specific barriers or generate specific recommendations to solve COVID-related problems.

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Executive Summary

Ohio's COVID-19 Populations Needs Assessment is a statewide evaluation that aims to improve the ability of Ohioans to prevent COVID-19 transmission and minimize its impacts on communities. Based on input from 363 stakeholders representing six Ohio populations, this document describes critical barriers these communities face and recommends strategies for overcoming each barrier. This *Needs Assessment* describes specific actions that networks of collaborators at community, local, and state levels can take to facilitate access to COVID-19 protections, reduce infections and deaths, and set the stage for long-term reduced health disparities and improved health outcomes across the state. The *Needs Assessment* can be used to inform COVID-19 response, recovery, research, and policy formulation activities.

Which **populations** are included in the *Needs Assessment*?

The *Needs Assessment* focuses on six populations, selected because they are at risk for disproportionate burdens of disease and death during the COVID-19 pandemic.

- Black and African American Communities
- Latino and Hispanic Communities
- Asian and Asian American Communities
- Immigrant and Refugee Communities
- Rural Communities
- People with Disabilities

Which **public health strategies** are considered in the *Needs Assessment*?

The Centers for Disease Control and Prevention (CDC) recommends eight specific practices to prevent the spread of COVID-19. The *Needs Assessment* asked community members and representatives from each population to reflect on their community's use of each of these recommended behaviors.

- Hygiene (hand washing and surface cleaning)
- Social Distancing
- Use of Personal Protective Equipment (PPE)
- COVID-19 testing
- Contact tracing
- Isolation (for infected individuals)
- Self-Quarantine (for exposed individuals)
- Healthcare Access

What are the **goals** of the *Needs Assessment?*

- Identify the unique needs of communities at risk of disparate burden of disease and death due to COVID-19

- Describe the barriers communities face to using CDC-recommended behaviors for COVID-19 protection

- Make data-driven recommendations about public health interventions that will reduce the disparate impact of COVID-19 across Ohio's communities and support long-term population wellness

- Make data-driven recommendations about how to design, resource, and implement these interventions across the state

What **methods** does the *Needs Assessment* use to achieve these goals?

Representatives of each population completed a survey composed primarily of open-ended questions about the use of CDC-recommended COVID-protective strategies within their communities. Stakeholders included leaders of ethnic, religious, and other community-based organizations, social service providers and local public health workers, healthcare providers, and other community members.

For every CDC-recommended strategy, the survey asked population representatives to describe:

- *Barriers* their community faces in following each suggested public health strategy

- *Cultural* or situational concerns that should be considered in encouraging the public health strategy in their community

- *Ideas* about what could be done to help members of their community access the encouraged practice

- *Stories* that demonstrate how the recommended practice impacts members of their community

- *Strengths* of their community

- *Sources* of health information, healthcare, and other resources trusted within their community

Data provided by these stakeholder respondents were analyzed using a multi-layer, iterative process. The research team extracted common ideas and themes shared by population representatives. Panels of experts then examined these preliminary findings to provide context for the ideas articulated by community stakeholders and ensure that the research team understood them accurately. Expert panels were composed of state-level leaders from each population, academic researchers, and public health practitioners. The research team next identified patterns that cut across the various populations and public health strategies. This yielded key recommendations designed to improve both access to COVID-related protections and long-term health outcomes across Ohio.

What are the **central findings** of the *Needs Assessment*?

The populations studied in this *Needs Assessment* face substantial barriers to using each of the public health strategies recommended to prevent transmission of COVID-19 and mitigate its impacts on communities. Respondents articulated not only the nuances of these barriers, but also the many ways they impede COVID-protective behavior, and a clear sense of urgency about the need to resolve them.

These barriers include:

- Serious gaps in access to necessary resources

- COVID-unsafe working conditions in essential jobs

- Specific public health advice inconsistent with community values

- Lack of information and COVID-related education

- Stigma and mental health challenges

- Caregiving responsibilities

- Lack of personal transportation

- Dense and poor housing conditions

- Language and communication barriers

- Racism, xenophobia, and able-ism

- Immigration-related fears

- Political beliefs

- Mistrust of government authorities and healthcare providers

Solutions to these barriers must be developed with input and assistance from members of each community and deployed in direct partnership with community-based organizations. Community centered interventions will require collaborative effort, but will alleviate barriers to multiple COVID-protective behaviors at the same time.

What are the **key recommendations** of the *Needs Assessment*?

Eight top-level recommendations emerged from *Needs Assessment* data and analyses. These key recommendations focus on actions that will have the strongest positive impact on reducing COVID-related burdens on Ohio's marginalized communities, as well as the longest-lasting public health impact for populations across the state. Each recommendation would mitigate the impacts of COVID-19 in multiple populations by improving access to multiple protective behaviors. Because they address social determinants of health and institutionalized oppression, these recommended actions will also help to reduce health disparities and improve long-term health outcomes throughout Ohio.

Top-Level Recommendations from *Ohio's COVID-19 Populations Needs Assessment*

1. Center the COVID-19 response in the organizations and cultures of local communities

2. Explicitly address economic injustice and its widespread health and social impacts by directly providing resources

3. Directly address racism and immigration-related fears

4. Strengthen employment policy and other relevant public policies

5. Increase access to affordable, low-density housing

6. Improve public and shared transportation services

7. Improve the quality of COVID-related education and increase its dissemination

8. Address language and communication barriers

The following mechanisms are suggested to help achieve these top-level *Needs Assessment* recommendations.

- Take a multi-sectoral community-based approach

- Integrate interventions across COVID-19 protective strategies

- Launch interventions at multiple levels (e.g.: state, regional, local, neighborhood, workplace)

- Expand existing centers-of-community into centers of COVID-19 response

- Create and expand community health worker capacity

- Align goals and strategies, and collaborate to maximize progress toward health equity

What will **readers** find in this *Needs Assessment* report?

The full-length *Needs Assessment* report contains:

- Details of the context, objectives, and methods of the *Needs Assessment*

- Findings and recommendations specific to each of the six *Needs Assessment* focus populations, sorted into three categories:

    - Immediate, COVID-19 specific recommendations

    - Immediate recommendations to improve the health of communities

    - Recommendations to create a social context for long-term health and wellness

- Findings specific to each of the eight CDC-recommended practices to prevent the spread of COVID-19

- Detailed explanation of eight top-level *Needs Assessment* recommendations for minimizing the impact of COVID-19 on Ohio's populations

- Mechanisms for achieving the eight top-level recommendations

- Stories and examples in the words of *Needs Assessment* respondents

- Action recommendations for key audiences of the *Needs Assessment*, including:

    - State-level leaders and legislators

    - Local public health authorities and social service agencies

    - Community leaders and organizations

    - Healthcare institutions and providers

    - Public and private funders

    - Universities, researchers, and subject-matter experts

- Lists of trusted community organizations, resources, and linkages for each focus population

For additional information or consultations about implementing the recommendations of this report, please contact CPH-COVID19NeedsAssessment@osu.edu.

Table 1. Selected Recommendations for Key Audiences: Your Role in Minimizing the Impact of COVID-19 on Ohio's Populations

	Key Audiences					
KEY RECOMMENDATION #1: Center the COVID-19 response in the organizations and cultures of local communities	**State-level legislators, political leaders, health and social service departments**	**Local public health authorities and social service agencies**	**Centers-of-community (e.g.: community organizations, places of worship, leaders)**	**Healthcare institutions and providers**	**Government and private funders, other donors**	**Universities, researchers, and subject-matter experts**
	Recognize the need to tailor the COVID-19 response to particular populations and communities, as a necessary supplement to the general statewide COVID-19 response.	Seek out community members and leaders to help inform your COVID-related policies, programs, and interventions.	Contribute expertise about community cultures to state-level conversations, public health organizations and social service organizations that are designing pieces of the COVID-19 response.	Collaborate with centers-of-community to provide free COVID-19 testing, education, and healthcare in their locations.	Make funds available specifically to help existing centers-of-community expand into centers of COVID-19 response.	Seek out centers-of-community and work with these local experts to develop and disseminate interventions.
	Launch funding programs and interventions explicitly designed to alleviate specific COVID-related barriers faced by particular communities. Prioritize distribution of resources based on disease burden and scientific evidence.	Articulate the COVID-related needs of the communities you serve to state-level leaders.	Volunteer to distribute supplies and educational materials, host a COVID-19 testing site, and/or host contact tracers. Partner with scientific experts, public health authorities, social service agencies, and funders to facilitate these new roles.	Collaborate with researchers, agencies, and funders to develop accurate educational materials specific to the COVID-related needs of your local communities.	Increase support to community-based organizations already contributing to the COVID-19 response.	Partner with centers-of-community to apply for funding to launch COVID-related services, interventions, and research.
	Ensure that COVID-related data is systematically collected and reported at both county and census-tract levels, to facilitate appropriate focusing and tailoring of COVID-related interventions.	Apply to COVID-specific and general funding programs to resource COVID-19 education and services in local communities.	Approach local agencies, funders, state-level authorities, and researchers to describe what your community needs and suggest collaborative solutions.	Include members or representatives of the marginalized communities you serve in developing all elements of your own COVID-19 response strategy.	Approach centers-of-community, subject matter experts, or local agencies about developing COVID-related services you can help fund.	Conduct critical, rapid research about COVID-related impacts and interventions in marginalized communities. Disseminate findings widely.
	Include members or representatives from all of Ohio's marginalized communities in the development of COVID-related policies and programs.	Approach centers-of-community to propose partnerships that will bring your services and other COVID-related support into local sites.	Role model the use of COVID-protective strategies (e.g. wearing a mask, staying 6' apart) in your own spaces and communities.			
	Help expand existing centers-of-community into centers of COVID-19 response by making funds and resources available to those centers-of-community and their collaborators.					

	Key Audiences					
	State-level legislators, political leaders, health and social service departments	Local public health authorities and social service agencies	Centers-of-community (e.g.: community organizations, places of worship, leaders)	Healthcare institutions and providers	Government and private funders, other donors	Universities, researchers, and subject-matter experts
KEY RECOMMENDATION #2: Explicitly address economic injustice and its widespread health and social impacts by directly providing resources	Advance health in all policies; advance values and goals inclusive of economic and social justice for all of Ohio's communities in all policies.	Directly distribute supplies and financial resources necessary to enable community members to practice appropriate hygiene, social distancing, mask and other PPE use, testing, and healthcare use.	Connect with state-level programs, local agencies, and other funders to bring cleaning supplies, masks and other PPE, testing capabilities, and free healthcare into the communities you represent and serve.	Establish or expand free, culturally-appropriate clinics in low-income and marginalized communities, to widen the availability of COVID-related and basic healthcare.	Provide direct funding to centers-of-community and local agencies and programs, to facilitate their distribution of cleaning supplies, masks, and other PPE.	Build on existing community partnerships to bring COVID-related supplies and resources into neighborhoods that lack access.
	Provide human and financial resources to local public health authorities, as well as state and community organizations, to develop infrastructure and programs to alleviate persistent poverty, unemployment / underemployment, and their health effects.	Coordinate linkages between funders, state-level programs, and centers-of-community to ensure that communities have sufficient access to necessary resources, including local testing sites, healthcare, essential supplies, and broadband Internet.	Organize volunteer efforts to distribute supplies and resources in the communities you represent and serve.	Expand charity care programs in existing locations that could serve low-income and marginalized populations.	Fund local free health clinics or support charity healthcare programs, to provide COVID-related and basic healthcare services in marginalized communities.	Work with local agencies and community organizations to design, fund, and run programs that provide the COVID-protective resources specific communities need.
	Allocate funds to subsidize or distribute free resources (e.g.: cleaning supplies, masks, PPE) throughout Ohio, focusing on marginalized communities and neighborhoods that currently lack access.	Partner with low-wage essential workplaces to ensure workers have access to basic healthcare, and to cleaning supplies, masks, and PPE that can be used at work and taken into home and community settings.	Volunteer to distribute supplies and educational materials, host a COVID-19 testing site, and/or host contact tracers within your physical spaces.	Add staff social workers or patient navigators to help eligible patients enroll in insurance programs and access telehealth services.	Fund free municipal broadband Internet in rural and other low-income areas that lack online access.	Provide expertise and evidence to state-, local-, and community-level organizations working on funding and designing direct resource provision programs for low-income and marginalized communities.
	Fund and organize free testing sites, free healthcare clinics, and free broadband Internet in communities and regions of the state that currently lack access to these services.	Address supply chain and affordability challenges to ensure availability of cleaning supplies, masks, and PPE throughout marginalized and low-income communities.		Collaborate with centers-of-community to provide free COVID-19 testing, education, and healthcare in local communities; provide free transportation to your service locations when needed.	Create or fund programs to provide direct financial support to individuals suffering from job loss during the pandemic, or who need to isolate or quarantine.	
	Broaden access to cash assistance, rental assistance, emergency pay, unemployment, and stimulus payments, as well as grace periods for unpaid rent and utility bills for the duration of the pandemic.					
	Legislate mandatory provision of PPE and cleaning supplies in essential work locations.					

	Key Audiences					
	State-level political leaders, legislators, health departments, and social service departments	**Local public health authorities and social service agencies**	**Centers-of-community (e.g.: community organizations, places of worship, leaders)**	**Healthcare institutions and providers**	**Government and private funders, other donors**	**Universities, researchers, and subject-matter experts**
KEY RECOMMENDATION #3: Directly address racism and immigration-related fears	Call attention to racism, xenophobia, and misinformation whenever they are articulated in public spaces, and strongly refute such statements.	Assess and acknowledge the nature of implicit bias, gaps in cultural competence, and lack of employee diversity that may affect the quality of services you provide to local communities.	Advocate for local and state policies that would help reduce the impacts of racism and immigration-related fears in your community.	Assess and acknowledge the nature of implicit bias, gaps in cultural competence and cultural humility, and lack of employee diversity that may affect the quality of services you provide to local communities.	Fund programs that aim to eliminate racism, xenophobia, and discriminatory behavior that is COVID-related or more general.	Conduct research that illuminates the COVID-related impacts of racism and immigration-related fears on communities of color in Ohio. Disseminate the results widely.
	Advance anti-racism in all policies; advance values and goals inclusive of all of Ohio's communities in all policies.	Institute required, comprehensive, ongoing programs that train your staff to identify and reverse discriminatory practices and habits, and to understand and honor the norms and cultural values of the communities you serve.	Encourage local public health authorities and social service agencies to understand and help address the impacts of racism and immigration-related fears in your community.	Institute required, comprehensive, ongoing programs that train your staff to identify and reverse discriminatory practices and habits, and to understand and honor the norms and cultural values of the communities you serve.	Fund the development and implementation of trainings to help organizations recognize and reverse discriminatory practices and honor the norms and cultural values of their communities.	Contribute your expertise to build local and state understanding of the impacts of racism and immigration-related fears on COVID-related and other health outcomes within Ohio communities.
	Require all governmental agencies to submit routine reports – including annually to the Ohio State Legislature – on their progress in addressing racism as a public health crisis.	Publicly promote mask-wearing and other COVID-protections as expressions of conscientiousness and community support instead of indicators of illness.	Collaborate with funders and researchers to further understand – and reverse – the COVID-related barriers that stem from racism, xenophobia, harassment, and immigration-related fears in your community.	Launch multi-pronged initiatives to address structural barriers and discrimination within your organization, including diversifying your workforce, mentoring and sponsoring staff at all levels, and involving your decision makers in advancing diversity-, equity-, and inclusion-related goals.	Fund research on the COVID-related impacts of racism and immigration-related fears on communities of color in Ohio.	Contribute your expertise to design and implement private, public, or multi-sector programs to eliminate racism, xenophobia, and all types of discriminatory behavior.

	Key Audiences					
	State-level political leaders, legislators, health departments, and social service departments	**Local public health authorities and social service agencies**	**Centers-of-community (e.g.: community organizations, places of worship, leaders)**	**Healthcare institutions and providers**	**Government and private funders, other donors**	**Universities, researchers, and subject-matter experts**
KEY RECOMMENDATION #3: Directly address racism and immigration-related fears (continued)	Provide human and financial resources to local public health authorities, as well as state and community organizations, to develop infrastructure and programs to address racism as a public health crisis.	Advocate for local and state programs to eliminate racism, xenophobia, and all types of discriminatory behavior.	Serve as host sites for community health workers who connect community members to COVID-specific services.		Fund educational campaigns designed to eliminate COVID-related discrimination and harassment against people of color.	Advocate for anti-racist policies in your own institutions and across the state.
	Institute policies and procedures that ensure that personal information gathered through COVID-19 testing, contact tracing, and healthcare interactions cannot legally be transferred to any other government entities, including local police, immigration authorities, and immigration courts.	Employ people of color and immigrants as contact tracers and community health workers.				
	Advance legal mechanisms to reduce hate crimes, racial profiling, and harassment. For instance, institute mandatory mask ordinances; prosecute COVID-related hate crimes promptly; increase resources to Civil Rights Commission to investigate discrimination cases.					

	Key Audiences					
	State-level political leaders, legislators, health departments, and social service departments	**Local public health authorities and social service agencies**	**Centers-of-community (e.g.: community organizations, places of worship, leaders)**	**Healthcare institutions and providers**	**Government and private funders, other donors**	**Universities, researchers, and subject-matter experts**
KEY RECOMMENDATION #4: Strengthen employment policy and other relevant public policies	Institute legislation or policy to require that employers provide leave time to employees who need to isolate, quarantine, or care for isolating or quarantined family members, without threat of job or benefit loss.	Help local businesses develop and institute appropriate hygiene, mask-wearing, PPE, and social distancing measures to protect employees and customers.	Ensure that your staff members have consistent access to appropriate PPE and are able to work remotely and/or practice social distancing when possible.	Ensure that healthcare workers and staff members at all levels of your organization have consistent access to appropriate PPE and are able to practice social distancing when possible.	Fund programs to help small businesses and those owned by people of color to provide COVID-related protections for their employees and abide by all regulations.	Contribute expertise to efforts to strengthen workplace-related COVID-19 protections through policy and regulation.
	Institute legislation or policy to require employers to provide cleaning supplies, masks, other PPE, social distancing ability, and remote work options as appropriate to each job and workplace.	Help local businesses establish leave policies and financial supports for employees coping with income reductions due to isolation, quarantine, reduced hours, or job loss.	Ensure that your employees have access to leave time and financial supports to cope with income reductions due to isolation, quarantine, or reduced hours.	Ensure that all employees of your organization have access to leave time and financial supports to cope with income reductions due to isolation, quarantine, or reduced hours.	Fund programs that provide financial supports to individuals coping with income reductions due to isolation, quarantine, reduced hours, or job loss.	Help local businesses and organizations develop methods to protect their employees and customers from COVID-19 (e.g.: improving air flow, improving social distancing, expanding remote work options).
	Allocate funding to support the ability of small businesses and those owned by people of color to abide by new work-related regulations.	Ensure that staff members at all levels of your organization have consistent access to appropriate PPE and are able to work remotely and/or practice social distancing when possible.	Seek out support from funders and government agencies to provide COVID-related protections for your employees and customers and abide by all regulations.		Support advocates who are working to strengthen workplace-related COVID-19 protections through policy and regulation.	Conduct research to understand the impacts of incentives and regulations on COVID-related protections in workplaces and other locations. Disseminate the results widely.
	Institute legislation or policy to provide emergency financial supports to those who lose work time or jobs due to the pandemic.	Ensure that all employees of your organization have access to leave time and financial supports to cope with income reductions due to isolation, quarantine, or reduced hours.				Ensure that all employees of your organization have access to leave time and financial supports to cope with income reductions due to isolation, quarantine, or reduced hours.
	Monitor businesses – particularly employers of low-wage/essential workers and industries with histories of unhealthy working conditions and employee coercion – to ensure compliance with COVID-related regulations.					

	Key Audiences					
	State-level political leaders, legislators, health departments, and social service departments	**Local public health authorities and social service agencies**	**Centers-of-community (e.g.: community organizations, places of worship, leaders)**	**Healthcare institutions and providers**	**Government and private funders, other donors**	**Universities, researchers, and subject-matter experts**
KEY RECOMMENDATION #5: Increase access to affordable, low-density housing	Develop state programs to provide free interim housing to individuals who need to quarantine or isolate but cannot realistically do so within their own homes (e.g.: in motels or currently unused public spaces).	Develop local programs to provide free interim housing to individuals who need to quarantine or isolate but cannot realistically do so within their own homes (e.g.: in motels or currently unused public spaces).	Support and publicize free interim housing programs to assist individuals who need to quarantine or isolate but cannot realistically do so within their own homes.	Assess housing security, housing density, and access to COVID-safe situations at home among your patients; connect those experiencing gaps to social programs that can help.	Fund programs that provide free interim housing, or provide vouchers for temporary accommodations, to assist individuals who need to quarantine or isolate but cannot realistically do so within their own homes.	Provide expertise and conduct research to help develop and evaluate temporary housing, rental assistance, and related programs.
	Suspend evictions, increase access to rental assistance, and pause utility payments to keep low-income individuals in their current residences.	Connect individuals to rental assistance and utility payment programs to help keep people in their current residences.	Collaborate with agencies and funders to establish rental and utility assistance programs that help low-income community members retain their current residences.	Assess housing security, housing density, and access to COVID-safe situations at home among your staff; connect those experiencing gaps to social programs that can help.	Fund programs to provide food and supplies, Internet access, and interpretive technology to individuals isolating or quarantining in interim housing situations.	Collaborate with local agencies, community-based organizations, and funders to design evidence-based programs to improve access to COVID-safe housing.
	Increase support to shelters to help them safely house more individuals who are housing insecure.	Establish additional COVID-safe capacity in shelters and provide them with necessary supplies to accommodate more housing insecure individuals.	Provide guidance and resources to help community members living in dense housing situations increase COVID-safety measures at home.		Create rental and utility assistance programs to help low-income individuals retain their current residences.	Contribute expertise about effective housing support programs that could serve as examples for programs in your region.
	Expand community-based alternatives to reduce the proportion of individuals with disabilities living in congregate care settings.	Expand community-based alternatives to reduce the proportion of individuals with disabilities living in congregate care settings.	Work with interim housing programs to ensure cultural appropriateness (e.g.: allowing isolating individuals to bring a caregiver or family member along if necessary).		Fund programs that distribute guidance and resources to help community members living in dense housing situations increase COVID-safety measures at home.	
	Reduce or eliminate sentences for minor offenses to reduce jail and prison overcrowding.	Provide guidance and resources to help individuals living in dense housing situations increase COVID-safety measures at home.			Fund initiatives to build more affordable housing and convert existing housing to affordable units.	

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KEY RECOMMENDATION #5: Increase access to affordable, low-density housing (continued)	Establish subsidies and incentives to build more affordable housing and convert existing housing to affordable units.				Fund programs to create community-based alternatives that reduce the proportion of individuals with disabilities living in congregate care settings.	
	Monitor businesses – particularly employers of low-wage/essential workers and industries with histories of unhealthy working conditions and employee coercion – to ensure compliance with COVID-related regulations.					

	Key Audiences					
	State-level political leaders, legislators, health departments, and social service departments	Local public health authorities and social service agencies	Centers-of-community (e.g.: community organizations, places of worship, leaders)	Healthcare institutions and providers	Government and private funders, other donors	Universities, researchers, and subject-matter experts
KEY RECOMMENDATION #6: Improve public and shared transportation services	Increase investment in public transit systems across the state, to add routes and destinations, increase the frequency of buses on routes, decrease costs to riders, and increase COVID-19 safety measures on vehicles.	Provide transportation support to help local residents shop for necessities, access healthcare and social services, and move safely around the community.	Provide transportation support to help local residents shop for necessities, access healthcare and social services, and move safely around the community.	Provide transportation support to help local residents access COVID-related and general healthcare services.	Invest in public transit systems to add routes and destinations, increase the frequency of buses on routes, decrease costs to riders, and increase COVID-19 safety measures on vehicles.	Contribute expertise to help convert public transit and ride-share vehicles to minimize the transmission of COVID-19 among riders and drivers.
	Increase investment in programs that allow healthcare providers, public health agencies, and social service agencies to provide transportation support.	Help ride-share drivers and local transit services increase COVID-19 safety in their vehicles by adding plexiglass barriers and enhancing cleaning routines.			Support ride-share services to operate in rural areas.	Contribute expertise to agencies, healthcare providers, and community-based groups launching transportation support initiatives.
	Incentivize ride-share services in rural areas.				Fund ride-share drivers and local transit services to add plexiglass barriers and enhanced cleaning routines that will increase COVID-19 safety in their vehicles.	Conduct research to assist in the development and evaluation of transportation support programs.
					Provide funding to help community-based organizations, healthcare providers, and social services agencies launch transportation support services.	

	Key Audiences					
	State-level political leaders, legislators, health departments, and social service departments	**Local public health authorities and social service agencies**	**Centers-of-community (e.g.: community organizations, places of worship, leaders)**	**Healthcare institutions and providers**	**Government and private funders, other donors**	**Universities, researchers, and subject-matter experts**
KEY RECOMMENDATION #7: Improve the quality of COVID-related education and increase its dissemination	Authorize and invest in programs to create comprehensive educational materials about COVID-19 and recommended protective strategies, tailored to reflect the values and norms of Ohio's various communities, and featuring role models from those communities.	Collaborate with community leaders and subject-matter experts to design and disseminate educational materials tailored to be appropriate to specific communities and cultural groups.	Collaborate with subject matter experts, local agencies, and funders to design and disseminate educational materials appropriate to your community.	Customize and disseminate COVID-related educational materials that are tailored for the specific cultural communities you serve.	Fund the work of community-based organizations and local agencies to develop tailored educational materials for specific Ohio communities.	Contribute expertise to the work of local and state partners developing educational materials, about COVID-19 itself, COVID-protective strategies, and customizing these strategies to reflect the concerns of specific communities.
	Disseminate culturally specific educational materials through a variety of media and venues, in partnership with local agencies, community organizations, healthcare providers, and/or academic institutions.	Assist in developing training programs to help healthcare, social service, and public sector workers serve all of Ohio's communities in culturally appropriate ways.	Advocate for the development of COVID-related educational content that addresses specific cultural priorities and needs of your community.	Institute ongoing educational programs to improve the ability of staff at all levels of your organization to effectively serve local residents from various communities and cultures.	Fund widespread and ongoing dissemination of both general and culturally specific COVID-related educational materials.	Work with local, regional, and national media to assist with delivery of COVID-related information in simple language accessible to the public.
	Authorize, fund, and implement a comprehensive mass media campaign to continually disseminate clear, credible, consistent information about COVID-19 from public health experts.		Encourage community members to engage in the development and dissemination of educational materials, and to serve as examples and role models of COVID-protective behaviors.			Collaborate with local agencies and community leaders to design and disseminate educational materials appropriate to specific communities.
	Develop training programs to help healthcare, social service, and public sector workers serve all of Ohio's communities in culturally appropriate ways.		Collaborate with local agencies and healthcare providers developing training programs to improve the ability of their staff to deliver COVID-related services to members of your community effectively.			

	Key Audiences					
	State-level political leaders, legislators, health departments, and social service departments	**Local public health authorities and social service agencies**	**Centers-of-community (e.g.: community organizations, places of worship, leaders)**	**Healthcare institutions and providers**	**Government and private funders, other donors**	**Universities, researchers, and subject-matter experts**
KEY RECOMMENDATION #8: Address language and communication barriers	Establish and invest in programs to rapidly translate COVID-related guidance and updates from state-level departments, the Governor's office, and the CDC into the primary languages spoken by Ohio populations.	Hire (or employ through shared staffing arrangements) local community members to work as multilingual staff or translators providing services in the languages spoken by local populations.	Connect individuals fluent in the languages of your community to local agencies and healthcare institutions, to work as translators or be trained for contact tracing or healthcare roles.	Hire (or employ through shared staffing arrangements) local community members to work as multilingual staff or translators providing services in the languages spoken by local populations.	Fund training and hiring initiatives to involve local community members as staff members or translators within local agencies or healthcare providers.	Contribute expertise about the importance of translating educational materials to public health agencies and healthcare providers developing these materials.
	Invest in programs to hire and train native speakers of all the primary languages spoken in Ohio to work as contact tracers, healthcare providers, and translators throughout public health agencies, social service agencies, and healthcare settings.	Make COVID-related materials you develop and disseminate available in all the languages spoken by local populations.	Connect individuals fluent in the languages of your community to local agencies and healthcare institutions that develop COVID-related educational materials.	Ensure that COVID-related informational materials are available in all the languages spoken by local populations.	Fund programs to translate COVID-related educational materials into the primary languages spoken in Ohio.	Contribute expertise about the importance of providing healthcare and social services in the native languages spoken by Ohio populations.
	Provide ASL and other interpretive services to ensure that individuals with disabilities can understand COVID-related information provided by state agencies and leaders.	Utilize plain language and visual aids in all COVID-related materials you develop.	Advocate for translation of all COVID-related materials into the languages spoken within your community.	Utilize plain language and visual aids in all COVID-related materials you develop.	Assist social service agencies and healthcare providers to hire translators and interpreters.	Contribute expertise about the importance of using plain language, visual aids, and other methods to make educational materials easy to understand.
		Ensure that any remote or phone-based translation services you employ provide high-quality, accurate, and culturally competent translation.	Advocate for text-alternative communication methods (e.g.: storytelling) when those are valued in your community.	Ensure that any remote or phone-based translation services you employ provide high-quality, accurate, and culturally competent translation.		Advocate for programs and funding to translate COVID-related materials, and to provide translation and interpretation services in healthcare and social service settings.
	Ensure that ASL and other interpretive services are available to facilitate communication between service providers and clients with disabilities.		Ensure that ASL and other interpretive services are available to facilitate communication between providers and patients with disabilities.		Assist in accurate translation of educational materials into the primary languages spoken by Ohio populations.	
	Allow patients with disabilities to bring an interpreter or trusted companion to all appointments.		Allow patients with disabilities to bring an interpreter or trusted companion to all healthcare interactions.			

List of Figures, Tables, and Maps

Context, Objectives, and Methods

Context, Objectives, and Methods

Context and Related Efforts

Ohio's COVID-19 Populations Needs Assessment was conceived within a working group assembled by Ohio Department of Health (ODH) Health Equity Director Johnnie (Chip) Allen. This team's objective is to assemble information, analyze data, and recommend interventions focused on the individuals, families, and groups who are least likely to be able to protect themselves from COVID-19 and most likely to suffer severe illness and death as a result. To accomplish these goals, the group brings together public health leaders at the Ohio Department of Health and researchers from The Ohio State University (OSU) College of Public Health, the OSU Kirwan Institute for the Study of Race and Ethnicity, Deloitte Consulting LLP, and Nationwide Children's Hospital. This team explores where Ohio's most vulnerable populations live and work, who is present in these areas, what barriers these groups face in accessing COVID-related protections and care, and how to alleviate those burdens.

By March 2020, it was clear that the COVID-19 pandemic would strike Ohio and would very likely affect some of the state's populations more than others. Health disparities are widespread throughout U.S. society, and disparities are patterned. Long experience with these patterns suggested that people of color, rural populations, and individuals with disabilities were among those most likely to suffer disproportionately high rates of COVID-19 infection, hospitalization, and death because these groups would enter the pandemic already dealing with poorer overall health status, lesser access to healthcare, and more negative social determinants of health than others. These starting points also suggested that minimizing the impact of COVID-19 on the most vulnerable Ohio communities would require access to current, accurate information about how these communities are preventing and coping with the disease.

The *Needs Assessment* was created to generate a thorough understanding of barriers to COVID-safe behavior, and actionable recommendations about how to alleviate these barriers. It achieves these overarching goals by listening to the voices of Ohioans from six important populations: Black and African American groups, Latino and Hispanic groups, Asian and Asian American groups, immigrant and refugee groups, rural groups, and people with disabilities. The findings in this document reflect careful multi-stage analysis of open-ended data from 363 individuals representing these populations. In sum, this *Needs Assessment* report provides data-driven insights about how to improve the ability of Ohioans to protect themselves from COVID-19 through mechanisms that will also set the stage for improved health equity in the future.

In addition to its role within the ODH Health Equity effort to address the impacts of COVID-19 on all of Ohio's vulnerable populations, *Ohio's COVID-19 Populations Needs Assessment* is an evidence-based contribution to an important ongoing conversation about race and health equity in Ohio. Two leading elements of that conversation are represented by the work of the Governor's COVID-19 Minority Health Strike Force, and recent public acknowledgments across Ohio and the nation that racism is a public health crisis.

Assembled in April 2020 in response to the disproportionate impact of COVID-19 on people of color in Ohio, Governor DeWine's COVID-19 Minority Health Strike Force (MHSF) was comprised of highly experienced experts who provided insights from across sectors and regions of the state. This group issued an Interim Report in May 2020, which focused on immediate actions to address COVID-19 and its impact on people of color. The final Minority Health Strike Force Blueprint articulates a framework for dismantling racism to advance short- and long-term health equity by instituting improvements in healthcare and public health, the social and economic environment, and the physical environment. Early insights from *Needs Assessment* analyses helped inform the final recommendations offered in the MHSF Blueprint. Although different in scope, use of data, and involvement of expert advisors, the MHSF Blueprint and this *Needs Assessment* are aligned in their perspectives and recommendations about the policy changes and multi-sector, community-based collaborations necessary to respond to COVID-19 and improve health equity across Ohio. [1]

Across Ohio and the nation, a growing range of organizations, stakeholders, and governments are recognizing that racism is a public health crisis or emergency. [2] Within Ohio at least 17 separate City Councils and Commissions made such public declarations in the summer of 2020; Wisconsin, Nevada, and Michigan have also recognized racism as a public health crisis at the state level. [3] Racism has been a long-standing and widespread driver of health disparities and poor health outcomes throughout U.S. history. This level of public recognition, however, helps call critical attention to racism as a fundamental determinant of health. The findings of this *Needs Assessment* reflect that reality and support the assertion that it is only by dismantling racism in its structural, system, and everyday forms that health equity can be achieved.

1   Minority Health Strike Force 2020a, 2020b; Ohio Department of Health 2020a.

2   American Public Health Association, 2020; Brown, 2020; Came & Griffith, 2019; City of Columbus, 2020; Devakumar et al., 2020; Higgs, 2020; Vestal, 2020a.

3   American Public Health Association, 2020.

Purpose

Ohio's COVID-19 Populations Needs Assessment has four central objectives:

- To identify the unique needs of communities at risk of disparate burden of disease and death due to COVID-19.

- To describe the barriers these communities face to using CDC-recommended behaviors for COVID-19 protection.

- To make data-driven recommendations about public health interventions that will reduce the disparate impact of COVID-19 across Ohio's communities and support long-term population wellness.

- To make data-driven recommendations about how to design, resource, and implement these interventions across the state.

Theoretical Framework

Ohio's COVID-19 Populations Needs Assessment is guided by the COM-B theoretical framework in combination with the multi-level socio-ecological model of health and health behavior.

The COM-B (Capability-Opportunity-Motivation Behavioral System) theoretical framework (Figure 1) was developed by Susan Michie and colleagues as part of the Behavior Change Wheel intervention development process. [1] COM-B was selected for use in this project as it explicitly accounts for social and environmental context in the production of behavior – here the enactment of specific practices to prevent community spread of COVID-19. As such, the COM-B is an appropriate framework for use with populations at-risk for health disparities due to the social determinants of health. The COM-B framework posits that the health behavior of a particular population is shaped by capability – which includes both psychological and physical capacity to enact behavior – and opportunity – which consists of all the physical and social factors that make enactment of behavior possible or prompt it. Capability and opportunity directly impact a population's ability to access a health behavior as well as indirectly impact a population's ability to enact behavior through motivation. Motivation here refers both to the reflective processes of evaluating options and planning behavioral choices, and to the more automatic emotional and impulsive motivational processes that arise from associative learning and/or innate disposition. Together these three factors all shape engagement in protective health behavior – in this case, COVID-protective strategies such as hygiene practices, social distancing, wearing masks and appropriate PPE, and using testing, quarantine, isolation, and healthcare when needed.

Figure 1. COM-B Theoretical Framework
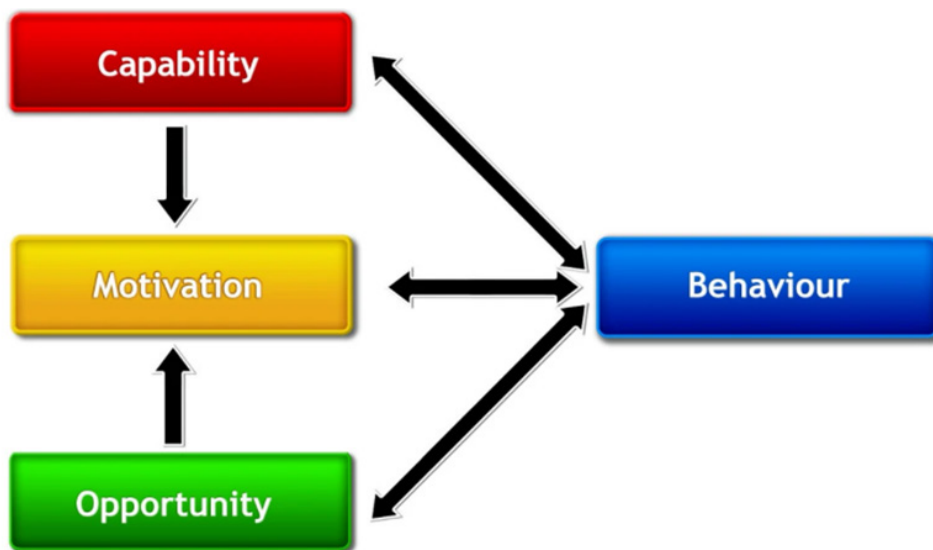
Source: Michie, Van Stralen, and West, 2011

1 Michie et al., 2014; Michie et al., 2011.

Originated by Urie Bronfenbrenner in 1977 and evolving considerably since then, the socio-ecological model emphasizes the multiple social levels that can shape health risks, behaviors, and outcomes. [1] In relation to this *Needs Assessment*, it contextualizes the ability of individuals, families, and groups to use public health measures to protect themselves from COVID-19. These broader contexts of behavior may include individual factors such as personal health histories and mental health; interpersonal networks such as families and colleagues; organizational environments such as schools, churches, and neighborhoods; community cultures, values, and norms; and policies at the local, state, and/or federal levels.

Figure 2. Socio-Ecological Model

Source: Office of Behavioral and Social Science Research, 2020

Together, the COM-B theoretical framework and multi-level socio-ecological model position the *Needs Assessment* to better understand COVID-protective behavior within the interactional and social contexts that shape it. The *Needs Assessment* data collection and analysis strategies are designed to identify the features of individual, interpersonal, organization, community, and policy contexts that influence the capabilities, opportunities, and motivations of individuals to protect themselves from COVID-19. This level of understanding will allow users of the final *Needs Assessment* report to identify strategies that alleviate barriers at all the levels where they exist, and thereby pave the way for at-risk populations to more fully access public health behavioral interventions to reduce COVID-19 disease spread.

1 Brofenbrenner, 1977; Office of Behavioral and Social Science Research, 2020.

Needs Assessment Survey

The data that inform this *Needs Assessment* were generated by an online survey. This survey was developed by the *Needs Assessment* Lead Evaluator, Dr. Julianna Nemeth, in cooperation with the members of the joint ODH/OSU/Deloitte/Nationwide team described above. Johnnie (Chip) Allen, Kierra S. Barnett, David Ellsworth, Tif Huber, and Amy Wermert were particularly critical to this effort. The fully drafted survey was vetted by the Ohio Department of Health and the Governor's Office before it was finalized. The final survey was programmed in Qualtrics by Alice Hinton at the OSU College of Public Health.

The six population groups selected as focal points for this *Needs Assessment* were:

- Black or African American communities in Ohio

- Communities of Hispanic, Latino, or Spanish origin in Ohio

- Asian communities in Ohio

- Immigrant or refugee communities in Ohio

- Ohioans living in rural areas, including those in medical-professional shortage areas

- Ohioans living with disabilities

The final survey was distributed to stakeholders representing all six selected focus populations around the state, through a range of methods including: personal contact by a member of the survey design team, contact through known community leaders, distribution of the survey to lists of community representatives provided by relevant organizations and commissions, and snowball sampling (distributing the survey to individuals recommended by others who already completed it). Respondent data were collected from May 19 through June 9, 2020. This resulted in a final sample size of 363 completed surveys.

This survey consisted primarily of open-ended questions (where respondents were allowed to type their own answers in whatever form they preferred), supplemented by some closed-ended items (multiple choice questions). The main body of the survey consisted of open-ended questions about the eight specific practices recommended by the Centers for Disease Control and Prevention (CDC) to prevent the spread of COVID-19:

- Hygiene (hand washing and surface cleaning)

- Social Distancing

- Use of Personal Protective Equipment (PPE)

- COVID-19 testing

- Contact tracing

- Isolation (for infected individuals)

- Self-Quarantine (for exposed individuals)

- Healthcare Access

The *Needs Assessment* asked community members and representatives from each target population to reflect on their community's use of each of these recommended behaviors. For every CDC-recommended strategy, the survey asked population representatives to describe:

- Barriers their community faces in following each suggested public health strategy

- Cultural or situational concerns that should be considered in encouraging the public health strategy in their community

- Ideas about what could be done to help members of their community access the encouraged practice

- Stories that demonstrate how the recommended practice impacts members of their community

- Strengths of their community

- Sources of health information, healthcare, and other resources trusted within their community

In addition, the survey asked respondents to identify their relationship to the population they represent; whether they are a member of that population; how they would describe the community or population; their age, gender, employment status and category, race and ethnicity, religion, and social class; the urban/rural, Appalachian, and HPSA (health professional shortage area) designations of the area where they live; whether they have a chronic condition; whether they would be willing to be re-contacted, and whether they could suggest any other appropriate stakeholder to complete the survey.

Analyses

The data provided by our respondents were analyzed using a multi-stage, iterative process

Figure 3. *Needs Assessment* **Timeline**

April 2020
Survey Designed by Planning Team and Vetted by ODH and Governor's Office

May 19 – June 9 2020
Data Collection through OSU College of Public Health

Early June 2020
Initial Analysis of Respondent Data

Consultation with Expert Panels representing each population, to ensure appropriate interpretation of respondent data

Mid-June 2020
Confirmation of Findings for Each Population

Early July 2020
Confirmation of Findings for Each Public Health Topic

July 2020
Development of Final Recommendations for Each Population

August – September 2020
Development of Top-Level Recommendations

Consultation with public health practitioners and community organization leaders, to ensure clear presentation of findings and recommendations

July – September 2020
Writing and Revising Final Report

October 2020
Release of *Needs Assessment* Final Report

Initial Analysis

In the first step, *Needs Assessment* Lead Analyst Dr. Tasleem Padamsee designed a template to capture information relevant to each category of information (barriers, concerns, ideas, and stories) and each recommended public health strategy, the strengths of each community, and trusted linkages and resources of each community. Drs. Padamsee and Nemeth (Lead Evaluator) then trained a group of Initial Analysts to list – in full or in summary form – each survey item answer provided by each respondent. Initial Analysts worked in teams of 2 to 4, each reading all the data from one population group multiple times and re-organizing it using the analysis template. This was a comprehensive process in which all barriers, potential solutions, and other ideas were listed and multiple occurrences of each were tallied. Each team then compared their analyses and generated a 'consensus document' representing their joint findings. The analysis template also catalogued points of disagreement between analysts; there were few, but in these cases the Lead Analyst re-read the original data carefully to decide on a final sorting of the data in question. The group of Initial Analysts was composed of health-related professionals, researchers, research staff members, and students.

Initial Analysts Group

- Claire Adams, MPH

- Brittney Butler, MPH

- Debbie Crawford, MSW, MAPA

- Melinda Dang, BSPH

- Wilson Figueroa, PhD

- Stefan M. Kienzle, MA

- Li Li, MS

- Rachael D. Nolan, PhD, MPH, CPH

- Kelsie Parker

- Ann Pema, MD

- Carson Reider, PhD

- Karima Samadi, MPH, CHES

- Samantha Shetterly, BA

- Paige Swinehart-Hord, BA

Integrated Analysis by Population Group

The Lead Analyst checked the initial findings generated by each Initial Analysis team by re-examining the original data, cross-checking it with the individual findings of each Initial Analyst, and cross-checking these data and findings with the consensus findings from each team. Dr. Padamsee then compared lists of barriers and potential solutions across public health strategies, generating preliminary integrated findings for each population group. These preliminary 'Integrated by Population Group' findings described each category of barrier or solution identified by the respondents representing each population, and catalogued which COVID-protective strategies were impeded by each barrier for each population.

Expert Panels were then convened to review each set of 'Integrated by Population Group' findings and compare them to the consensus findings produced by each Initial Analysis team. Expert Panels were composed of state-level leaders from each population, academic researchers, and public health practitioners. Expert panelists provided written feedback and then met in groups with Drs. Nemeth and Padamsee, ensuring that prior analysis steps had resulted in accurate analysis of the data. Revised 'Integrated by Population Group' findings were confirmed by Expert Panels, and the final versions are presented below in the sections entitled, 'Findings from Analysis of Respondent Data'.

Table 2. Expert Panel Members

Black and African American Communities	
Kierra S. Barnett, PhD, MPH	Racial and Health Equity Post-Doctoral Researcher, Kirwan Institute for the Study of Race and Ethnicity, The Ohio State University
Jennifer Beard, LSW	Assistant Dean, College of Public Health, The Ohio State University
Deena J. Chisolm, PhD	Vice President of Health Services Research and Director, Center for Innovation in Pediatric Practice, Abigail Wexner Research Institute at Nationwide Children's Hospital; Professor of Pediatrics, College of Medicine, The Ohio State University
Tif Huber, MA	Health Equity Specialist, Office of Health Equity, Ohio Department of Health
JaNelle Ricks, DrPH, MPA	Assistant Professor, Division of Health Behavior and Health Promotion, College of Public Health, The Ohio State University
Latino and Hispanic Communities	
Autumn M. Bermea, PhD	Postdoctoral Research Fellow, College of Education and Human Ecology, The Ohio State University
Yeliani Flores, MSW	Recent graduate, College of Social Work, The Ohio State University
Glenn Martinez, PhD, MA, MPH	Professor of Hispanic Linguistics and Director of the Center for Languages, Literatures, and Cultures, The Ohio State University
Kristina Medero, MA	PhD Student, School of Communication, The Ohio State University
Milly Valverde, MA, CMI	Director, Destination Medicine Global Health Care, Co-Chair Diversity Council, The Ohio State University Wexner Medical Center

Asian and Asian American Communities	
Melinda Dang, BSPH	Asian Festival Health & Wellness Committee Summer Intern; MPH Student, College of Public Health, The Ohio State University
Steven W. Ing, MD, MSCE	Associate Professor of Clinical Medicine, The Ohio State University Wexner Medical Center
Gregory Lam, MD, FACC	OhioHealth Heart and Vascular Physicians; Adjunct Assistant Professor of Medicine, The Ohio State Wexner Medical Center; Ohio University Heritage College of Medicine
Cora Muñoz, PhD, RN	Professor Emeritus and Adjunct Professor, Capital University; President, Ohio Asian American Health Coalition; President, Asian Festival Corporation; Member, Ohio COVID-19 Minority Health Strikeforce
Ana Sucaldito, MPH	Distinguished Dean's University Fellow, Community Advocate, and PhD Student, College of Public Health, The Ohio State University
Susan Yoon, PhD	Assistant Professor, College of Social Work, The Ohio State University
Immigrant and Refugee Communities	
Seleshi Asfaw, MD, MPH	President and CEO, Ethiopian Tewahedo Social Services (ETSS)
Reanne Frank, PhD	Professor of Sociology, The Ohio State University
Arati Maleku, PHD, MSW	Assistant Professor, College of Social Work, The Ohio State University
Bounthanh L Phommasathit, MS, BSW	Program Development Director, Lao Mutual Assistance Association
Bartholomew T. Shepkong, PhD	Policy and Advocacy Consultant, Executive Director and Founder of "The African"
Rachel Zupan, JD	Immigration Advocate

Rural Communities	
Shane T. Ford, Ed.S, MA	Rural Health Administrator, State Office of Rural Health, Ohio Department of Health
Austin Hilverding, PharmD	Pharmacy Manager, Shrivers Pharmacy, Nelsonville, Ohio
Rachael D. Nolan, PhD, MPH, CPH	Assistant Professor and Concentration Director, Health Services Management, College of Medicine, Public Health Sciences Division, Department of Environmental and Public Health Sciences, The University of Cincinnati
Electra Paskett, PhD	Marion N. Rowley Professor of Cancer Research and Director, Division of Cancer Prevention and Control, Department of Internal Medicine, College of Medicine; Professor, Division of Epidemiology, College of Public Health; Associate Director for Population Sciences and Community Outreach, Comprehensive Cancer Center; Director, Center for Cancer Health Equity, The Ohio State University
People with Disabilities	
Ally Day, PhD	Associate Professor, Disability Studies Program, University of Toledo
David Ellsworth, MPH, CHES	Health Services Policy Specialist, Ohio Disability and Health Program, Office of Performance and Innovation, Ohio Department of Health
Kip Holley, MSW	Research Associate, Civic Engagement and Racial Equity, The Kirwan Institute for the Study of Race and Ethnicity, The Ohio State University
Kendall A. Leser, PhD	Director, Public Health Program, Miami University
Kim E. Nielsen, PhD	Chair, Disability Studies Program, University of Toledo
Samantha Shetterly, BA	Research Assistant, The OSU Wexner Medical Center

Final Recommendations for Population Groups

The 'Findings' sections described above include the suggestions each group of respondents made about how to alleviate barriers to COVID-protective behavior. These respondent-generated suggestions were then combined with valuable additional context and insights provided by the Expert Panels. The resulting 'Final Recommendations to Minimize the Impact of COVID-19' are also presented below for each population group.

Integrated Analysis by Public Health Strategy

The research team also conducted a separate re-analysis of the Initial Analysts' consensus documents, to examine barriers and potential solutions relevant to each individual CDC-recommended public health strategy across all the populations studied. These findings were reviewed by selected members of the *Needs Assessment* survey development team, public health practitioners, and community leaders. The findings of this analysis for each public health strategy are presented below, in the section entitled, 'Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19'.

Top-Level Recommendations

The final step of this multi-stage analysis involved generating Top-Level *Needs Assessment* recommendations. Generated through comprehensive consideration of the separate analyses focused on each population and each public health strategy, these Top-Level Recommendations represent interventions that would mitigate the impacts of COVID-19 in multiple populations by improving access to multiple protective behaviors. In the long term, they will also help to reduce health disparities and improve health outcomes throughout Ohio.

Respondent-Preferred Population Names and Use of Respondent Quotes

The research team reviewed the terms each respondent used to describe the population they represent. Throughout this report, the six focus populations are identified not by the names originally assigned them during survey development but by the names they use to refer to themselves: Black and African American, Latino and Hispanic, Asian and Asian American, Immigrant and Refugee, Rural, and People with Disabilities.

Quotes from respondents are presented throughout the "Findings from Analysis of Respondent Data" sections below. Quotes are presented verbatim except where indicated by [brackets]; these slight changes generally reflect minor corrections or verb tense changes for clarity. To protect the confidentiality of our respondents, quotes are presented without attribution.

Co-Authors

Dr. Nemeth and Dr. Padamsee contributed equally as leaders of this work.

Tasleem J. Padamsee, PhD, MA
Lead Analyst

Dr. Padamsee is Assistant Professor and PhD Program Director in the OSU College of Public Health Division of Health Services Management and Policy, and a Faculty Affiliate of the OSU-James Comprehensive Cancer Center. Dr. Padamsee holds PhD and MA degrees in Sociology, a Graduate Certificate in Women's Studies, and a BA in Psychology. Dr. Padamsee is a health disparities researcher who conducts research at the intersections of social inequality, health care systems, and public policies. She is the Principal Investigator of the *Daughter, Sister, Mother Project*, which conducts studies to understand risk-management decision making among diverse women at high risk of breast cancer. She is also the recipient of multiple federal and foundation grants, and serves as a qualitative methodologist and mixed-methods consultant on studies of topics ranging from opioid misuse to contraceptive access.

Julianna M. Nemeth, PhD, MA
Lead Evaluator

Dr. Nemeth is Assistant Professor in the OSU College of Public Health Division of Health Behavior and Health Promotion, and a Faculty Affiliate of the OSU-James Comprehensive Cancer Center and of the OSU Chronic Brain Injury Program. Dr. Nemeth holds a PhD in Public Health, an MA in Women's Studies, and a BA in World Religion and Ethics. Dr. Nemeth is an intervention scientist with expertise in gathering information necessary to make public health interventions accessible to priority populations and optimizing behavioral interventions to be delivered in community settings to reduce disparities. She is the Principal Investigator on an NIH funded career development grant to optimize a smoking cessation intervention for homeless youth and of an OSU Chronic Brain Injury grant to understand community health center needs in identifying and treating brain injury among domestic violence survivors.

2

Findings and Recommendations

Findings and Recommendations for *Needs Assessment* Populations

Demographics

As shown in Table 3, a total of 363 respondents completed the *Needs Assessment* survey. Of this total, 350 (96.4%) identified themselves as a representative of one of the six selected focus populations. Just over one third of respondents (35.54%) represented the rural populations spread throughout the state. Respondents representing Black and African American populations were the next most numerous group (21.76%), followed by those representing Asian and Asian Americans (11.29%), Immigrant/Refugee individuals (9.64%), Individuals with Disabilities (9.64%), and Latinos and Hispanics (8.54%). Of the 13 respondents who identified themselves as representing "Other" groups, 7 explicitly represented low-income or homeless populations and 2 represented senior citizens.

Among respondents who identified their gender, more than three quarters (76.90%) identified as female. In the overall sample a little over one third of respondents were between 30 and 49 years old at the time of the survey; almost half were 50 or older. These age distributions differed substantially across represented populations, however. Almost three quarters (72.18%) of respondents were currently employed at the time of the survey. Of those employed, more than half (51.53%) were employees of non-profit organizations, while about a third (33.97%) were employed in some level of government and 11.83% worked in for-profit organizations.

The proportion of respondents who identified themselves as members of the community they represent within the *Needs Assessment* varied from about 90% (among respondents representing Asian and Asian American populations) to 40% (among respondents representing Individuals with Disabilities) (see Table 4). Respondents also have a variety of roles in relationship to the communities they represent: just over 25% work in non-profit organizations serving these communities, while approximately 15% work in each of the three next most common categories – community health centers, local public health departments, and hospitals.

Table 3. Respondent Demographics

	Black and African American n(%)	Latino and Hispanic n (%)	Asian and Asian American n (%)	Immigrant and Refugee n (%)	Rural n (%)	People with Disabilities n (%)	Other n (%)	Full Sample n (%)
GENDER								
Female	46 (58.23)	21 (67.74)	22 (53.66)	23 (65.71)	79 (61.24)	23 (65.71)	9 (69.23)	223 (61.43)
Male	17 (21.52)	3 (9.68)	8 (19.51)	6 (17.14)	25 (19.38)	6 (17.14)	2 (15.38)	67 (18.46)
Other [1]	16 (20.25)	7 (22.58)	11 (26.83)	6 (17.14)	25 (19.38)	6 (17.14)	2 (15.38)	73 (20.11)
AGE								
17 or younger	0 (0.00)	1 (3.23)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.28)
18-29	2 (2.53)	2 (6.45)	10 (24.39)	1 (2.86)	3 (2.33)	1 (2.86)	1 (0.00)	20 (5.51)
30-49	27 (34.18)	10 (32.26)	8 (19.51)	16 (45.71)	56 (43.41)	10 (28.57)	4 (57.14)	131 (36.09)
50 or older	41 (51.90)	12 (38.71)	16 (39.02)	16 (45.71)	56 (43.41)	21 (60.00)	6 (46.86)	168 (46.28)
Missing/ Prefer not to answer	9 (11.39)	6 (19.35)	7 (17.07)	2 (5.71)	14 (10.85)	3 (8.57)	2 (0.00)	43 (11.85)
EMPLOYMENT								
Government [2]	18 (22.78)	7 (22.58)	4 (9.76)	5 (14.29)	42 (32.56)	12 (34.29)	1 (7.69)	89 (24.52)
Private for profit [3]	8 (10.13)	1 (3.23)	6 (14.63)	6 (17.14)	9 (6.98)	1 (2.86)	0 (0.00)	31 (8.54)
Private non-profit [4]	28 (35.44)	12 (38.71)	8 (19.51)	12 (34.29)	52 (40.31)	13 (37.14)	10 (76.92)	135 (37.19)
Self-employed [5]	2 (2.53)	1 (3.23)	0 (0.00)	1 (2.86)	2 (1.55)	1 (2.86)	0 (0.00)	7 (1.93)
Not employed	2 (2.53)	0 (0.00)	8 (19.51)	2 (5.71)	0 (0.00)	0 (0.00)	0 (0.00)	12 (3.31)
Retired	4 (5.06)	0 (0.00)	6 (14.63)	1 (2.86)	1 (0.78)	2 (5.71)	0 (0.00)	14 (3.86)
Other/Missing	17 (21.52)	10 (32.26)	9 (21.95)	8 (22.86)	23 (17.83)	6 (17.14)	2 (15.38)	75 (20.66)
TOTALS	79 (21.76)	31 (8.54)	41 (11.29)	35 (9.64)	129 (35.54)	35 (9.64)	13 (3.58)	363 (100)

1 Prefer not to answer, missing, and self-designated "male and female" (n=1)

2 Local, state, or federal government employee

3 Employee of a private for-profit company or business, or of an individual, for wages, salary, or commission

4 Employee of a private not-for-profit, tax exempt or charitable organization

5 Self-employed in your own or family business, professional practice, or farm

Table 4. Respondent Membership and Roles in Relation to Represented Populations

	Black and African American n(%)	Latino and Hispanic n (%)	Asian and Asian American n (%)	Immigrant and Refugee n (%)	Rural n (%)	People with Disabilities n (%)	Other n (%)	Full Sample n (%)
MEMBER OF THE COMMUNITY								
Yes	46 (58.23)	24 (77.42)	37 (90.24)	16 (45.71)	85 (65.89)	14 (40.00)	5 (38.46)	227 (62.53)
No	28 (35.44)	7 (22.58)	1 (2.44)	12 (34.29)	36 (27.91)	19 (54.29)	6 (46.15)	109 (30.03)
Prefer not to Answer	4 (5.06)	0 (0.00)	2 (4.88)	5 (14.29)	6 (4.65)	2 (5.71)	1 (7.69)	20 (5.51)
Missing	1 (1.27)	0 (0.00)	1 (2.44)	2 (5.71)	2 (1.55)	0 (0.00)	1 (7.69)	7 (1.93)
ROLE WITH THE COMMUNITY [1]								
Local public health department	10 (12.66)	2 (6.45)	1 (2.44)	1 (2.86)	39 (30.23)	3 (8.57)	1 (7.69)	57 (15.70)
Other governmental agency	9 (11.39)	5 (16.13)	1 (2.44)	4 (11.43)	0 (0.00)	5 (14.29)	1 (7.69)	25 (6.89)
Hospital	6 (7.59)	3 (9.68)	5 (12.20)	1 (2.86)	33 (25.58)	3 (8.57)	0 (0.00)	51 (14.05)
Community Health Center	20 (25.32)	4 (12.90)	3 (7.32)	5 (14.29)	21 (16.28)	1 (2.86)	4 (30.77)	58 (15.98)
Pharmacy	1 (1.27)	1 (3.23)	0 (0.00)	0 (0.00)	1 (0.78)	0 (0.00)	0 (0.00)	3 (0.83)
Other medical provider	1 (1.27)	0 (0.00)	0 (0.00)	0 (0.00)	6 (4.65)	1 (2.86)	0 (0.00)	8 (2.20)
Non-profit organization	13 (16.46)	11 (35.48)	18 (43.90)	18 (51.43)	15 (11.63)	16 (45.71)	2 (15.38)	93 (25.62)
Religious Organization	6 (7.59)	2 (6.45)	4 (9.76)	2 (5.71)	0 (0.00)	0 (0.00)	0 (0.00)	14 (3.86)
Other, Missing	13 (16.46)	3 (9.68)	9 (21.95)	4 (11.43)	14 (10.85)	6 (17.14)	5 (38.46)	54 (14.88)
TOTALS	79 (21.76)	31 (8.54)	41 (11.29)	35 (9.64)	129 (35.54)	35 (9.64)	13 (3.58)	363 (100)

1 Question: "In your role, how do you have primary contact with the community?"

Findings and Recommendations for *Needs Assessment* Populations

Black and African American Communities in Ohio

Background

Terminology

Needs Assessment key populations are identified throughout this document using the terminology preferred by respondents. This section focuses on Black and African Americans.
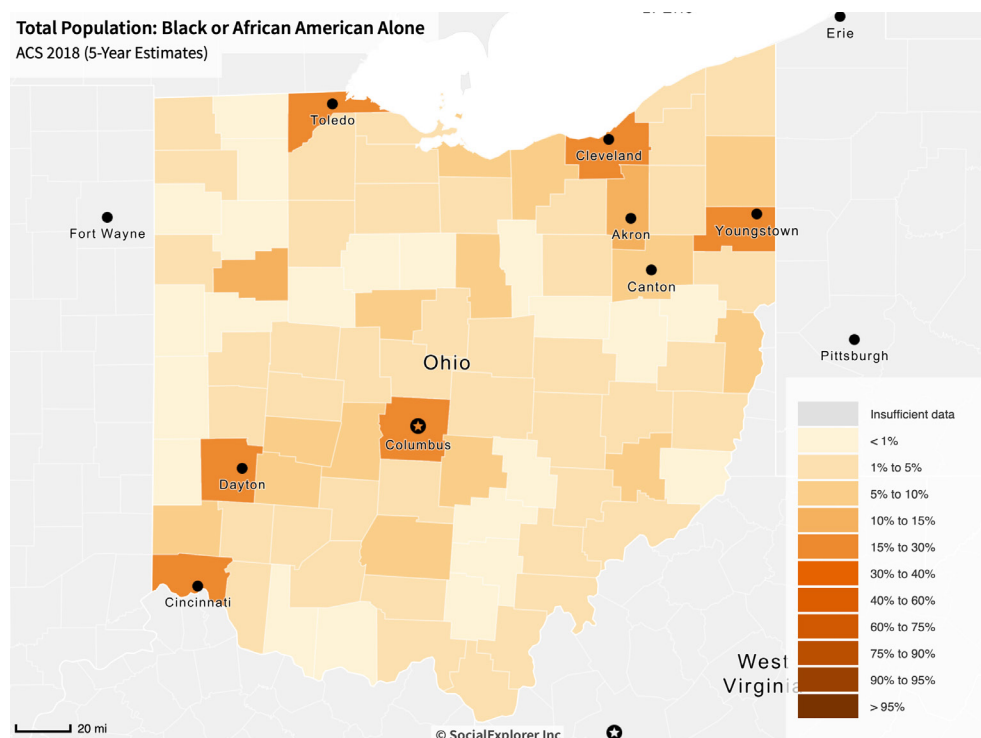
The terms 'African American' and 'Black' are both used to name cultural and lived experiences. Up until the 1960s when there was increased migration to the United States from places including the Caribbean, Africa and Europe, most people who identified as 'black' in the U.S. were descendants of enslaved Africans (Adams, 2020). In the late 1980's, Jesse Jackson popularized the use of the term 'African American' over 'black ' – a deliberate move on the part of Black communities to move away from race and towards a shared ethnicity and cultural claims to African heritage and American citizenship (Martin, 1991). Although some recent immigrants may claim an African American identity, many may identify instead as Black, as African, or as both. Though the word 'black' has been used by traffickers of human slaves since colonial days, a move towards the claim of 'Black', with a capital "B," designates for many making visible race as a historically-created cultural construct, and claiming Black as an identity of shared power and lived experience regardless of country of origin (Adams, 2020). This meaning is seen in both the Black Power and Black Lives Matter movements, although capitalization of Black in all usages is still under debate (Appiah, 2020).

Population

The U.S. Census Bureau uses the term 'Black Americans' to describe individuals with ancestral origins tied to any of the Black racial groups in Africa (U.S. Census Bureau, 2020a). Black and African Americans represent 13.1% of Ohio's population, including more than 1.5 million residents (U.S. Census Bureau, 2020b). Black and African American residents are scattered throughout the state, with the largest populations residing in Cuyahoga (371,298), Franklin (283,279), Hamilton (208,770), and Montgomery (109,355) counties. The median age of Black and African American Ohioans is 34.1 years, compared to 39.1 years for all Ohio residents (Ohio Development Services Agency, 2019a).

Map 1. Percent Black and African American Residents in Ohio, By County

Total Population: Black or African American Alone
ACS 2018 (5-Year Estimates)

Legend:
- Insufficient data
- < 1%
- 1% to 5%
- 5% to 10%
- 10% to 15%
- 15% to 30%
- 30% to 40%
- 40% to 60%
- 60% to 75%
- 75% to 90%
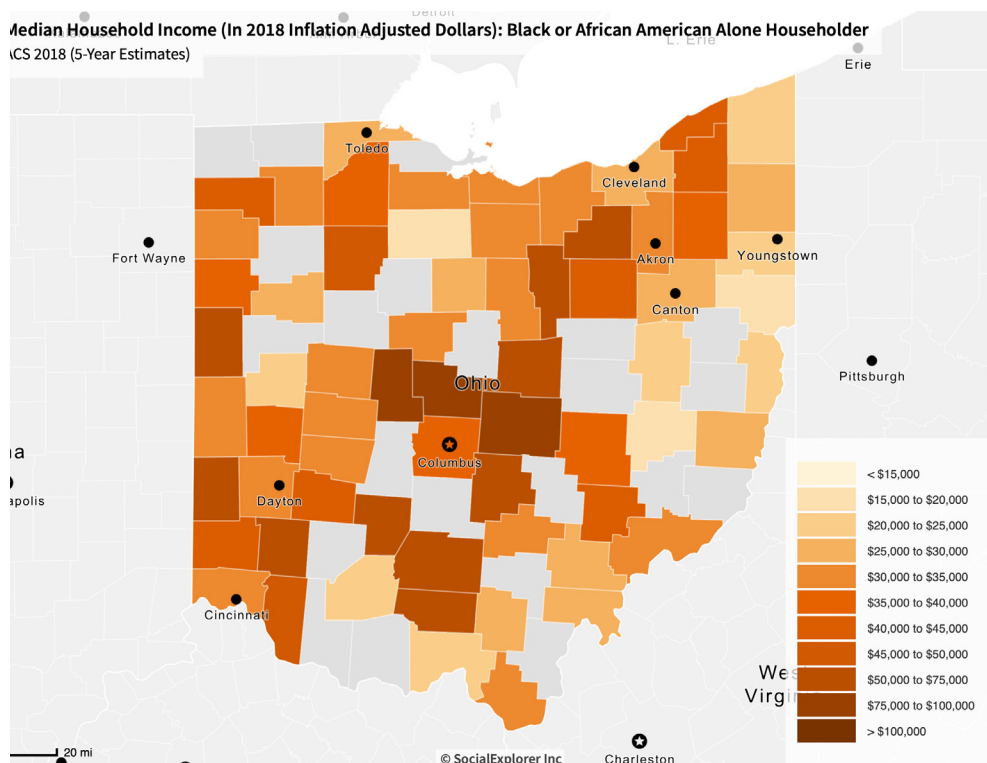- 90% to 95%
- > 95%

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Source: *Map 1.* Percent Black and African American Residents in Ohio, By County. Adapted from "Social Explorer," by C. M. Bijou, 2020, *Social Explorer.* Retrieved July 2020, from https://www.socialexplorer.com/db7e5fe34d/view. 2020 by Social Explorer Inc.

As of 2018, there were 92,782 foreign born Black individuals living in Ohio (Migration Policy Institute, 2018). While most foreign-born Black populations in the U.S. are from the Caribbean, including Jamaica and Haiti, a majority of recent Black immigrants to Ohio come from Africa – including Somalia, Ghana, Ethiopia, Kenya and other countries (Anderson, 2015; New African Immigrants Commission, 2018). African immigrants account for 16.7% of Ohio's foreign-born population (Migration Policy Institute, 2018).

Income and Education

The median household income of Black and African American Ohioans is $31,699, substantially lower than the general Ohio population median of $56,000. Household income among Black and African Americans varies widely by county. Median household income is relatively high in Franklin County ($37,130), for instance, and lower in other counties such as Cuyahoga ($29,295) and Seneca ($18,125). In 2017, 14.3% of Black and African American Ohioans were living below the poverty line, compared to 11.1% of all Ohioans (Larrick, 2019). Approximately 26.0% of Black and African American Ohioans have obtained a post-secondary degree, compared to 38.0% of all Ohioans (Ohio Development Services Agency, 2019a).

Map 2. Median Household Income among Black and African American Ohioans*

*Gray counties indicate that sufficient data are not available

Source: *Map 2*. Median Household Income among Black and African American Ohioans. Adapted from "Social Explorer," by C. M. Bijou, 2020, *Social Explorer*. Retrieved July 2020, from https://www.socialexplorer.com/394dee327f/view. 2020 by Social Explorer Inc.

Historical and Systemic Racism

Black and African Americans have been part of Ohio's history since the state's creation in 1787 (University of Akron, 2008). In 1830, approximately 9,600 Black and African Americans resided in Ohio; by 1950 this group represented 6% of the state's total population. Black and African American Ohioans have always faced considerable racism, discrimination, and violence. In the early 1800s, Ohio legislators passed the "Black laws", which required any Black person to post a $500 bond to gain entry into the state. These laws also restricted employment opportunities for Black Americans and prevented them from voting, serving on juries, testifying against Whites, and enrolling their children in public school (Middleton, 2005). A hundred years later – in the 1920s – support for the Ku Klux Klan (KKK) rose in Ohio, and Klan members were elected to public office in some major cities, including Akron (Ohio History Connection, 2020a). At the same time, Black Americans were actively prohibited from living in White neighborhoods (by redlining and other widespread discriminatory policies) and were frequently subjected to discrimination in public spaces (WOSU Public Media, 2017). These and other forms of historical and systemic oppression in Ohio – as in the country at large – have had long-term health, economic, and social impacts on Black and African American communities.

Black and African Americans have also been subject to state-sponsored racism in the form of medical experiments. Throughout the 20th century, the U.S. government sponsored several unethical research studies on Black Americans (Washington, 2006). The most famous of these was the Tuskegee experiment, which took place from 1932 to 1972 in Tuskegee, Alabama. The U.S. Public Health Service (PHS) funded the Tuskegee experiment to study the natural progression of syphilis, recruiting 600 Black men with promises of free health care for various ailments (Nix, 2019). PHS doctors lied to participants about the goals of the study throughout its duration, and actively prevented them from receiving syphilis treatment. By the end of the study, 138 participants had died from syphilis or related complications.

Unfortunately, similar unethical experiments also took place in Ohio. In 1952, more than 180 healthy Black inmates at the Ohio State Prison were injected with live cancer cells as part of a clinical study funded by the National Institutes of Health (NIH) (Johnson, 2018). Study leader Dr. Chester M. Southam of the Sloan-Kettering Institute misinformed inmates about the potential dangers of participating in the experiment (Alliance for Human Research Protection, 2014). Two decades later, Dr. Eugene L. Saegner of the University of Cincinnati exposed 88 cancer patients – of whom 60% were Black, and 3 were children - to high doses of radiation in a study funded by the Department of Defense. 25 patients died within the first two months of the experiment (Healy, 1994; Advisory Committee on Human Radiation Experiments, 1996).

These state-sanctioned scientific abuses have led to deep-seated and widespread distrust of public health and the medical system within the American Black/African American communities. Well documented by a range of studies, Black Americans are more likely to distrust medical professionals than Hispanics and Whites (Armstrong et al., 2007). This distrust is largely driven by the perception that the healthcare system values profit and reputation over the health of patients (Armstrong et al., 2008; Shoff & Yang, 2012). Furthermore, Black Americans are more likely than others to report experiencing racial discrimination from their own healthcare providers (Armstrong et al., 2013; Bird & Bogart, 2001; Hausmann et al., 2008).

Health Profile

Black and African Americans have a lower life expectancy than other major racial/ ethnic groups in Ohio. At birth, Black Ohioans can expect to live approximately 73 years, which is 4 years less than the life expectancy for White Ohioans and 9 years less than for Hispanic Ohioans (Ohio Department of Health, 2019).

Infant mortality is also substantially higher among Black Ohioans than other groups. In 2017, the infant mortality rate for Black Ohioans was triple the rate for White Ohioans and double the rate for Hispanic Ohioans. Ninety percent of all Black infant deaths in Ohio occurred in Butler, Cuyahoga, Franklin, Hamilton, Lucas, Mahoning, Montgomery, Stark, and Summit counties (Ohio Department of Health, 2018a). Furthermore, 14.1% of all Black infants born in Ohio have low birth weights (less than 5lbs 8 oz.), compared to 7.4% of White infants, 8.7% of Hispanic infants, 8.9% of Asian infants, and 6.9% of Native American infants (Ohio Department of Health, 2019).

Blacks and African Americans also suffer higher rates of chronic disease than most other racial groups in Ohio. Almost 40% of Black Ohioans have been diagnosed with hypertension, compared to 34.9% of Whites, 28.1% of Hispanics, 13.8% of Asians, and 43.5% of Native Americans (Ohio Department of Health, 2019). Black Ohioans also suffer from diabetes at higher rates than Whites and Hispanics (Ohio Department of Health, 2019). Similarly, 17.2% of Black children in Ohio are suffering from asthma, compared to 6.3% of White children and 8.4% of Hispanic children. Black and African American Ohioans more often die of heart disease, stroke, diabetes, and cancer deaths compared than members of all other racial and ethnic groups (Ohio Department of Health, 2018b).

Challenges Specific to COVID-19

Similar racial disparities have appeared in the midst of the novel coronavirus (COVID-19) pandemic. Since the start of the pandemic in Ohio, 19.6% of COVID-19 cases, 28.4% of deaths, and 17.9% of hospitalizations have been among Blacks and African Americans, despite the fact that they represent less than 15.0% of Ohio's total population (Ohio Department of Health, 2020b). The racial disparities in COVID-19 cases, deaths, and hospitalizations are related to limited access to healthcare within Black communities and disproportionate rates of underlying health conditions among Blacks and African Americans (Godoy, 2020)

Compared to other groups, Black Americans are overrepresented among essential workers, increasing their risk of COVID-19 exposure (Rho et al., 2020). Across the U.S., Black Americans represent 13% of the population but 17% of all essential workers (Rho et al., 2020; U.S. Census Bureau, 2020c). Blacks and African Americans represent 26% of all public transit workers, 19.3% of childcare workers, and 17.5% of health care workers (Rho et al., 2020). Not only are Black Americans overrepresented among essential workers, they are also amongst the hardest hit when it comes to job and wage loss. Forty-four percent of Black Americans report that someone in their household has lost a job or income as a result of the pandemic, compared to 38% of Whites and 61% of Hispanics. Furthermore, 73% of Black Americans report that they do not have emergency funds, compared to 17% of Whites and 70% of Hispanics (Lopez et al., 2020).

Religion, Family, and Health

Religion has been a centerpiece of Black and African American culture for centuries and Black Americans remain somewhat more religious than other groups today. Eighty-two percent of Black/African Americans report a religious affiliation, compared to 80% of Hispanics, 76% of Whites, and 69% of Asians. While most Black Americans identify as Christians (79%), Black Muslims account for 20% of all Muslims living in the U.S. (Masci et al., 2018). Black Americans' religious beliefs play an important role in their healthcare beliefs and decisions (Holt et al., 2014; Levin et al., 2005; Robinson et al., 2014).

Religious communities and family networks play important roles in the lives of Blacks and African Americans, as sources of social, emotional, and financial support (Taylor et al., 2017). African Americans have a strong sense of community and turn to their social networks for informal support related to transportation, finances, illness, and a range of stressors (Benin & Keith 1995; Taylor et al., 2015). Strong social ties and social support have been linked to improved mental and physical health outcomes, and therefore represent a point of strength within the African American community (Berkman & Kawachi, 2014; George, 2011).

Findings from Analysis of *Needs Assessment* Data from Respondents Representing Black & African American Ohioans

Description of Respondents: 79 respondents representing Black and African American communities in Ohio completed the *Needs Assessment* survey. This is not a general sample of African Americans, but a purposeful sample of individuals who represent organizations, agencies, and community groups that work with Black and African American populations. About two thirds of respondents identified as Black or African American themselves. Working in community health centers seemed to be the most frequent way (but not the only way) respondents have contact with this population. The majority of respondents were employed in the health care and social assistance category. Our respondents generally serve high-need groups, so the findings below apply most clearly to that subset of African Americans in Ohio.

I. Strengths of the Community

Respondents identified a broad range of community strengths that should be used as part of the COVID-19 response within Ohio's Black and African American communities. These commonly included:

- Churches and faith organizations, Black ministers, reliance on faith

- A connected community that is culturally strong, trusting, with many gatekeepers, strong kinship ties, sense of collectivism, and value on supporting one another

- Community attributes: resilience, protecting one-another, loving, giving, committed

- Volunteerism – for instance, a lot of mask-making groups and individuals

- Trusted leaders, who know the communities' needs

- Organizations that work in the community, including public schools and community colleges, integrated health departments and primary care, food distribution sites

- Significant social networks

- Organized protests

- Barber shops and hair salons

II. Key Barriers to Using Public Health Strategies to Minimize the Impact of COVID-19

These categories represent the most common barriers to Black and African American communities using public health strategies to minimize the impact of COVID-19. These key barriers were mentioned by multiple respondents (ranging from 5 to 30), and they affect communities' ability to use multiple public health strategies. A summary of each barrier is followed by bullets that detail specific instances and problems commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

Topic A: Hygiene

Topic B: Social Distancing

Topic C: Mask-Wearing and Personal Protective Equipment (PPE)

Topic D: COVID-19 Testing

Topic E: Contract Tracing

Topic F: Isolation

Topic G: Self-Quarantining

Topic H: Healthcare Access

1. Lack of access, availability, and cost

This barrier limits the ability of community members to use protective hygiene practices, utilize PPE and COVID-19 testing, and self-quarantine when necessary (Topics ACDG).

- Community members lack access to masks, cleaning agents, disinfecting supplies, gloves, laundry facilities, and warm running water.

- These resources are often expensive, and general un-affordability is exacerbated by

  - price gouging

  - lack of credit cards (to enable purchasing items online)

- Individuals don't always know where to get necessary self-protection items

- Stores often don't have these items in stock

- Testing is unavailable in general, and specifically unavailable in community neighborhoods. People would use it if it was available.

"Several families we contacted to discuss needs said they did not have access to masks or cleaning supplies and that they were concerned about not being safe from the virus because of this."

"Many [people] do not have the money or funds to buy face masks; many do not have washers or dryers to wash face masks on a daily basis."

"[Individuals are unable] to pay if there is a cost associated with testing."

2. Racism and lack of trust in public entities

The history of racist public policy, lack of trust in government officials, and fear of being targeted by the police or perceived of as a criminal limit individuals' use of protective advice, hygiene practices, PPE, and contact tracing (Topics ACE).

- Black people are historically mistreated in general, and specifically during a crisis

- Black people have been particularly mistreated by medical professionals and researchers.

- Black people fear police brutality, being perceived as criminals when wearing a mask

- These fears are particularly acute for men

"This community has been through slavery, government institutions of racism, and medical apartheid. They are very resistant to government orders while experiencing differential treatment."

"Many tests and studies already use African-Americans as 'guinea pigs'."

"Wearing masks is dangerous for many in the Black community who already experience racial profiling while shopping and completing other daily activities. Many fear being mistaken for criminals/robbers while wearing masks in grocery stores and gas stations."

3. Lack of personal transportation

Lack of personal transportation means that many members of the community rely on public transportation to get to work and move around the community, as well as to seek healthcare or a COVID-19 test. This necessity impedes the use of protective hygiene practices and social distancing (Topics ABDH).

"I know a single mother of four young children that has had an extremely difficult time accessing cleaning products and masks for her children. Clearly, she has not wanted to take public transportation, nor ride in a car with anyone because of the lack of ability to social distance in a car with her children. Her financial resources are very limited, and without Internet access she lacks the necessary resource base to locate where to purchase masks or access online grocery delivery services. She has had to rely on organizations such as ours, or friends and family, to shop for her in the midst of shortages and deliver items."

"Even if your doctor says to get a test, and orders one, if [someone] lack[s] a car, they can't get there."

4. Housing challenges

Housing conditions within Black and African American communities affect members' ability to use protective hygiene practices and social distancing, to practice isolation and self-quarantining when needed, and to participate in contact tracing (Topics ABEFG).

- Crowded, dense, or small housing units

- Multi-generational and multi-family housing units

- Congregate housing arrangements, such as apartments, prisons, halfway houses

- Shelters and public housing

- Homelessness and housing instability

- Densely populated neighborhoods

- Lack of separate temporary shelter for confirmed cases

- Many people must share each bathroom

- Transient individuals change phone and address frequently, don't know others' contact information

"Multiple generations [are often] in one household, with different perceptions of being safe (i.e. coughing into elbow instead of hands)."

"[Many people] lack...access to multiple bathrooms in a house."

"[Some groups are] very transient. Switching of cell numbers and addresses are common. This makes [contact] tracing difficult."

5. Need to work

Many members of these communities must go to work, often in low-wage jobs, to provide for their families and maintain a basic income. This necessity limits individuals' ability to use protective hygiene practices and social distancing, and to practice isolation and self-quarantining when needed (Topics ABFG)

- Working as essential workers

- Working face-to-face with the public

- No option to work remotely or from home

- Working in low-wage jobs and living in poverty even with those jobs

- Must work to be able to provide for the family/household

- Mandatory attendance at work

- Fear of losing benefits if one stays home from work

- No sick time arrangements, employer doesn't allow time off work

- Working in environments that do not reinforce social distancing or other guidelines

"Inability to work from home; many in this population work in essential jobs like food service, retail, janitorial, etc."

"Some people have very low income and may fear losing needed economic security benefits (SNAP) if they don't keep going to work."

"Most people in the Black community can't afford to miss work and their jobs are often on the line if they miss."

"[Many people are] working in environments where management either does not advocate or provide protective barriers, and where 6 feet of social distancing is not possible (i.e. cashiers)."

6. Socialization and Values

The strong need to maintain social contact and activities, based in community values, is a barrier that impedes the use of protective hygiene practices and social distancing (Topics AB).

- There is social pressure to socialize – collective, communal culture

- Social distance is counter to cultural values

- There is an expanded definition of family

- There is a desire to maintain in-person contact

- There is a need for social support and contact, particularly during certain times such as pregnancy, funerals, celebrations

- There is a desire to attend church and maintain religious traditions

"It is perceived as rude for me to drop items off at my grandfather's house and not come in and visit. I have to do that anyway and he just has to be mad."

"Hugging and kissing others is a natural way of showing family/ friends they are cared for."

"Religion is important and people will tend to gather despite rules."

7. Caregiving responsibilities

Caregiving responsibilities impede the use of protective hygiene practices and social distancing, as well as isolation and self-quarantining when needed (Topics ABFG).

- Some individuals are single parents and lack alternate childcare options

- Children don't understand distancing

- Some are caring for and supporting the elderly

- Distancing is against cultural values and practices

"[Many lack] availability of alternate caregivers (childcare, elder care, disabled person care)."

"African Americans are very nurturing and will not leave a sick person alone to fend for themselves."

8. Lack of health information and limiting health beliefs

Community members often lack up-to-date health information relevant to COVID-19. This can impede the use of protective hygiene practices, social distancing, PPE, COVID-19 testing, and appropriate participation in contact tracing (Topics ABCDE).

- Limited access to updated health information

- Inconsistent and confusing messaging

- Misconceptions and lack of comprehension

- Misinformation

- Lack of culturally relevant information

- Information not presented at an appropriate reading level

- Language barriers – lack of translated health information.

These information gaps, as well as some health beliefs, limit understanding and ability to act on accurate information related to COVID-19.

- Not taking the virus seriously

- Community members do not think they are susceptible to COVID-19

- Community members are too reliant on whether someone "looks sick"

- Community engages in risky health behaviors

- Some believe they will contract COVID-19 no matter what because of high-risk, pre-existing conditions

- Poor understanding of what PPE is, how to use it, or why it's necessary

- Not knowing where to be tested, or who can be tested

- Changing habits is difficult

- Witnessing many people not wearing masks, keeping socially distant

"[Communities need] more details that [deliver] health messages at [a] lower grade level."

"[There is a] lack of understanding of how face coverings help prevent spread of disease."

"[Many] lack...clarity on what testing will result in. Is it just verification or do you get treatment?"

9. Lack of technology

Lack of access to smart phones, computers, and Internet limits community members' ability to practice social distancing, participate in contact tracing, and use telehealth substitutes for in-person healthcare (Topics BEH).

- Impairs remote activities

- Many want to use remote means to attend church (for instance), but do not have the means

"Most healthcare practices are using telehealth, which may be a foreign and impersonal way of "seeing" a patient. [Individuals may] lack…understanding of the technology, privacy [issues], and [may be] without access to home computer, Internet or Smartphone."

"[Some have] limited ability to shop online. Many folks in this community do not have the credit cards or ability to purchase items online instead."

10. Lack of health insurance, lack of access to trusted healthcare

This barrier impedes use of PPE, COVID-19 testing, and healthcare related to COVID-19 (Topics CDH).

- No health insurance at all
- Loss of health insurance with loss of job
- Unaffordability of healthcare
- Lack of access to primary care providers
- Don't know where to get healthcare without insurance
- Lack of trust in healthcare system, racism, and poor treatment by providers
- Medical professionals refusing to test or not recommending testing, despite symptoms
- Unable to get a test without a source of healthcare (for a testing referral)
- Too much experimental testing on poor people already

"[There is] inconsistent access to health care due to lack of insurance or underinsurance."

"Distrust of the government. Young black men: "They are planning on killing us all, so why listen?" Young Latino men: "I have to work and I am willing to take the chance and besides I most likely will not live to be old.'"

Other Barriers

These additional barriers represent separate issues reported by multiple respondents, but not as frequently as the 10 key barriers described above.

- Topic A – Hygiene

    - Schools – some do not let students wash hands; they have crowded classrooms; children are coming to school sick because parents have to work; high school students have to change classrooms throughout the day; school does not share sufficient health information

- Topic B – Social Distancing

    - Needing to access overcrowded social service agencies

    - Black men in particular may discount the threat of the virus as they do not want to appear weak

> *"[This] population [is] uncomfortable with strangers asking questions and 'getting in their business'."*

- Topic C – PPE

    - Discomfort

    - Not liking how masks look

    - Having a disability – unable to breathe in mask; masks hinder deaf peoples' ability to communicate

    - Reusing masks too much until they are dirty

- Topic D - Testing

    - Fear of test – swab is a deterrent, rapid testing would help

- Topic E – Contact Tracing

    - Concerns about privacy, uncomfortable speaking to a stranger

    - Not sure how their information will be used

    - Worried about effects on employment

- Topic H – Healthcare Access

    - Fear of being exposed to COVID-19 at the doctor's office

III. Key Ideas (Solutions) to Address Barriers and Minimize the Impact of COVID-19

These categories represent the most common solutions suggested to help Black and African American communities use public health strategies to minimize the impact of COVID-19. These key ideas were mentioned by multiple respondents (ranging from 5 to 30) and would facilitate communities' ability to use multiple public health strategies. A summary of each proposed solution is followed by bullets which list details and specifics commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

1. Provide resources directly

The most commonly suggested ideas to address the barriers described above focus on direct provision of resources. These approaches would help improve community members' ability to utilize protective hygiene, social distancing, PPE, COVID-19 testing, isolation, and self-quarantining (Topics ABCDFG).

- Free or low-cost supplies, including masks, gloves, cleaning products

- General supplies including meals and Internet service

- General resources including support groups, social support for elderly and children

- Free, community-based COVID-19 testing, including mobile-van testing, walk-through testing, testing at work, drive-through testing

- Direct financial support and in-kind support such as housing assistance

- Emergency pay, unemployment; facilitated stimulus payments

- Use of community organizations and members to distribute supplies and resources

- Delivery of supplies and resources directly to homes when necessary

- Availability of touchless sanitizer in public places

"Distribute free disposable white or multi-colored masks at neighborhood churches, stores, playgrounds and barbershops. Do not distribute or encourage black masks."

"[Institute] door drop distribution of disinfecting and personal care products that cannot be purchased with SNAP/WIC benefits."

"[Provide] hygiene stations at the neighborhood level."

2. Create housing options

Housing support and options would help improve use of hygiene, social distancing, isolation, and self-quarantining (Topics ABFG).

- Identify housing where sick people can go

- Create a pause in rent, utilities, other major expenses

- Utilize hotels and motels, unfilled public housing, other interim housing

- Utilize convention centers, schools, emergency evacuation locations

- Ease prison overcrowding by reducing sentences for minor offenses

"[Have] a community worker help [sick individuals] figure out…the best way to isolate in their home; give them a concrete plan to help them understand."

"[Provide] temporary housing for confirmed or suspected cases of COVID-19."

"Use hotels as options for non-ill family members to quarantine, for free."

"Release prisoners [who are in jails/prisons] for minor offenses. Quit privatizing prisons as a business. [The] profit motive encourages more inmates. Major policy changes [are] needed to ease [prison] overcrowding."

3. Increase and improve COVID-related education

High-quality education about a range of topics could be developed and used to improve use of protective hygiene, social distancing, PPE, testing, contact tracing, isolation, and self-quarantining. Education should be community-appropriate and tailored (Topics ABCDEFG).

- Possible topics for community education

  - The severity and real threat of COVID-19
  - Mask efficacy
  - Proper hand washing
  - Importance of cleaning
  - How to distance within the home
  - Guidelines for sharing meals and worship
  - Staying connected
  - Creative ideas for spending time together
  - Staying on course for the long term
  - Plans for leaving the house
  - How contact tracing works
  - Why contact tracing is important
  - Isolation vs. social distancing
  - When & why isolation is important
  - How to isolate

- Modes of delivery

  - Flyers
  - Pamphlets
  - Social media
  - Yard signs
  - Community signage
  - Demonstrations
  - YouTube videos

- Culturally relevant messaging with diverse graphics

- Low literacy level, lots of visuals

- Make materials available in multiple languages, offer translation services

- Use validated messaging

- Use entertainment

- Also educate police, EMS, and schools

- Provide incentives for education

> *"Utilize church platforms to communicate safety practices. Have other community influencers do short videos or share on social media."*

4. Improve transportation options

Creating safe transportation options would help address hygiene, social distancing, and testing barriers (Topics ABD).

- Increase frequency of public transportation

- Issue free bus passes

- Clean public transportation vehicles more frequently

- Increase safety of buses by adding plexiglass barriers, etc.

- Provide free transportation to testing

5. Improve employment policies

Improving policies in workplaces could make them safer, and address barriers to hygiene, social distancing, isolation, and self-quarantining (Topics ABFG).

- Ensure workplaces are following state and public health guidelines

- Ensure that employers accept healthcare provider recommendations

- Ensure that individuals can maintain their jobs if they have to isolate or self-quarantine

"[Provide] free individual transportation to stores."

"Increase markers and reminders for social distancing at bus stops and other public services/ facilities."

"Make masks available through employers."

"[Institute] uniform policies about employer acceptance of practitioners' recommendations."

6. Use trusted community members and resources

Services, information, and resources should be provided by trusted community members and sites, to help address barriers to hygiene, use of PPE, and testing (Topics ACD).

- Use trusted messengers from within communities to deliver educational messages

- Engage churches, community centers, dollar stores, gas stations, support organizations, and key community members to deliver supplies and as distribution sites

- Utilize community health workers, individuals who look and speak like the community

- Increase support to organizations who are already distributing and delivering needed supplies

- Identify where people are comfortable going (trusted community centers or churches) and make those the testing sites

- Train and use members of the community as much as possible (except, per some respondents, as contact tracers)

"Provide the needed assistance to the community by utilizing persons that look and speak like the people in that community."

"Provide PPE (particularly face masks) to area agencies and churches to distribute to residents."

"Provide access to health professionals and health education through trusted community partners."

Other Ideas

These additional ideas represent separate potential solutions reported by multiple respondents, but not as frequently as the 6 key ideas described above.

- Topics F&G – Isolation & Self-Quarantining

  - Provide alternate caregivers, and/or caregiver assistance

- Topic B – Social Distancing

  - Keep businesses closed until there is a vaccine
  - Require stay-at-home
  - Don't re-open until we are truly ready

- Topic C – PPE

  - Have public conversations about racism, reduce racism
  - Penalize unnecessary calls to the police on Black people
  - Reduce racial profiling

- Topic D – Testing

  - Come up with plans to provide treatment before testing people

- Topic E – Contact Tracing

  - Do in-person contact tracing

- Topic F – Isolation

  - Have community health workers develop isolation plans for different housing situations
  - Include home visits

"Identify the social determinants of health that mostly affect that community and begin to implement a "sustainable" approach to reducing barriers to care."

IV. Trusted Community Resources and Linkages

Respondents also identified many trusted community resources – including categories of organizations, individual organizations, and individuals. Categories of organizations most commonly included:

- For health information:

  - Local health departments
  - Community health centers and workers
  - Local hospitals
  - Friends and neighbors
  - Churches
  - Community-based social services agencies
  - Trusted community members and leaders
  - Schools

- For medical care:

  - Emergency departments
  - FQHCs and community health centers
  - Area health centers
  - Health departments

- For social service information & resources:

  - Churches and pastors
  - Food pantries
  - A wide range of social service agencies and non-profit organizations

Final Recommendations to Minimize the Impact of COVID-19 on Black and African American Populations in Ohio

These recommendations reflect the data provided by respondents representing Black and African American communities as well as additional context and insight provided by our panel of expert researchers, public leaders, and practitioners with expertise focused on Black and African American communities.

1. **Center the COVID-19 response in the organizations and cultures of local communities, implementing public health activity through partnerships with trusted community groups, empowering local organizations to lead this work, and providing them with resources to do so.**

Immediate, COVID-19 specific, recommendations:

Engage churches, mosques, community centers, schools, dollar stores, gas stations, support organizations, and key community members to act as distribution sites and delivery coordinators for masks and cleaning/disinfecting supplies.

Increase support to community organizations and institutions that are already distributing and delivering needed supplies.

Partner with trusted community organizations and institutions to disseminate COVID-related information to community members.

Partner with and promote Black-owned businesses that also distribute COVID-related supplies and information, and that model social distancing, cleaning, and mask-wearing.

Identify the community sites where people are most comfortable going and host testing sites there; hire individuals from the community to help staff these locations.

Hire and train local community members to work as contact tracers, increasing trust in contact tracing services. Local tracers can also (a) conduct contact tracing interviews in-person with individuals uncomfortable with or unable to participate by phone, and (b) provide tools to help people uncomfortable sharing information use "self-serve" contact tracing to educate their contacts about COVID-19 exposure and refer them to contact tracers.

Partner with community organizations and local businesses to create COVID-safe Wi-Fi hot spots to increase access to telehealth and other remote resources.

Partner with Pathways HUBs and community health worker organizations to connect individuals who show up for COVID-19 testing or participate in contact tracing with primary care and community resources.

Immediate recommendations to improve the health of communities:

Cultivate new trusting relationships between
local communities and specific public health
agencies and higher education institutions.

2. **Explicitly address economic injustice and its widespread health and social impacts by directly improving access to resources to support disease prevention, COVID-19 response, and necessities of daily living.**

Immediate, COVID-19 specific, recommendations:

Create new retail opportunities and public distribution sites to facilitate ready access to masks, disinfecting/cleaning supplies, and other essential supplies.

- Place semi-permanent COVID supply storefronts or pop-up shops selling supplies at reasonable cost in neighborhoods that residents can access on foot; this is particularly important in food/shopping deserts.

- Use government/private partnerships to incentivize improved availability of products and services in urban areas.

- Use community organizations to facilitate distribution of free supplies and delivery to homes when necessary.

Create free testing sites where people live and work, ensure that they are easily accessible, and integrate COVID-related education and services at these sites.

- Create new stable testing sites in neighborhoods.

- Use a range of mobile-van and pop-up testing sites to allow for both walk-up and drive-up testing.

- Conduct testing in workplaces, including at employment locations for essential workers.

- Make testing free.

- Provide accurate, culturally-tailored information at testing sites, presented in the languages of each community, to educate individuals who present for testing and others about COVID-19 how to minimize its spread.

- Integrate health and social support navigators into testing sites, to provide those who test positive with income support, other resources to make self-quarantine attainable, cleaning and disinfecting supplies, education about self-quarantine, and assistance in obtaining healthcare services.

Improve healthcare access to ensure that those who test positive can be effectively linked to ongoing care.

- Place free and low-cost health clinics in high-need neighborhoods – through or in partnership with existing FQHCs, public health authorities, and private healthcare systems – to provide COVID testing, primary care, preventive services, and social supports.

- Expand access to telehealth using community-based health centers with low payment requirements; make temporary HIPAA adjustments to ease access through multiple electronic platforms.

- Mandate strong charity care programs across all hospitals and appropriate funds to covers hospital costs of uninsured individuals with COVID-19.

Improve supportive community services by paying family or community members to serve as home health aides, expanding support groups and services for children and elderly community members.

Provide free municipal broadband and long-term public WiFi hot spots in low-income neighborhoods.

Improve and speed access to emergency pay, unemployment, and stimulus payments.

Immediate recommendations to improve the health of communities:

Increase direct financial support to low-income households, as well as in-kind supports such as housing and food assistance.

Recommendations to create a social context for long-term health and wellness:

Institute universal health insurance, including publicly-funded basic insurance coverage for all Americans.

Ensure ongoing access to primary care, mental health care, and substance use treatment.

3. Directly address the impacts of historical, institutional, and everyday racism through policy change, strong statements by public leaders, and anti-racism education and training.

Immediate, COVID-19 specific, recommendations:

Government and private efforts to mitigate COVID-19 should routinely support and promote community-based and Black-owned businesses and organizations.

Public leaders and elected officials should explicitly and publicly refute misinformation, racism, and xenophobia whenever they are articulated or disseminated in public spaces.

Immediate recommendations to improve the health of communities:

To eliminate bias and cultural barriers to healthcare and social services, ongoing implicit bias and cultural competency training sessions should be mandatory for all state employees, police, teachers, healthcare providers, social service providers, and trainees for these positions.

Policy makers and stakeholders should advocate for anti-racism in all policies.

Recommendations to create a social context for long-term health and wellness:

Racial inequities in the criminal justice system should be addressed to reduce mass incarceration and its long-term health and economic effects in communities. [1]

Reparations or direct payments should be instituted to help reverse the limited access to resources that is a key upstream driver of health disparities affecting Black and African American communities.

1 Acker et al., 2018.

4. Improve and enforce employment policies to reduce the spread of COVID-19 in workplaces and protect businesses and workers coping with the impacts of the pandemic.

Immediate, COVID-19 specific, recommendations:

Ensure and enforce that all workplaces are following current state and public health guidelines.

Require large employers to use best practices for minimizing the spread of COVID-19, including providing masks, PPE, and hygiene supplies to employees, and develop an enforcement structure for these requirements.

Incentivize all employers to use these same best practices; highlight compliant employers and penalize non-compliant ones.

Provide financial support to small and minority-owned businesses to help them engage fully with safety requirements and stay in business.

Require that all businesses (including temp agencies) provide leave time to employees who need to isolate or quarantine themselves or a family member, without threat of job loss or benefit loss.

Expand emergency paid sick leave provisions in legislation, to cover employees in businesses of all sizes, make benefits retroactive, and hasten payout of benefits.

Recommendations to create a social context for long-term health and wellness:

Prohibit employers from asking about criminal history on initial job applications, to improve placement in positions offering health insurance and sick time.

5. **Reduce the substantial COVID-19 transmission risks associated with dense living conditions by increasing access to affordable housing, alleviating crowding in congregate situations, and creating new options for isolation and self-quarantine.**

Immediate, COVID-19 specific, recommendations:

Create a pause in rent, utilities, and other major expenses.

Identify and fund temporary housing units to shelter isolating and quarantining individuals and their caregivers away from others. Consider schools, conference centers, hotels, motels, and emergency evacuation locations for this use.

Increase investment in shelters and low-income housing to provide COVID-safe accommodations for homeless and transitional housing populations.

Reduce congregate living in prisons and jails by creating new options to reduce incarceration of non-violent offenders, ramping up release of low-risk non-violent offenders already in prison, providing appropriate supports for post-release re-integration, and ending the use of cash bonds for low-risk, non-violent individuals in jails awaiting trial.

Immediate recommendations to improve the health of communities:

Create more affordable housing by converting existing housing to affordable units, and by funding, subsidizing, and incentivizing new low-income housing development.

6. Improve access to COVID-safe, affordable transportation.

Immediate, COVID-19 specific, recommendations:

Improve public transportation infrastructure by adding routes that go to testing and healthcare sites, increasing the frequency of routes, and reducing cost to riders.

Make public transportation safer by cleaning vehicles more frequently, distributing masks to riders, and adding plexiglass barriers in buses.

7. Increase and improve the dissemination of high-quality, culturally-connected COVID-related education throughout communities.

Immediate, COVID-19 specific, recommendations:

Prioritize frequent clear, credible, and tailored communication about COVID-19 and its impact on the community.

Develop culturally-relevant educational materials that cover a broad range of COVID-related topics, including the severity and threat of COVID-19; the efficacy of protective measures including hand washing, surface cleaning, mask wearing, and social distancing; suggestions for staying safely connected with family and community; when, where, and how to get a COVID-19 test; why contact tracing is important and how it works; when and how to isolate and quarantine; how to use COVID-related protections while at work and when in caregiving roles.

Ensure that educational messaging is culturally-tailored, presented in all the languages each community speaks and in terms appropriate for individuals with low literacy, includes lots of visual aids, and features diverse graphics centered on members of the community.

Disseminate culturally-relevant educational materials through a range of modes, including flyers, pamphlets, yard signs and other community signage, social media, and YouTube videos.

Develop culturally-tailored materials to deliver standardized pre-test counseling, post-test counseling, and contact tracing conversations, to ensure that all patients and contacts receive thorough and consistent information.

Recommendations to create a social context for long-term health and wellness:

Improve school-based health education.

Create a racially equitable education system that serves members of all communities at the highest levels.

Findings and Recommendations for *Needs Assessment* Populations

Latino and Hispanic Communities in Ohio

Background

Terminology

Needs Assessment key populations are identified throughout this document using the terminology preferred by respondents. This section focuses on Latino and Hispanic Americans. Some members of these communities also prefer the terms Latina/o or Latinx, but those terms were not selected by *Needs Assessment* participants.

Latino and Hispanic populations in the U.S. include individuals, families, and communities whose origins or ancestry are from Central America, South America, or the Caribbean. The term 'Latino' refers to anyone with origins from Latin America (which includes Brazil). While 'Latino' is simply the Spanish translation of 'Latin', it is also the shortened form of Latinoamericano (Spanish) and Latino-Americano (Portuguese). The term Hispanic refers to people who identify with a nationality from a predominantly Spanish-speaking country (excludes Brazil). 'Hispanic' originated in the United States (U.S.) in the 1970s when U.S. citizens of Mexican, Puerto Rican, Cuban, and Guatemalan descent advocated to no longer be grouped with Irish and Italian Americans so that their cultural sub-group could receive needed political resources and education (Mora, 2014). Latino and Hispanic populations are diverse based on countries of origin, race, culture, and generation in the U.S. Individuals identified as Latino or Hispanic may come from families who have been in the U.S. for many generations, or they may be immigrants (foreign born), first-generation (parents are foreign born), or second-generation (grandparents are foreign born) Americans.

Population

About 4% of Ohio's population, or approximately 431,000 individuals, identify as Latino or Hispanic (U.S. Census Bureau, 2020b). Latinos and Hispanics reside in urban and rural counties across the state, but are most concentrated in the metropolitan regions surrounding Cleveland, Columbus, Cincinnati, Dayton, and Toledo (see Map 3).

Map 3. Latino and Hispanic Residents in Ohio, By County
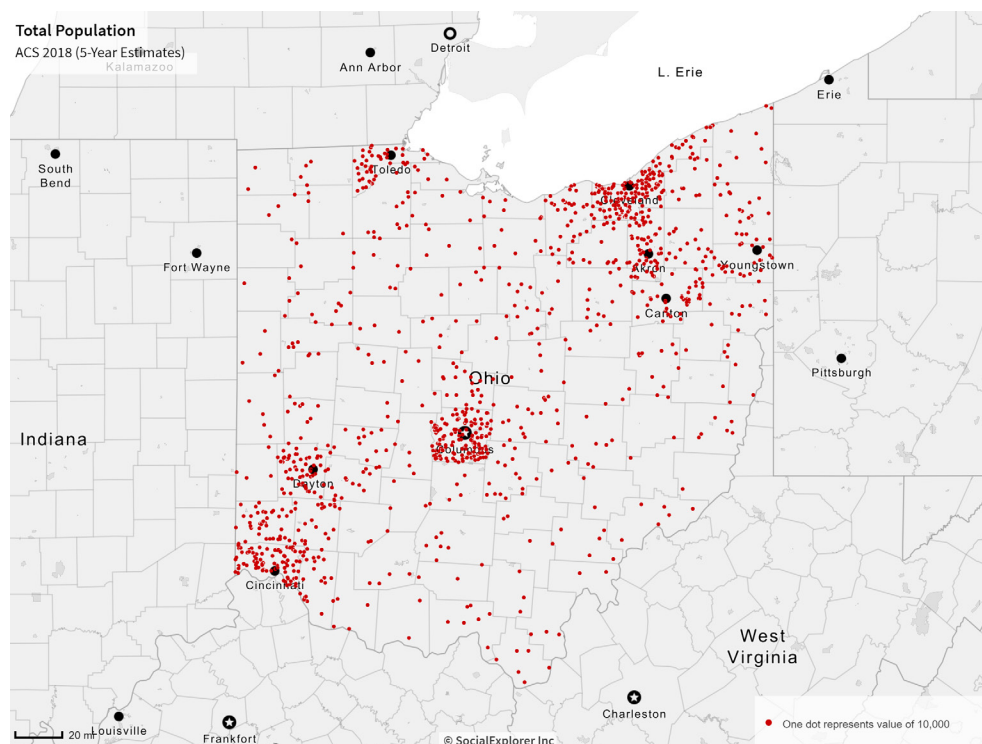
Source: *Map 3*. Latino and Hispanic Residents in Ohio, by County. Adapted from "Social Explorer," by C. M. Bijou, 2020, *Social Explorer*. Retrieved September 2020, from https://www. socialexplorer.com/9b9f74db43/view. 2020 by Social Explorer Inc.

The majority of Latinos/Hispanics in Ohio identify culturally as Mexican (47%) or Puerto Rican (30%), with smaller groups originating from Guatemala (4%) and other countries (19%) (U.S. Census Bureau, 2018a). Just over 20% (93,000) of Latino/Hispanic people in Ohio were born outside of the United States; 95% of these individuals are documented immigrants (Pew Research Center, 2014). The Latino/Hispanic population in Ohio is relatively young, with a median age of 25.8 years old as compared to a median age of 39.5 years among all Ohioans (U.S. Census Bureau, 2018b). Language use is diverse within Ohio's Latino and Hispanic population: half speak only English, while nine out of ten of those born outside the U.S. speak Spanish at home (U.S. Census Bureau, 2018b).

Income and Education

Economic insecurity is a substantial problem for Latinos and Hispanics in Ohio. Twenty-four percent live under the federal poverty line, and the unemployment rate within this population prior to the COVID-19 pandemic was 7.3% (U.S. Census Bureau, 2018b). Latino and Hispanic workers are heavily concentrated in the food industry and labor-intensive occupations, including construction and cleaning. Compared to the median income of $56,000 in the general Ohio population, the Latinos and Hispanics have a lower median income of $44,813. However, income varies within this population by country of origin. For example, median income is $43,000 among self-identified Mexicans but $36,000 among individuals who self-identify as Central Americans. These disparities in income are predominantly driven by length of time living in Ohio, level of assimilation to U.S. culture and language, educational attainment, and occupational skills. Latinos from Central America generally work in semi-skilled jobs and are more often undocumented (Cohen & Chavez, 2013).

Educational attainment among Latinos/Hispanics in Ohio is also limited compared to the general population: 27% percent of Latinos/Hispanics have attained post-secondary degrees compared to 38% of Ohio's general population (U.S. Census Bureau, 2018b). Similarly, 11% of Latinos/Hispanics have less than a 9th grade education compared to only 3% of the general Ohio population (U.S. Census Bureau, 2018b).

History

Latino and Hispanic cultural groups have a long history in Ohio. Early migration was driven predominantly by Puerto Ricans who migrated to Lorain, Ohio in 1947 in response to a concerted recruiting campaign by the National Tube Company (Schouten, 2020). Between 1960 and 2006, distinct Latino/Hispanic communities formed in several major Ohio cities as they found employment in factories, on farms, or by successfully opening restaurants and specialty stores (Van Tassel & Grabowski, 1996). Self-identified Mexicans began the second major wave of Latino/Hispanic immigration to Ohio in 2000. Since then, the Mexican community has more than doubled, with nearly 195,000 people having an ancestral link to Mexico and more than 10,000 people arriving from Mexico in the last decade (U.S.Census Bureau, 2018b). These recent population shifts have also been driven by employment opportunities in the agriculture, food, and service industries (Johnson-Webb, 2003; Kandel & Parrado, 2005).

Despite consistent, successful immigration to Ohio, members of the Latino/Hispanic population face discrimination and the pressure to assimilate to American culture (Cohen & Chavez, 2015). Cultural discrimination destabilizes the economic, education, and health status of Latino/Hispanic populations. Accordingly, community members have identified priority needs for eliminating socioeconomic and health disparities. These include access to monetary security, transportation, and resolution of immigration status – a particularly important factor as undocumented status often results in lack of health insurance (Kouyoumdjian et al., 2006). These challenges are somewhat alleviated through strong community connections that allow Latino/Hispanic groups to maintain some traditional values and customs and provide resources in times of need (Cohen & Chavez, 2013; Mora, 2014).

Health Profile

Latinos/Hispanics in Ohio have a higher life expectancy than that of the general population (81 years versus 78 years) (Ohio Department of Health, 2016). Leading causes of death are similar among Latinos and Hispanics as within the general U.S. population (see Table 5). Death rates due to homicide, diabetes, and liver disease, however, are substantially higher for Latinos and Hispanics (Heron, 2019).

Table 5. Leading Causes of Death of U.S. Latinos/Hispanics vs. Entire U.S. Population

Causes of Death (Hispanics)	Rates (per 100,000)	Causes of Death (General Population)	Rates (per 100,000)
Heart Disease	128.7	Heart Disease	171.5
Cancer	122.2	Cancer	166.3
Unintentional Injury	28.0	Chronic Lower Respiratory Disease	42.0
Stroke	31.7	Unintentional Injuries	39.3
Diabetes	28.3	Stroke	37.0
Chronic Liver Disease	14.8	Alzheimer's Disease	24.0

Source : *Table 5*. Vital Signs: Leading Causes of Death, Prevalence of Diseases and Risk Factors, and Use of Health Services Among Hispanics in the United States — 2009–2013. Reprinted from "Morbidity and Mortality Weekly Report (MMWR)," by K. Medero, 2020, *Centers for Disease Control and Prevention (CDC)*. Retrieved July 2020, from https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6417a5.htm. 2020 by Centers for Disease Control and Prevention (CDC).

Historically higher rates of liver disease and diabetes within U.S. Latino and Hispanic communities are likely driven by food and cultural traditions (Isasi et al., 2015). Many Latino/Hispanic cultures emphasize the importance of large celebrations that include alcohol consumption and eating calorie-dense foods (e.g.: pork, fried plantains, traditional pastries) (Dominguez et al., 2015). These cultural traditions intersect with other major U.S. health risks – including lack of access to preventive health care, healthy foods, and accessible parks or recreation areas (Myers et al., 2016)) – to increase risk for obesity and associated co-morbidities (e.g.: hypertension and diabetes). For foreign-born Latinos, obesity risk rises with the number of years living in the U.S. (Isasi et al., 2015).

Latino and Hispanic populations in Ohio have substantially less access to healthcare than the general population. According to the U.S. Census Bureau (2019a) 16% of Latino/Hispanic Ohioans under the age of 65 have no health insurance, compared to 7% of non-Hispanic Whites and 9% of non-Hispanic Black Ohioans. Within Ohio Latino/Hispanic communities, 10% of those born in the U.S. and 46% of those born elsewhere are uninsured (Pew Research Center, 2014). U.S. Latinos and Hispanics are less likely to be vaccinated for influenza than the general U.S. population (Williams et al., 2017).

Challenges Specific to COVID-19

Low levels of healthcare access and higher levels of diabetes and obesity make Latinos and Hispanics more vulnerable to COVID-19 than the general population (Jordan & Oppel, 2020). In addition, the pandemic has negatively affected financial security. As of April 2020, approximately half of Latino/Hispanic adults (vs. one-third among all U.S. adults) reported having already lost a job, taken a pay cut, or both due to COVID-19 (Krogstad et al., 2020). This is especially problematic for undocumented Latinos/Hispanics, who are ineligible to receive federal financial assistance (Singh & Koran, 2020).

Culture and Healthcare

Latino and Hispanic cultures can be described as collectivistic and family oriented (Varner & Beamer, 2011). Latinos and Hispanics households are often multi-generational, and families are generally larger than those of other U.S populations (Lofquist, 2013). Many Latino and Hispanic families utilize home remedies or complementary and alternative medicine (CAM) before seeking medical care from an allopathic physician (Ortiz et al., 2007). CAM practices are defined as "medical interventions not taught widely at U.S. medical schools or generally available at U.S. hospitals" (Eisenberg et al., 1993, p. 246), and may include herbal remedies, prayer/ affirmations, and energy therapies. The use of CAM among Latino/Hispanic communities is rooted in the beliefs and traditional healing practices of Latin America's indigenous people, African slaves, and Catholic and Hippocratic influences (Ortiz et al., 2007). Supportive family network structures have facilitated sharing these diverse traditions across generations, although immigrants and first-generation Latinos/Hispanics are more likely to use CAM practices regularly (Ortiz et al., 2007). CAM practices may compliment the use of other health resources or compensate where they are missing. Religious counseling and prayer, for instance, may be a first line of mental health support, or may arise from lack of access to any other forms of mental health care or lack of health insurance. Whether used as the primary, secondary, or sole source of healthcare, CAM practices are important to many Latinos/Hispanics, and may be combined with allopathic medicine to provide comprehensive and culturally relevant medical care in this population.

Findings from Analysis of *Needs Assessment* Data from Respondents Representing Latino and Hispanic Ohioans

Description of Respondents: 31 respondents representing Latino and Hispanic communities in Ohio completed the *Needs Assessment* survey. This is not a general sample of Latinos/as and Hispanics in Ohio, but a purposeful sample of individuals who represent organizations, agencies, and community groups that work with these populations. More than two thirds of respondents identified as members of one of these communities themselves. 11 respondents work with these communities through non-profit organizations; others are connected to these communities through (in order of frequency) public health/government agencies, medical facilities, community health centers, community organizations, and religious organizations. Our respondents generally serve high-need groups, so the findings below apply most clearly to that subset of Latinos and Hispanics in Ohio.

I. Strengths of the Community

Respondents identified a broad range of community strengths that are resources for Ohio's COVID-19 response within Latino and Hispanic communities. These included:

- Community resilience

- Community embraces and understands many cultures

- Community values, norms, and beliefs:

  - Belief in helping each other
  - Values of caring, generosity
  - Mission focused
  - Survivor mentality
  - Based in family
  - Hope

- Strong relationships within communities

- Existence of many strong and well-connected community organizations

- Existence of organizations that provide assistance to migrant workers

- Importance of churches

- Existence of Federally Qualified Health Centers (FQHCs) throughout the state

- Willingness of community members to take COVID-19 tests if available

II. Key Barriers to Using Public Health Strategies to Minimize the Impact of COVID-19

These categories represent the most common barriers to Latino and Hispanic communities using public health strategies to minimize the impact of COVID-19. These key barriers were mentioned by multiple respondents (ranging from 2 to more than 10, usually at least 5), and they affect communities' ability to use multiple public health strategies. A summary of each barrier is followed by bullets which detail specific instances and problems commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

Topic A: Hygiene

Topic B: Social Distancing

Topic C: Mask-Wearing and Personal Protective Equipment (PPE)

Topic D: COVID-19 Testing

Topic E: Contract Tracing

Topic F: Isolation

Topic G: Self-Quarantining

Topic H: Healthcare Access

1. Work-related challenges

The need to work and lack of safe practices at work constitute a significant barrier that affects the ability of community members to practice protective hygiene, social distancing, COVID-19 testing, contact tracing, and self-quarantining (Topics ABCEFG).

- Essential workers are often in close contact with other people, may not have access to proper cleaning and self-protective supplies

- Employers are not providing language appropriate information and PPE

- Essential work is often not conducive to social distancing

- The necessity of earning an income prevents individuals from staying home

- The necessity of earning an income prevents individuals from getting tested and working with a contact tracer

- Individuals are unable to take time off work, lack sick leave

- Migrant workers live in camps where there are multiple people living in close quarters, sharing the same bathroom if not the same bed

"Many [undocumented] immigrants may seek out or are working for jobs where businesses are not following the social distancing for [their] employees."

"[It's hard to understand] what to do when you're sick on the job about any benefits, particularly pay."

2. Housing challenges

Housing conditions within Latino and Hispanic communities affect members' ability to use protective hygiene practices and social distancing, and to practice isolation and self-quarantining when needed (Topics ABFG).

- Dense housing, small housing units

- Many individuals living together

- Multi-family and multi-generational households

- Crowded common areas

- Sharing of beds

- No place to isolate or self-quarantine should that be necessary

- Migrant agricultural workers live in camps, many share one bathroom

"People [live] in close quarters – crowded apartment buildings with equally crowded common areas."

"We have an apartment complex that has been identified as a COVID-19 hot spot. Many multigenerational families live in congested apartments with no other shelter options available. Many individuals in this building also work for a meat packing plant nearby with no ability to physically distance themselves from their co-workers."

"Others could possibly stay at a motel… but not [in] the Hispanic community and definitely not in this area, as they are below the poverty line and [this is] not something they could afford. If there is a basement, a living room, then people could spread out somewhat. But most Hispanics live together as a family, so it is difficult to practice social distancing in the home."

"Migrant agricultural workers who live in migrant labor camps generally have only one bathroom for the whole camp (of 15 or more workers)."

3. Language barriers

Several types of language barriers limit the ability of Latino and Hispanic community members to use public health strategies to minimize the impact of COVID-19. Strategies affected by language-related barriers include use of protective hygiene, social distancing, COVID-19 testing, contact tracing, self-quarantining, and healthcare (Topics ABDEGH).

- Difficulty understanding educational messages

- Lack of information in Spanish

- Difficulty securing translation services in healthcare settings

    - Lack of prompt translation services even when/where they are available

- Signs providing instructions about social distancing (such as in grocery stores) printed only in English

- Six feet (6') not always understandable as a unit of distance to non-English speakers

- Lack of Spanish language testing sites

- Possibility that contact tracers may not speak Spanish or the indigenous languages (e.g.: Mayan) that a particular sub-population uses

- Possibility that contact tracers may not always be culturally competent

- Lack of Spanish language availability in mental and physical health care, substance abuse treatment

"Even the CDC website, and all information relating to COVID, has a 3-week lag in translating their information into Spanish."

"[Signs on] walkways in grocery stores – 'enter here, walk this way, 6 feet apart, do not enter here' – are all in English and cannot be read by non-English speaking individuals."

"Some…health care professionals are still not getting interpreters on time to the patients. That worst part is the not all interpreters are great."

"There are few bilingual mental health providers in all of Ohio. Access to mental health is a serious barrier."

4. Financial constraints and poverty

Low incomes and lack of financial resources limit the extent to which Latino and Hispanic communities are able to practice protective hygiene and social distancing, use PPE, use COVID-19 testing, isolate when necessary, and access healthcare (Topics ABCDFH).

- Products needed to use protective hygiene are often unaffordable

- PPE and masks are often unaffordable

- Working conditions in essential, low-paid jobs prohibit social distancing

- Individuals lack extra funds to isolate somewhere other than their usual home

- Individuals lack health insurance and cannot afford it

- Individuals lack resources to pay for healthcare

- Undocumented immigrants do not qualify for Medicaid or Medicare

- Unemployment takes too long to come through

- Individuals may have no savings to rely on

"Many have said it is hard to get face masks. They also have many people in the family so it can get costly if they don't have cloth masks. Many do not have laundry facilities in their home so would have to wash them elsewhere."

"Lack of insurance and [the] means to pay for health care."

"Many farm workers will not consider seeking medical care because of the cost, language barriers, and lack of transportation. Seeking medical care could be [seen] as last resort."

"Unemployment is taking so long making surviving right now nearly impossible."

"Typically there is no cushion of savings to rely on."

5. Lack of access

Lack of access to resources limits the ability of community members to practice protective hygiene, use PPE and COVID-19 testing, and access healthcare (Topics ACDH).

- Lack of cleaning and hygiene supplies

- Lack of access to PPE

  - Lack of masks and materials to make masks

- Lack of access to testing

  - Limited local testing, few testing sites

  - Large hospital systems will only test their patients

  - Lack of testing materials

  - Inability to get tested without seeing a healthcare provider first

- Lack of access to healthcare in general

"Sometimes access to hygiene products is a choice when having to choose to feed the family or buy the cleaning products."

"Migrant agricultural workers in our community…do not have the ability to drive themselves or order online ([there are] no computers at migrant camps) to obtain PPE."

"Large hospital systems [are] making tests available only to their [own] patients."

6. Cultural norms and practices

Cultural norms and practices important to Latino and Hispanic communities also constitute barriers to protective strategies including hygiene, social distancing, PPE, contact tracing, isolation, self-quarantining, and healthcare (Topics ABCEFGH).

- Cultural norms place significant emphasis on:

  - Expressing physical affection – handshakes, hugging, etc.

  - Socializing and gatherings

  - Extended family interaction and co-habitation

  - Attending religious services

- Social distancing, lack of touch not accepted

- Fears of being mocked for wearing PPE, or scaring children by wearing a mask

- Not visiting family can create tensions, wearing a mask can create a sense of barrier

- Feeling sorry for individuals who need to be isolated

- Values of communalism, wanting to help the family

- Fatalistic beliefs about life and death

- Relying on family rather than outside sources of assistance

- Stigma around mental health treatment

- Fear of stigma, ostracization if suspected or diagnosed with COVID-19

- Potential mental health challenges as a result of conflict between social distancing and cultural values

"Celebrations in Latino families usually bring large group gatherings. It would be considered rude in this culture to invite only 10 persons to a family celebration."

"... In my experience, close knit families [are] used to demonstrating their affection through hugs and touch, [and] may find it difficult to adapt to distancing and other interventions to stop the virus spread."

"My friend said that her mother moved and that her brother and kids were over [at] the house with no masks. She got angry with the family and told them to wear masks around her mother. She even gave masks to her mother to wear, but was concerned her mother did not have the courage to ask her son and family to wear their masks. This is a significant cultural issue."

"Fear of being socially outcast due to having the virus or [being] exposed to the virus is a very important factor that must be considered."

"Lack of interaction is creating an increase in depression...and increasing mental illness."

This barrier limits community members' ability to practice protective hygiene, isolate when necessary, and to utilize PPE, testing, and healthcare (Topics ABCDFH).

- Members of this community lack information about:

  - The risks of COVID-19 transmission

  - The potential to have COVID-19 while asymptomatic

  - Recommended hygiene practices and products

  - Social distancing

  - Importance of masks

  - When to get tested

  - When and why to isolate or self-quarantine

  - Where to get healthcare

  - How the healthcare system works

  - How to talk to family members, including children, living in multi-generational families, about COVID-19

- Lack of information results from:

  - Low literacy

  - Lack of English skills

- Misinformation about hygiene practices

- Skepticism about the effectiveness of masks

"It has been difficult for this community to access testing given the confusing process when it comes to [getting] tested."

"[Use] simple language to explain concepts."

8. Transportation challenges

Lack of public transportation impedes social distancing, COVID-19 testing, and access to healthcare (Topics BDH).

- Common to carpool to work and grocery stores

- Public transportation used frequently

- Individuals cannot access testing or healthcare if these services are not local and they don't have transportation

"Many commute together in one truck."

"People are limited [with respect] to transportation and not being able to reach the place will...hinder their desire to get the test done."

9. Mistrust of government and healthcare systems

This barrier impedes use of COVID-19 protective advice in general, use of protective hygiene, testing, contact tracing, and healthcare (Topics ADEH).

- Mistrust of the government is a barrier to understanding and heeding protective advice

- Cultural mindset is that you go to the doctor or get testing when you are sick, not as a preventative measure

- Skepticism about the motives of contact tracers

- Immigration status deters some individuals from working with contact tracers

  - Fear of ICE involvement, immigration raids, imprisonment, deportation

- Some individuals who are eligible for Medicaid will not apply because they don't want to be on a list

- Hesitant to engage with health departments

- Personal and community history of negative interactions with healthcare providers

- Waiting until very ill to get tested

- History of racism

- History of unethical medical testing

- Belief that Latino and Hispanic communities will only get tested after the dominant population

- Fear of being shamed, e.g.: for having only one bathroom

- Fear of job loss

III. Key Ideas (Solutions) to Address Barriers and Minimize the Impact of COVID-19

These categories represent the most common solutions suggested to help Latino and Hispanic communities use public health strategies to minimize the impact of COVID-19. These key ideas were mentioned by multiple respondents (ranging from 2 to more than 10, usually at least 5) and would facilitate communities' ability to use multiple public health strategies. A summary of each proposed solution is followed by bullets that list details and specifics commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

1. Partner with community resources and connect with community values

This approach would facilitate the use of protective hygiene, social distancing, PPE, and contact tracing by Latino and Hispanic community members (Topics ABCE).

- Earn the trust of community leaders and members

- Involve faith leaders in education, outreach, and support related to COVID-19

- Use faith and spirituality to reduce isolation

- Use trusted agencies and organizations for outreach

- Use churches, schools, parks as sites to distribute PPE and other supplies

- Distribute educational information through churches and community events, and through centers-of-community like grocery stores and religious organizations

- Distribute information through local health departments and at migrant camps

- Use community role models and celebrities to model protective practices

- Use community educators and community health workers to disseminate information

- Conduct COVID-19 testing at trusted community sites

- Evoke values of protecting family members to build support for social distancing

- Hire Spanish speaking contact tracers from the community

- Relay information so that family-members can talk to other family members, especially within multi-generational households, about COVID-19 (i.e., teach children to wear masks)

"[Communities] have many ways that they communicate, find out how they are communicating and use that way. Not all communities are doing the same thing…Work with local agencies that already have contact or people who are close to the communities you want to reach and see what…issues are currently happening."

"Distribute Spanish language materials about hygiene practices at Latino-owned businesses, such as grocery stores, restaurants, agencies."

"Utilize culturally competent workers, ideally members of the community who can go to [people's] homes."

"Latino families must be able to trust the person who is asking the questions about tracing. Therefore it's important that those tracers are Latino, bilingual, and culturally competent."

2. Provide multilingual and community-tailored information and services

This would improve the ability to use several recommended measures to minimize the impact of COVID-19 – including protective hygiene, social distancing, use of PPE, contact tracing, isolation and self-quarantining when necessary, and healthcare – by Latino and Hispanic community members (Topics ABCEFGH).

- Information should be provided in Spanish (preferably in multiple dialects), in indigenous languages, and in simple/clear language

- Information should be provided about:

  - Protective hygiene
  - Social distancing, risks of not doing so
  - How social distancing, masks don't indicate lack of respect
  - Proper use of facemasks
  - COVID-19 testing
  - Guidelines for returning to work
  - What contact tracing is and when/where/ why it happens
  - How to isolate if necessary

- Modes of delivery for multi-language and tailored content include:

  - Radio broadcasts
  - Video content, e.g.: short how-to videos
  - TV channels
  - Posters and signs visible at key community locations (e.g.: laundromats)
  - Social media content
  - Mobile units
  - Cell phones

- Spanish speaking contact tracers should be added

- Testing centers must have bilingual staff

- Hire bilingual and culturally competent staff to create and disseminate information

- Hire bilingual and culturally competent staff (and/or translators) at primary care and substance abuse clinics

> *"Bilingual staff will be needed to provide the service."*

> *"Provide Spanish language PSAs [public service announcements] on radio for the Latino community."*

> *"Translation services [should be provided when visiting] medical, psychiatric, and specialty doctors."*

3. Provide resources directly and improve access

Direct provision of supplies would facilitate the use of protective hygiene, PPE, COVID-19 testing, and healthcare (Topics ACDH).

- Provide free PPE

- Collect donations of PPE at local churches, community organizations, and businesses

- Make PPE more affordable

- Stock PPE in easily accessible locations

- Have employers and migrant worker camps provide PPE

- Provide starter kits for cleaning and personal protection

- Direct individuals to where necessary supplies can be purchased

- Create testing sites at migrant health centers

- Provide testing through mobile units or at-home tests

- Set up temporary testing sites at churches and in Latino/a neighborhoods

- Create a list of hospitals and clinics that provide free and accessible services

- Create mobile healthcare units with bilingual providers

- Provide financial assistance for those who need to leave work to self-quarantine, to support purchase of food and other essentials

- Create meal programs that use masks and enforce social distancing

"Pick up sites [can be] organized at local churches, laundromats and other places where people have to go to conduct business."

"Cloth masks are limited to those who have the income to purchase [them] or purchase the materials to construct masks. Mask donation thru voter registration drives and food drives are an opportunity to connect the community to resources they need and provide them with a tool for mitigation. Most homes do not have thermometers available to monitor their temperature."

"Provide tests to Migrant Health Centers who go into the community [to provide] health assistance through mobile clinics."

4. Create housing options

Housing options would facilitate use of protective hygiene and social distancing, and make isolation and self-quarantining possible when necessary (Topics ABFG).

- Provide temporary housing to allow for social distancing, isolation, self-quarantining

- Offer financial assistance to allow use of motels or rental houses

- Offer financial assistance to get cleaning and hygiene supplies into households

- Build larger houses with multiple bathrooms and more space

- Create alternative housing for quarantining when necessary:

    - Hotels and motels, perhaps through vouchers

    - RVs

    - Separate housing units or camps for infected workers

"In Korea they set up shelter[s] where [an infected or exposed] person goes to quarantine so they don't go home. This may be a good idea."

"Build Latino families bigger houses with more than one bathroom."

"[Provide] hotel vouchers from charities allowing sick people to stay in a hotel room so that they can self isolate."

Other Ideas

These additional ideas represent separate potential solutions reported by multiple respondents, but not as frequently as the 4 key ideas described above.

- Ensure that ICE is disconnected from COVID-19 interventions such as testing and contact tracing

- Improve public policies

    - Hold businesses accountable when they take advantage of Latino/a people

    - Mandate that businesses provide Latino/a employees with Spanish-language information

    - Suspend deportations

    - Reduce incarceration

IV. Trusted Community Resources and Linkages

Respondents identified a long list of varied and trusted community resources: healthcare organizations (including medical centers, clinics, and hospitals), churches, TV stations, non-profit organizations, migrant organizations, community coalitions, community centers, and charities. They also listed a range of pharmacists, pharmacies, federally-qualified health centers (FQHCs), and community health centers that are well-connected resources within these communities.

Final Recommendations to Minimize the Impact of COVID-19 on Latino and Hispanic Populations in Ohio

These recommendations reflect the data provided by respondents representing Latino and Hispanic communities as well as additional context and insight provided by our panel of expert researchers, public leaders, and practitioners with expertise focused on Latino and Hispanic communities.

1. **Center the COVID-19 response in the organizations and cultures of local communities, implementing public health activity through partnerships with trusted community groups, empowering local organizations to lead this work, and providing them with resources to do so.**

Immediate, COVID-19 specific, recommendations:

Use trusted agencies and community organizations to develop and lead all aspects of COVID-19 response, including creating educational materials, disseminating information, distributing PPE, conducting testing and contact tracing, and facilitating alternative housing for isolation and self-quarantine.

Distribute educational information and center other aspects of the COVID response in churches and community events, and centers-of-community like grocery stores, religious organizations, schools, free clinics, migrant camps, health departments, and community parks.

Partner with churches and focus on faith communities and families as central sites for COVID-19 response.

Use community educators and community health workers to disseminate information.

Train and employ community members as multilingual community health workers, health navigators, and contact tracers. Offer the training and the employment through trusted community organizations.

Involve community leaders, role models and celebrities, including priests, in modeling protective practices.

Provide training for trusted family leaders members to relay information to other household and community members.

Evoke the values of protecting family members to build support for social distancing, teach hygiene practices, and encourage the proper wearing of masks within families.

Employ very trusted members from/serving the community in all aspects of COVID-19 response; hiring trusted, Spanish-speaking contact tracers is particularly important.

Immediate recommendations to improve the health of communities:

Use faith and spirituality to reduce isolation.

Recommendations to create a social context for long-term health and wellness:

Allocate emergency funds to local Latino and Hispanic organizations, to be available to community members in future pandemics or disasters.

2. Explicitly address economic injustice and its widespread health and social impacts by directly improving access to resources to support disease prevention, COVID-19 response, and necessities of daily living.

Immediate, COVID-19 specific, recommendations:

Provide starter kits including cleaning supplies, masks, personal protection, and easy-to-follow information about proper use of these supplies in English and Spanish; distribute kits to make homemade masks.

Provide free PPE in local community sites, including churches and Hispanic grocery stores.

Make PPE more affordable at retail sites, ensure that PPE is stocked and available in easily accessible locations.

Collect donations of PPE at local churches, community organizations, and businesses.

Direct individuals to where necessary supplies can be purchased.

Create testing sites at migrant health centers; set up temporary testing sites at churches and convenient locations within Latino/a neighborhoods; create mobile units and at-home tests for those who cannot access other sites.

Remove the requirement for a referral from a primary care provider in order to be tested.

Create a list of hospitals and clinics that provide free and accessible services.

Create mobile healthcare units with bilingual providers.

Provide financial assistance for those who must leave work to self-quarantine, and to support the purchase of food and other essentials.

Create meal programs that use masks and enforce social distancing.

3. **Directly address the impacts of historical, institutional, and everyday racism through policy change and ongoing training; create strong separation between health-related institutions and immigration authorities.**

Immediate, COVID-19 specific, recommendations:

Put processes in place to ensure that personal information gathered through testing, contact tracing, or any resource distribution is not transferred to outside government entities, including U.S. Immigration & Customs Enforcement (ICE)/U.S. Citizen & Immigration Services (USCIS)/immigration courts.

Ensure that ICE is disconnected from COVID-19 interventions such as testing and contact tracing.

Create legal protections, similar to HIPAA requirements, that would make it illegal for contact tracers to share information about people that can lead to identification by outside government entities.

Offer COVID-19 interventions at trusted community sites instead of at governmental sites.

Train healthcare professionals, including all contact tracers, to be culturally responsive, including honoring familism/collectivism, so guidance can be relevant without shaming or stigmatization.

Recommendations to create a social context for long-term health and wellness:

Ensure ongoing access to primary care, mental health care, and substance use treatment.

Build trust in government and medical services by demonstrating transparency in early intervention stages, and assuring identifying information stays confidential.

Suspend deportations.

Reduce incarceration to reduce its long-term health and economic effects in communities.

4. **Improve and enforce employment policies to reduce the spread of COVID-19 in workplaces and protect businesses and workers coping with the impacts of the pandemic.**

Immediate, COVID-19 specific, recommendations:

Prohibit employers from terminating employees who take extended leaves of absence to provide COVID-related care for family members.

Require that employees exhibiting COVID symptoms take sick leave without loss of employment or benefits.

Mandate that employers of essential employees and migrant workers consistently provide PPE to their employees.

Recommendations to create a social context for long-term health and wellness:

Hold businesses accountable when they take advantage of Latino/a people.

Mandate that businesses provide Latino/a employees with Spanish-language information.

5. **Reduce the substantial COVID-19 transmission risks associated with dense living conditions by increasing access to affordable housing, alleviating crowding in congregate situations, and creating new options for isolation and self-quarantine.**

Immediate, COVID-19 specific, recommendations:

Create and provide access to locally situated temporary housing for isolation or self-quarantine, using hotels and motels, RVs, separate housing units or camps for migrant workers.

Establish a voucher program or offer financial assistance to stay in hotels, motels, or rental houses for isolation or self-quarantining.

Offer financial assistance to get cleaning and hygiene supplies into households.

Recommendations to create a social context for long-term health and wellness:

Build larger houses with multiple bathrooms and more space.

Mandate and enforce more humane living conditions for migrant workers.

6. Coordinate COVID-safe transportation to allow for social distance while commuting to/from work, and for those otherwise unable to procure basic or COVID-related supplies, get to a testing site, or access healthcare.

7. Increase and improve the dissemination of high-quality, culturally connected, COVID-related education throughout communities.

Immediate, COVID-19 specific, recommendations:

Create varied, culturally appropriate educational materials.

Instead of directly translating COVID-19 materials using bullet points of information, use a story-telling approach grounded in the culture of the community.

Develop culturally-relevant educational materials that cover a broad range of COVID-related topics, including: general awareness of COVID-19; how to use hand washing, surface cleaning, mask wearing, and social distancing for protection; risks of not using these protective measures, proper use of face masks; the idea that social distancing and masks do not indicate lack of respect; when, where, and how to get a COVID-19 test; how testing works and whether it hurts; why contact tracing is important and when/where/how it works; when and how to isolate and quarantine; guidelines for returning to work.

Disseminate multi-language, tailored educational content through a range of modes, including webinars and video events, social media channels, posters and signs at key community locations (e.g.: laundromats), video content (e.g.: short how-to videos), TV, radio, mobile educational units, and cell phone contact.

Disseminate information on all topics in the form of video testimonials from community members.

Create a Spanish-language video campaign about COVID-19, using a familial and culturally relevant lens to tackle barriers and misinformation.

Use storytelling and visual demonstrations to show that social distancing, quarantine, isolation, and mask wearing do not have to exclude or negate cultural values and practices.

Directly communicate a disaffiliation with immigration authorities in any messaging around testing and contact tracing.

8. Provide multilingual services and hire multilingual workers to resolve language barriers.

Immediate, COVID-19 specific, recommendations:

Provide information about all COVID-related topics in Spanish (preferably in multiple dialects), in indigenous languages, and in simple language.

Provide prompt translation and interpretation services for all COVID-19 services.

Hire bilingual and culturally competent staff to create and disseminate information, at testing and healthcare facilities, and as contact tracers.

Recommendations to create a social context for long-term health and wellness:

Identify languages that are most needed to support vulnerable patient populations in all healthcare settings.

Hire bilingual and culturally competent staff (and/or translators) across multiple healthcare settings, including at primary care and substance abuse clinics.

Create language stipends or bonuses to augment the strength of multicultural teams in a wide range of healthcare settings.

Findings and Recommendations for *Needs Assessment* Populations

Asian and Asian American Communities in Ohio

Background

Terminology

Needs Assessment key populations are identified throughout this document using the terminology preferred by respondents. This section focuses on those who identified themselves as representing Asian and Asian American groups in Ohio.

Asians and Asian Americans may be of East Asian, South Asian, or Southeast Asian descent. These terms are inclusive of all immigration statuses and generations, of mixed-race individuals and transracial adoptees. Some data categorizations include Native Hawaiians and Pacific Islanders.

Population

There are over 22 million Asians and Asian Americans in the United States (Budiman et al., 2019). Asians and Asian Americans constitute the fastest growing racial demographic group in the country and encompass myriad ethnic groups. As of 2015, 85% of Asians and Asian Americans identified ethnically Chinese, Indian, Filipino, Vietnamese, Korean, or Japanese (Budiman et al., 2019). Among Asian and Asian American communities, there is vast diversity of culture, language and English fluency, lifestyle, socioeconomic status, income and wealth levels, educational attainment, and experiences.

Approximately 2.7%, or 326,135, of Ohioans are Asian or Asian American (APIAVote, 2020; U.S. Census Bureau, 2020a). Ohio's Asian and Asian American population grew by 97% between 2000 and 2020 (APIAVote, 2020). Within Ohio, the two largest groups of Asians/ Asian Americans identify as Indian (33%) and Chinese (23%), followed by Filipinos,

Koreans, Vietnamese, and Japanese (see Figure 4) (APIAVote, 2020). Refugees from Laos, Cambodia, Myanmar, and Bhutan have also resettled in Ohio (Ohio Asian American Health Coalition, 2016). In all, there are 17 officially recognized Asian/Asian American ethnic groups in Ohio, which originate from Bangladesh, Bhutan, Nepal, Cambodia, China, India, Indonesia, Japan, Korea, Laos, Malaysia, Myanmar, Pakistan, the Philippines, Singapore, Thailand, and Vietnam (A. Sucaldito & C. Munoz, personal communication, June 26, 2020).
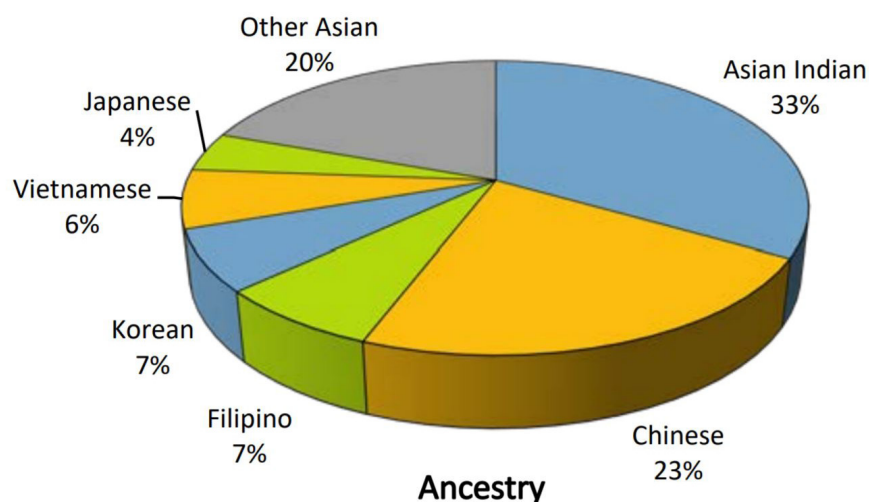
The largest concentrations of Asians and Asian Americans in Ohio reside in the metropolitan areas of Columbus, Cleveland, and Cincinnati (see Map 4). The proportion of Asians and Asian Americans in Ohio's counties range from less than 1% in most rural counties to approximately 10% in the most urban counties (Social Explorer, 2020b; APIAVote, 2020).

Map 4. Percent Asian and Asian American Residents in Ohio, By County
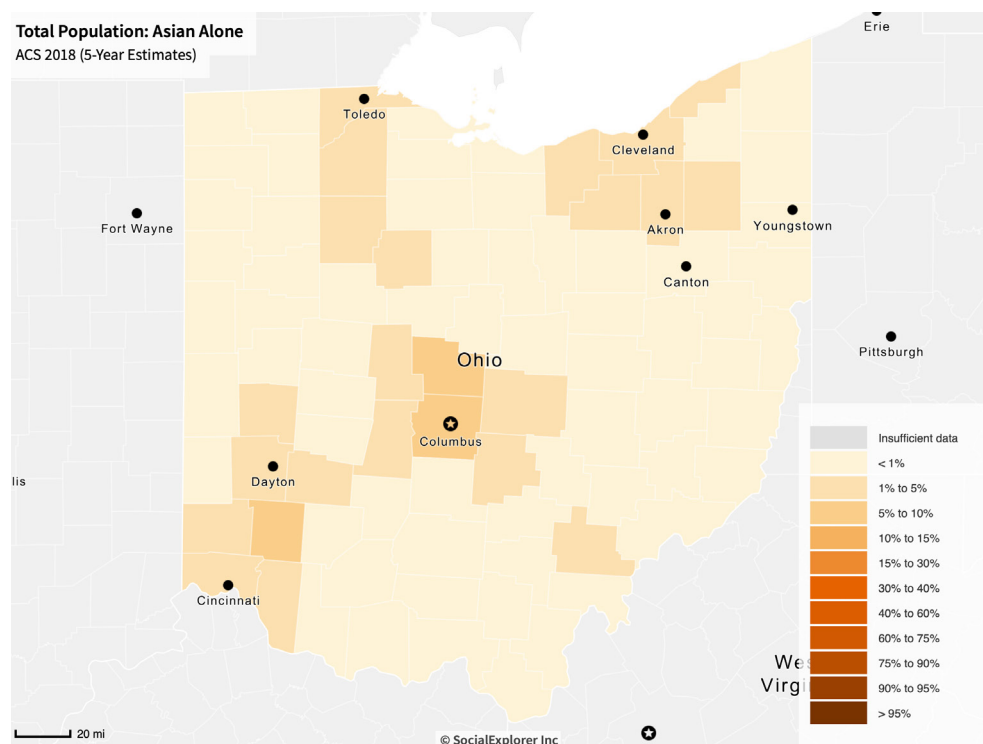
Source: *Map 4.* Percent Asian and Asian American Residents in Ohio, By County. Adapted from "Social Explorer," by C. M. Bijou, 2020, *Social Explorer.* Retrieved September 2020, from https://www.socialexplorer.com/0dbe946f00/view. 2020 by Social Explorer Inc.

Asians/Asian Americans are among the U.S. residents most likely to be undercounted and are least likely to complete the Census. Reasons for this include reluctance to share information, lack of experience with the Census due to recent immigration, lack of education and outreach about the purpose and importance of the Census, limited English proficiency, difficulty identifying with racial/ethnic Census categories, and time perceived to complete the form (Asian American Center for Advancing Justice,2015; Brown, 2020).

Early population-level statistics on Asian American ethnic groups are difficult to determine, as the U.S. Census only assessed Asian ethnicity with a single category, "Chinese", until 1910 when the category "Other" was added. From 1920 to 1940, Asian Indians were regarded as "Hindus." In the 2000 Census, six Asian groups and "Other Asian" became options to describe Asian ethnicity (Brown, 2020).

Nearly two-thirds (60.15%) of Ohio's Asians/Asian Americans were born outside of the U.S., as compared to only 4.5% of Ohioans in general (Ohio Development Services Agency, 2019; U.S. Census Bureau, 2020b). The median age of Asian/Asian American Ohioans is 33.9 years compared to 39.5 years for all Ohioans (Ohio Development Services Agency, 2019). More than three quarters of Asian/Asian American Ohioans (76%) speak a language other than English at home. Of those, over 31% speak English less than "very well" (APIAVote, 2020). In the general Ohio population, only 7% speak a language other than English (U.S. Census Bureau, 2020b).

Income and Education

Between 2007 and 2010, the number of unemployed Asians/Asian Americans grew by 350% in Ohio (Asian American Center for Advancing Justice, 2015). Fewer than half (43.85%) of all Asians/ Asian Americans in the Ohio labor force are employed (Ohio Development Services Agency, 2019), compared to 63.1% of all Ohioans (U.S. Census Bureau, 2020b). Of employed Asians/Asian Americans, 20% work in computer, engineering, or science fields; 16% are in management, and 10% work in the healthcare industry (Ohio Development Services Agency, 2019). Asians/Asian Americans own over 21,000 businesses in the state, including 15% of professional/scientific/ technical services, 14% of healthcare/social assistance services, and 11% of all accommodation/ food service firms (Ohio Development Services Agency, 2019).

As a group, Asians/Asian Americans in Ohio are relatively economically secure, although there is substantial variation among subgroups and across counties (see Map 5). The median household income for Asians/Asian Americans in Ohio is nearly $76,000, compared to $56,000 for all Ohio households (Ohio Development Services Agency, 2019). About 7% of Asians/Asian Americans in Ohio lack health insurance, similar to the overall rate of 7.8% among Ohioans under the age of 65 (APIAVote, 2020; U.S. Census Bureau, 2020b).

Map 5. Median Household Incomes among Asian and Asian American Ohioans*
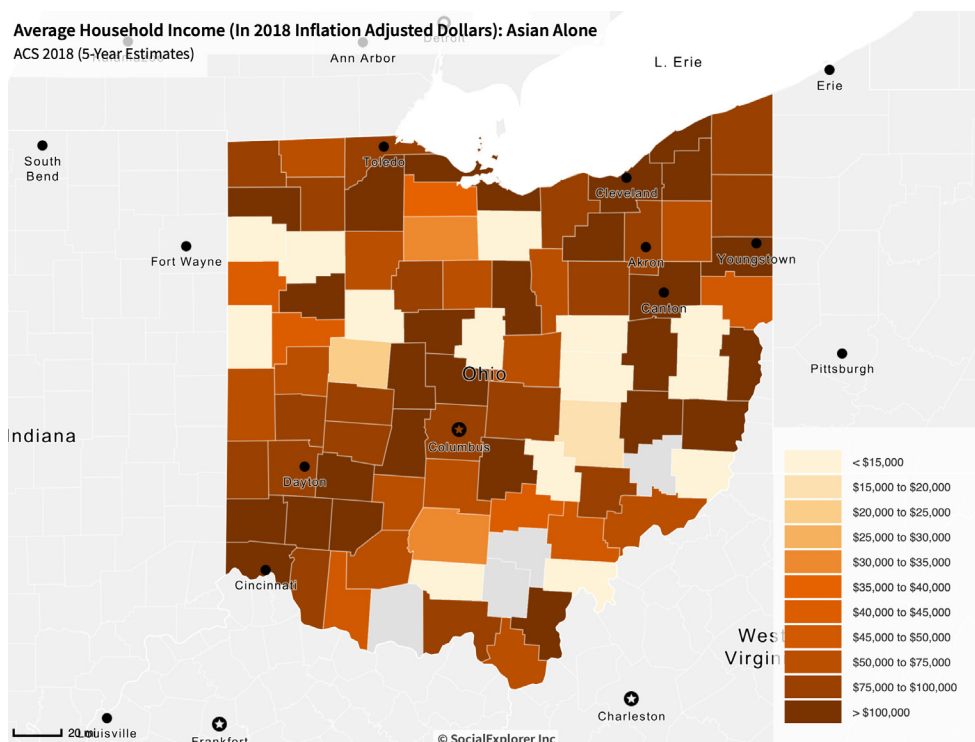
*Gray counties indicate that sufficient data are not available

Source: *Map 5*. Median Household Income among and Asian and Asian American Ohioans. Adapted from "Social Explorer," by C. M. Bijou, 2020, *Social Explorer*. Retrieved September 2020, from https://www.socialexplorer.com/69a2b37f5f/view. 2020 by Social Explorer Inc.

Overall, 13.9% of Ohioans live in poverty; this rate is about the same (14%) for all Asians/Asian Americans in Ohio although it is more than double (30%) among specific Asian/Asian American groups who identify as Native Hawaiian and Pacific Islanders (APIAVote, 2020).

Almost a quarter (23.9%) of all Asians/Asian Americans in Ohio are currently enrolled in school. This includes 39,900 Asian/Asian American students in elementary or secondary school (K-12) and 38,000 Asian/Asian American college or graduate school students (Ohio Development Services Agency, 2019). Southeast Asian Americans experience disparities in educational attainment; more than a third of Laotian, Cambodian, and Hmong adults have less than a high school diploma, as compared to 9.9% of all Ohioans (National Commission on Asian American and Pacific Islander Research in Education, 2011; U.S. Census Bureau, 2020b).

History

Immigration of sizable numbers of people from Asian countries to the United States began in the 1850s, mainly for jobs on farms, railroads, and gold mines (Klingle, 2020). Others arrived as scholars and business merchants. Immigration from Asian countries was substantially slowed by the 1924 National Origins Act and remained stagnant for more than 40 years (Klingle, 2020). The Immigration and Nationality Act of 1965 removed restrictions, leading to a wave of Asian immigration; the later United States Refugee Act of 1980 advanced Asian American immigration by supporting the resettlement of refugees mainly from Southeast Asia. Consequently, there have been large increases in Asian immigration to the U.S. during the last decades of the 20th and first decades of the 21st centuries (Hobbs & Stoops, 2002).

The first Asian Ohioans were descendants of Chinese immigrants who had previously settled on the west coast and moved into the Cleveland area (Van Tassel & Grabowski, 1996). There is also documentation of a small number of Indian Americans, mostly students, living in Cleveland as early as the 1920s (Van Tassel & Grabowski, 1996). Cleveland's Chinatown originated as early as the 1860s, growing into present-day AsiaTown as additional groups of refugees and immigrants seeking economic opportunity moved into the area (Case Western Reserve University, 2020; Van Tassel & Grabowski, 1996). Japanese Americans moved from the west coast to Midwest cities including Cleveland after World War II; Korean Americans, Vietnamese Americans and other Asian American ethnic groups including those from Bangladesh, Bhutan/Nepal, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Pakistan, the Philippines, Singapore, and Thailand have resettled in Ohio since the 1960s (Van Tassel & Grabowski, 1996; Ohio Asian American Health Coalition, 2016).

Like other people of color in the U.S., throughout their histories in the country, Asians and Asian Americans have experienced structural and interpersonal oppression, including hate crimes, exclusionary policies and deportations. The 1882 Chinese Exclusion Act banned immigration and prohibits citizenship of Chinese workers and their American-born children; these restrictions were enforced into the 1940s and extended over time to other Asian groups including Japanese, Asian Indians, Filipinos, and Koreans (PBS, 2001). Japanese Americans, including citizens, were also imprisoned in internment camps during WWII (PBS, 2001).

Health Profile

In general Asians/Asian Americans have lower infant mortality rates than non-Hispanic White Americans (3.78 and 4.67 deaths per 1,000 live births, respectively), but the specific subgroup of Native Hawaiians and other Pacific Islanders suffer much higher infant mortality at 7.64 deaths per 1,000 live births (Ely & Driscoll, 2019). Life expectancy at birth is about the same for Asians/Asian Americans (79.9 years) and non-Hispanic Whites (79.8 years) (Office of Minority Health, 2019a). The leading causes of death for Asians/Asian Americans in both Ohio and the entire U.S. are cancer (30%), heart disease (15%), stroke (9%), and accidents (9%) (Asian American Center for Advancing Justice, 2015; CDC, 2019). Nationally, Asians/Asian Americans have a lower prevalence of disability (1 in 10) than other racial-ethnic groups (Courtney-Long et al., 2017).

Asians and Asian Americans have elevated rates of some health problems relevant to other Ohioans. Asians and Asian Americans make up over half of all Americans living with Hepatitis B (CDC, 2020a). Cambodian, Vietnamese, and Chinese populations in particular are disproportionately affected by Hepatitis B, due largely to ongoing impediments to vaccine uptake such as language barriers, fear of adverse effects, and lack of knowledge (Misra et al., 2013). Asians/Asian Americans also account for nearly 20% of Ohio's tuberculosis cases, and Ohio residents of Indian descent have coronary artery disease four times that of the general U.S. population (Governor's Asian American Pacific Islander Advisory Council, 2010). In addition, while about 7.1% of Asians and Asian Americans overall smoke, tobacco smoking rates are considerably higher among certain subgroups (CDC, 2018). Potentially attributable to aggressive tobacco marketing in Asia and the Pacific Islands as well as targeted marketing to communities of color in the U.S., cigarette smoking prevalence differs by subgroup, with 20% among U.S. Koreans, 16.3% among Vietnamese, as compared to 13.7% in the overall U.S. population (Lew & Tanjasiri, 2003; CDC, 2019).

Asians and Asian Americans in the U.S. access mental health services at considerably lower rates than other U.S. populations (Abe-Kim et al., 2007). The leading cause of death for 15 to 24 year old Asian/Asian American youth is suicide, while it is accidents within the general population of U.S. youth (Office of Minority Health, 2019b). Southeast Asian refugees are at particular risk for PTSD (National Diabetes Education Program, 2006). Asians/Asian Americans are also considerably less likely than other U.S. racial groups to receive needed mental health care: in 2015, only 22% of Asians/Asian Americans with mental illness received mental health services, as compared to 48% of Whites and 31% of Blacks and Hispanics (Tanqueco & Patel, 2020). Stigma about seeking professional help, lack of awareness about services, and lack of bilingual services contribute to this mental health disparity (Nishi, 2012).

Challenges Specific to COVID-19

The first cases of COVID-19, caused by a novel coronavirus subsequently named SARS-CoV-2, were documented in Wuhan, China, in the final weeks of 2019 (Cascella et al., 2020). Within the U.S. the disease has been widely associated with China, both in the minds of the U.S. public and in the speech of President Donald Trump and some other national leaders. Since the start of the U.S. COVID-19 epidemic, Asians and Asian Americans have been subject to documented discrimination, hate crimes, and loss of support for Asian-owned businesses (Kipgen, 2020; Kramer, 2020). A Pew Research Center (2020) study reported that 36% of Asian Americans worried about wearing a mask in public, 26% feared someone might threaten or physically attack them, and 31% had been subject to discriminatory slurs and jokes. Between March 19th and August 5th, 2020, STOP AAPI Hate received 2583 reports of anti-Asian bias from across the country. Over that 20-week period, 70.6% of these incidents involve verbal harassment or name calling, 8.7% involved physical assault, and 4.3% involved workplace discrimination (Asian Pacific Policy and Planning Council, 2020). Since the beginning of the COVID-19 outbreak there has been a 39% increase in the use of the Mental Health America anxiety screening tool by Asian Americans, compared to a 22% increase across the general population (Gover et al., 2020).

Culture and Health

Within and among Asian and Asian American ethnic groups, cultures differ depending on place of origin, immigration status/generation, and more. Generally, Asian cultures are collectivist, meaning that family and community needs are valued over individual needs (Kawamura, 2012). It is not uncommon for families, especially refugees and recent immigrants, to live in multi-generational households. Asians and Asian Americans commonly use home remedies and complementary and alternative medicine (CAM) before, or in addition to, Western medicine. Examples of CAM include acupuncture, massage, cupping, or herbal remedies. A California study representative of Asian American ethnic subgroups found that 75% of adults used at least one type of CAM in the past year, and that Chinese Americans were mostly likely to use CAM practices (Hsiao et al., 2006).

Findings from Analysis of *Needs Assessment* Data from Respondents Representing Asian and Asian American Ohioans

Description of Respondents: 41 respondents representing Asian and Asian American communities in Ohio completed the *Needs Assessment* survey. This is not a general sample of Asians and Asian Americans, but a purposeful sample of individuals who represent organizations, agencies, and community groups that work with Asian and Asian American populations. Ninety percent identified as members of one of these communities themselves. 18 respondents work with these communities through non-profit organizations; others are connected to these communities through (in order of frequency) a hospital, religious organization, community health center, local health department and other governmental organization; in addition, 7 respondents noted they were connected through "other" means. Our respondents generally serve high-need groups, so the findings below apply most clearly to that subset of Asian and Asian Americans in Ohio.

I. Strengths of the Community

Respondents identified a broad range of community strengths that should be used as part of COVID-19 response within Ohio's Asian/Asian American communities. These commonly included:

- Lots of health-care know-how and expertise

- Knowing the native languages

- Ability to spread information quickly – small communities, good communication

- Characteristics of these communities:

  - Close knit
  - Resilient
  - Follow recommended guidelines
  - Listens to authorities
  - Hardworking
  - Patient in the face of adversity
  - Collectivist – take community well-being seriously
  - Willing to help each other
  - Community-driven; great at organizing events
  - Transparency

- Many community organizations

- Some are involved in church and temple networks

- Some parts of the community are doing well financially, have disposable income

II. Key Barriers to Using Public Health Strategies to Minimize the Impact of COVID-19

These categories represent the most common barriers to Asian and Asian American communities using public health strategies to minimize the impact of COVID-19. These key barriers were mentioned by multiple respondents (usually at least 4, up to 10 or more), and they affect communities' ability to use multiple public health strategies. A summary of each barrier is followed by bullets that detail specific instances and problems commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

Topic A: Hygiene

Topic B: Social Distancing

Topic C: Mask-Wearing and Personal Protective Equipment (PPE)

Topic D: COVID-19 Testing

Topic E: Contract Tracing

Topic F: Isolation

Topic G: Self-Quarantining

Topic H: Healthcare Access

1. Lack of access, availability, and cost

This barrier limits the ability of community members to use protective hygiene practices, utilize PPE and COVID-19 testing, and access healthcare (Topics ACDH).

- Socioeconomic status of these communities is bifurcated – some are relatively well-off, others are low-income and lack financial resources

- Cleaning supplies, masks, PPE are not adequately available at stores; there is hoarding of supplies

- Masks, PPE, cleaning supplies can be expensive, difficult to afford

- There is a limited supply of PPE for medical workers, in workplaces in general

- Not knowing how to make masks or PPE, and not knowing anyone who makes them

- There is an inadequate number of testing sites, tests available

- There is a lack of funds or health insurance to pay for testing

- There is a lack of access to primary health care, family care for elders

- Undocumented individuals have no access to healthcare

- Getting tested requires a doctor's order

- There is a lack of health insurance and ability to pay for healthcare

- There is limited informational outreach to Asian/Asian American communities

- There is a lack of access to technology, Internet, computers

"[There is a] lack of understanding about where to go for testing. Initially individuals wanted to go to the Emergency Department but symptoms did not require this level of care."

"The lack of contact tracing and the continued growth of cases has not given the group confidence to schedule any in-person group gatherings this year."

2. Racism and immigration dynamics

Racism and immigration issues reduce the ability of Asian/Asian American communities in the U.S. to wear masks and use PPE, testing, contact tracing, and healthcare (Topic CDEH).

- Racism against Asian/Asian American communities in the U.S. impacts their safety and can take an emotional toll

- Racism and discrimination against Asian/Asian American communities creates a general sense of fear that deters engagement with COVID-19 information and protections

- Fear among undocumented groups of being reported to ICE/immigration authorities or deported; this creates a barrier to testing, contact tracing, and engaging with healthcare

- Undocumented individuals might provide fake addresses

- Asian/Asian American community members are often targeted by people who perceive that they are spreading COVID-19

- Mask-wearers in particular have been targeted; community members are now reluctant to wear masks in public

- Experiences of racial targeting and hate crimes reduce the ability of Asian/Asian American communities to wear masks and use PPE, testing, contact tracing, and healthcare

- Asian/Asian American communities in the U.S. have very limited political power

- Some are reluctant to use health facilities; they may fear of getting tested or seeking treatment

"If you are asking me to describe how the community is faring during COVID-19, I would say poorly due to anti-Asian racism manifesting in verbal harassment, physical attacks, a devastating loss of livelihood, a lack of advocacy and support at all levels of government, a lack of acknowledgment from white communities, and a lack of solidarity from other communities of color."

"Especially in the earlier days of COVID people would ask me why I am wearing a mask and be suspicious and wary of me wearing a mask. I felt I was singled out just because I'm Asian. Stories of Asians getting attacked also made me feel fearful of going out or wearing a mask."

"If not documented, [people] will never go to a testing site unless their identity is protected."

3. Language barriers

Language barriers limit the ability of some Asian/Asian American community members to use public health strategies to minimize the impact of COVID-19. Strategies affected include use of protective hygiene, social distancing, testing, contact tracing, and healthcare (Topics ACDEH).

- Lack of information offered in appropriate languages limits understanding of public health strategies to minimize the impact of COVID-19, and ability to use testing, healthcare, and contact tracing

- Elders and new immigrants may be unable to speak English; others may have low English proficiency

- Translation may not be available

- Family members, children are sometimes the only translators available

- Translation may still lead to confusion and misinterpretations

- Language barriers may cause fear

- Inadequate communication may exist between medical professionals and patients

- Many individuals with low English proficiency do not answer their phones

"Limited English Proficiency is well-documented among various Asian populations. [Contact tracing] interviews conducted by Asian language speakers are far more effective than those conducted in English."

4. Work-related challenges

The need to work, and conditions at work, constitute significant barriers that affect the ability of Asian/Asian American community members to practice protective hygiene, social distancing, contact tracing, isolation and self-quarantining (Topics ABEFG).

- Type of work/employer prevents working from home

- Low-income individuals may be unable to stop working because they need to support families and households

- Work is often in essential jobs: health workers, first responders, low-wage workers

- Work often involves close contact, little time off, or contact with many unknown people

- Adequate social distancing is often impossible at work; this applies across a broad range of employment categories, both professional and working-class jobs

"[The] majority of members of [my] community are healthcare workers who need to work during the lockdown."

"I have concerns about the well-being of Asian restaurant workers and Asian personal care (e.g.. hair and nail salon) workers."

"Ohio public health does not currently provide routine tests for everyone with COVID-19 symptoms. Most importantly, effective strategies to prevent asymptomatic COVID-19 transmission are not in place. Therefore, many essential workers remain in jeopardy of infection."

5. Gaps in education, information, and understanding

Asian/Asian American community members often lack up-to-date health information relevant to COVID-19. This can impede the use of social distancing, contact tracing, isolation, self-quarantining, and healthcare (Topics BEFGH).

- Lack of information about COVID-19 in general

- Inconsistent adherence to guidelines due to lack of knowledge or information

- Not understanding the value of social distancing or the need for PPE

- Lack of technology or computers to access relevant information

- Misinformation or false news

- Lack of knowledge about the need to isolate, when and how to do so

- Lack of awareness that contact tracing exists

- Not knowing where to go for healthcare or what facilities are open

"[Some community members] can be easily influenced by false news."

"[People have] no experience on self-quarantine; [they are] just following stay home policy."

6. Housing challenges

Housing conditions within Asian/Asian American communities affect members' ability to use protective hygiene practices and social distancing, and to practice isolation and self-quarantining when needed (Topics ABFG).

- Many people share one home

- There are multi-family and multi-generational households

- Small physical space and/or crowded conditions may exist

- Low income, immigrant, refugee households in particular live in close quarters

- Caregivers cannot isolate from the person they provide care for

"Large families with limited living space and few rooms make isolation challenging or impossible for many Asian families."

"Asian communities have big families and [lots of] friends with heavy religious backgrounds. People may be wary of being separated from each other and may refuse to do so."

"[There] may be several households in a [single] apartment."

7. Cultural norms and attitudes

Norms, values, and attitudes of the Asian/Asian American community inhibit members' use of many public health strategies to minimize the impact of COVID-19, including hygiene, social distancing, contact tracing, isolation, self-quarantining, and healthcare (Topics ABEFGH).

- Asian/Asian American cultures are oriented toward privacy, which can inhibit use of contact tracing and other public health strategies

- Cultural norms are friendly, gregarious; gatherings and social functions are common

- Close family ties exist; neighbors are treated as family

- Family members are caregivers to elders

- Some are living with trauma, need to depend on each other

- Social distancing and quarantining create feelings of isolation, trigger stigma

- There is stigma around mental health care

- Some use alternative medicinal practices instead of Western healthcare

- Some are reluctance to use health facilities, or fear getting tested or seeking treatment

- There is some forgetfulness and disregard of policies and guidelines related to COVID-19

- Eating with hands is common, as is hugging, kissing, or touching when greeting

- Community members show respect for others through touching

- There is a tendency to conserve and re-use supplies

- Religious spaces are sacred, services also elicit large groups

- Age distinctions exist such that older people are better at wearing masks and social distancing

"Asians tend to be community and family focused, which may inhibit isolating."

"I feel the community goes to whichever pharmacy and sometimes [community members] don't even trust American pharmacists and stick rather to traditional medicine and over the counter stuff at Asian groceries."

8. Transportation challenges

Limited transportation options impede the use of social distancing, COVID-19 testing, and healthcare (Topics BDH).

- Private transportation is lacking

- Many commute to work in shared vehicles

- Transportation to obtain culturally-specific groceries is lacking

"[There is often] no transportation available for essential needs, especially for students."

"Many of our community members do not have access to transportation, so often times caseworkers will take clients to appointments. This is why it is important for mainstream organizations to work with local community efforts to ensure testing is properly distributed."

IV. Key Ideas (Solutions) to Address Barriers and Minimize the Impact of COVID-19

These categories represent the most common solutions suggested to help Asian/Asian American communities use public health strategies to minimize the impact of COVID-19. These key ideas were mentioned by multiple respondents (ranging from 5 to 10 or more) and would facilitate communities' ability to use multiple public health strategies. A summary of each proposed solution is followed by bullets that list details and specifics commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

1. Address anti-Asian/Asian American discrimination, harassment, and violence

Responding to racism and anti-Asian/Asian American aggression is among the most important interventions identified. Direct support for Asian/Asian American communities by public leaders could help Asian/Asian Americans be more able to respond proactively to COVID-19 in general, and to wear masks specifically (Topic C and general).

- Call attention to racism and respond to it directly (racist attacks, derogatory language, language that associates COVID-19 with Asian/Asian American communities, etc.)

- State, local, and university leaders can recognize and condemn anti-Asian/Asian American violence publicly

- Grassroots support for encouraging reporting of bigotry

- Mandatory mask use in public places will decrease racial profiling and harassment

"We need state and local leadership to recognize publicly that Anti-Asian violence is occurring related to the COVID-19 pandemic."

"Develop and disseminate video messaging with advice from the Asian community... to raise awareness...My wife (also Asian American) consistently wears a mask when shopping at a grocery store and receives off-putting stares. She does not wish to escalate the situation by confronting the other persons. This feels very different from pre-COVID-19. There are similar stories from Asian friends."

2. Provide supplies, services, and resources directly

Many of the most common suggestions about how to improve Asian/Asian American communities' ability to use most public health strategies to minimize the impact of COVID-19 involve direct provision of supplies, services, and resources. These strategies include protective hygiene, social media, PPE, testing, isolation, self-quarantining, and healthcare (Topics ABCDFGH).

- Distribute care packets including cleaning supplies, masks, food, etc.

- Provide free or low-cost masks, gloves, cleaning supplies, and sanitizers

- Deliver PPE to households

- Ensure that healthcare workers and sites have PPE

- Increase PPE available for purchase through grocery stores, neighborhood pantries, other community locations; hold distribution events

- Provide N95 masks to those who interact regularly with the public, including health care providers and personal care providers (e.g.: nail salon workers, restaurant workers, etc.)

- Enroll volunteers in making masks; have poor communities make and sell them

- Provide alternate housing for isolating, self-quarantining, recovering from COVID-19

"We have our caseworkers regularly doing home visits because we know that several of our community members do not have access to transportation, culturally-specific groceries, cleaning supplies, and information/updates. Our caseworkers always wear face masks which helps communities understand the importance of health guidelines and receive proper updates. We know that without our regular drop-offs and without our regular services, many of our families won't have adequate basic hygiene needs met."

"Two highly respected and well-known physicians recently battled a COVID-19 infection. One, only 50 years of age, died after a prolonged illness. Sadly, both felt compelled to work without adequate PPE, including N95 masks. Our communities demand that those who continue to provide vital services work under safe conditions that include basic protections that should cost only a few dollars."

- Provide financial support to defray costs of isolation, quarantine

- Provide free testing at a range of locations, including at home, drive-through locations, and local employers

- Provide more testing in general, including to essential workers and family members of diagnosed individuals

- Provide support for technological solutions

- Provide transportation to testing and healthcare

- Continue telehealth through clinics and Federally Qualified Health Centers (FQHCs), provide help to schedule telehealth appointments

- Improve access to healthcare through free clinics and less expensive health insurance

- Provide more direct financial support

- Improve public benefits for those who have been laid off or are unemployed

3. Enhance COVID-related education and information

Additional education and information could help Asian/Asian American communities use protective hygiene, social distancing, PPE, COVID-19 testing, and isolation (Topics ABCDF).

- Education and information should be provided about:

  - General awareness of COVID-19

  - Reminders about CDC guidelines

  - Encouraging hygiene, social distancing, and masks to provide protection at home, in religious spaces

  - How and where to obtain PPE, effectiveness of N95 masks

  - Where, when, and how to access testing

  - How testing works, whether it hurts

  - How contact tracing works and why it is important

  - Designating a place in the home to isolate

- Modes and methods of information delivery:

  - Include words and images that will resonate with Asian/Asian American communities

  - Create educational resources in native languages or use bilingual resources

  - Visual demonstrations

  - Stories about effects of COVID-19, particularly on Asian/Asian American individuals and groups

  - Webinars, video events

  - Constant reminders, continual education

  - Ethnic Facebook, ethnic social media

  - Use communications from public health experts

  - Provide information to family members of tested/diagnosed individuals

"[Be] mindful of words in English that cannot be translated properly in another language about the use of hygiene practices; [be] mindful of cultural communication."

4. Make guidance mandatory

Making guidance about social distancing and mask use in public spaces mandatory would help Asian/Asian American populations use both these protective strategies (Topics BC).

5. Involve trusted community members and leaders

Direct involvement of Asian/Asian American community members, leaders, and organizations will help the community use COVID-19 testing, contact tracing, isolation, and healthcare (Topics DEFH).

- Identify community leaders to provide information directly to community members

- Engage community organizations who specialize in specific Asian/Asian American populations

- Use community resources to spread information – ethnic social media, TV, churches, temples

- Use trusted organizations and facilities (ethnic health organizations, community FQHCs) to promote and conduct testing

- Use Asian language speakers to conduct contact tracing; interviews conducted by native language speakers will be more effective

- Utilize community health workers

- Provide bilingual health care advocates

"[Community members] will listen to authority, especially if that representative is Asian."

"Partner with churches if possible! Or even Asian markets. [We] would be able to get access to most [of the] population that way."

"Given the widespread network of pharmacies as well as a few local, private, Asian-owned pharmacies, this seems like a good partnership."

Other Ideas

These additional ideas represent separate potential solutions reported by multiple respondents, but not as frequently as the 5 key ideas described above.

- Topic D – Testing

  - Alleviate concerns about being able to get treatment if a test comes back positive, even if uninsured

  - Allow individuals with antibodies to donate plasma, use for treatment

- Topic E – Contact Tracing

  - Offer access to a translator if needed

  - Use simplified interview language to ensure sensible translation

  - Hire bilingual contact tracers from Asian/Asian American communities

V. Trusted Community Resources and Linkages

Respondents also identified many trusted community resources – including categories of organizations, individual organizations, and individuals. Categories of organizations most commonly included:

- For health information:

    - Free clinics, healthcare facilities, primary care doctors

    - Ethnic health coalitions and organizations

    - OH Department of Health, CDC, WHO

    - News, online information

- For medical care:

    - Free clinics, healthcare facilities, primary care doctors

    - Community services organizations and alliances

    - Local doctors, clinics, health centers, medical centers

    - University healthcare systems

- For social service information & resources:

    - Asian/Asian American community family support services organizations

    - Churches and temples

    - Community organizations

    - Food pantries

Respondents' comments were mostly very positive about linking the population to Ohio's Federal Qualified Health Centers (FQHCs) and community health centers (CHCs) to help minimize the impacts of COVID-19. Multiple respondents mentioned that these health centers would be more accessible than larger hospitals and clinics at this time.

Respondents also made positive comments about linking the population to specific pharmacies or pharmacists to partner in minimizing the impact of COVID-19. Some also expressed reservations – because of lack of trust in American pharmacists, or because other communities in Ohio might need this resource more than Asian/Asian American communities.

Final Recommendations to Minimize the Impact of COVID-19 on Asian and Asian American Populations in Ohio

These recommendations reflect the data provided by respondents representing Asian and Asian American communities as well as additional context and insight provided by our panel of expert researchers, public leaders, and practitioners with expertise focused on Asian and Asian American communities.

1. Center the COVID-19 response in the organizations and cultures of local communities, implementing public health activity through partnerships with trusted community groups, empowering local organizations to lead this work, and providing them with resources to do so.

Immediate, COVID-19 specific, recommendations:

Partner with trusted community centers, ethnic organizations, churches, temples, and community Federally Qualified Health Centers (FQHCs) to develop and disseminate educational information, provide cleaning/disinfecting supplies and PPE, conduct COVID-19 testing and contact tracing, and support community members dealing with exposure or infection.

Directly involve members of Asian/Asian American communities in creating and disseminating educational materials related to the COVID response, and as medical staff at testing and healthcare sites.

Hire Asian/Asian American community members and native language speakers to train and serve as community health workers/navigators/liaisons, contact tracers, and translators in testing and healthcare sites.

Provide financial incentives and encouragement for Asians/Asian Americans, particularly from disadvantaged backgrounds, to train and serve in jobs serving community well-being and health.

Develop and expand community health worker/navigator/liaison (CHW) programs to serve as central launching points for educational and COVID-related interventions in communities. CHWs should be employed from a range of ethnic communities, adequately trained and funded, and work in multiple languages (using telephonic interpretation services when needed). CHWs can function as a bridge between community members, community organizations, and health and social resources.

Fund and empower community organizations and leaders to make decisions and implement COVID-related outreach and interventions that are both consistent with public health recommendations and tailored to community values, concerns, and cultures.

Acknowledge the ethnic, religious, and socioeconomic heterogeneity of Asian/Asian American populations as well as their intersectional identities (e.g.: people with disabilities, refugees) in the development of materials, programs, and services.

Create Mutual Aid or similar groups for Asians/Asian Americans in Ohio to get to know and help one another; encourage volunteerism including mask-making and other COVID-related activities.

2. Explicitly address economic injustice and its widespread health and social impacts by directly improving access to resources to support disease prevention, COVID-19 response, and necessities of daily living.

Immediate, COVID-19 specific, recommendations:

Facilitate ready access to masks, disinfecting/cleaning supplies, and other essential supplies.

- Provide free or low-cost access to masks, gloves, cleaning supplies, and sanitizers by improving availability and access at local retail sites, distribution through community organizations, and delivery to homes when needed.

- Ensure that supplies can be purchased in cash when that is preferred.

- Ensure that sufficient PPE, including N95 masks, are available for healthcare workers, personal care providers, and others who interact regularly with the public.

Provide free COVID-19 testing where people live and work.

- Locate testing at convenient community sites (e.g.: Asian groceries), drive-through locations, and local employment sites.

- Ensure at a minimum that sufficient testing is available to essential workers, those with symptoms, and family members of diagnosed individuals.

- Ensure that COVID-19 testing is available without health insurance, without a doctor's recommendation, without documentation required, without questions about immigration status, and with support from translators or multilingual staff.

- Provide COVID-related education through testing sites, for those tested, family members, and communities.

Ensure that contact tracing can be done in the appropriate languages for each community, and in-person, by phone, or through a self-serve or technology-assisted method for individuals who are reluctant to share private information with a contact tracer.

Improve healthcare access to ensure that those who test positive can be effectively linked to ongoing care.

- Ensure that individuals can access COVID-related and primary healthcare regardless of insurance status.

- Provide navigators to help individuals enroll in health insurance, schedule telehealth appointments.

- Continue and expand telehealth through a range of clinics and Federally Qualified Health Centers (FQHCs).

- Facilitate re-opening of healthcare facilities, especially to meet the needs of individuals who face language-related or technological barriers to using telehealth.

- Improve access to mental health services to address trauma-related problems and stress related to COVID-19, mask-wearing, and racism.

Fund widespread Internet access and other technological solutions.

- Provide direct financial support to defray costs of isolation, quarantine, and increase public benefits to those who are laid off or face increasing financial challenges due to COVID-19.

Immediate recommendations to improve the health of communities:

Improve healthcare access through free clinics and less expensive health insurance.

3. Directly recognize and address anti-Asian/Asian American racism, harassment, and violence through strong statements by public leaders, public education, and policy change.

Immediate, COVID-19 specific, recommendations:

Public leaders and elected officials at state, local, and university leadership levels should call public attention to anti-Asian/Asian American racism and condemn it in public statements and venues.

Public leaders and elected officials should explicitly and publicly refute misinformation, stereotypes, and xenophobia whenever they are articulated or disseminated in public spaces.

Public leaders should promptly and directly refute statements associating COVID-19 with Asian/Asian American communities (including language such as "China virus", "Chinese virus", "kung flu").

Public authorities should disseminate accurate information about how COVID-19 spreads and the fact that all racial-ethnic groups are equally vulnerable.

Government and private efforts to mitigate COVID-19 should routinely support and promote community-based and Asian-owned businesses and organizations.

Hate crimes against, and harassment of, Asian/Asian American mask-wearers and others should not be tolerated and should be prosecuted when appropriate.

Mask wearing should be publicly promoted as an expression of conscientiousness and community support, not an indicator of illness.

Mandatory mask ordinances should be considered as methods of reducing racial profiling and harassment, as well as reducing COVID-19 transmission.

Ensure that ICE (U.S. Immigration and Customs Enforcement) is disconnected from COVID-19 interventions such as testing and contact tracing, and from the use of healthcare. [1]

1   Wong, 2015.

Immediate recommendations to improve the health of communities:

Education about recognizing bias should be offered in Asian and Asian American communities; individuals should be encouraged to report incidents of bigotry and harassment, and to seek help when incidents impact their safety or emotional health. [1]

Police officers and school officials should be educated about anti-Asian bias and trained to take reports of such incidents seriously and respond appropriately.

Ongoing implicit bias and cultural competency training sessions should be mandatory for all state employees, police, teachers, healthcare providers, social service providers, and trainees for these positions.

Recommendations to create a social context for long-term health and wellness:

Funded initiatives should directly address anti-Asian/Asian American racism in the U.S. and should help increase public representation of these communities.

[1] Incidents of bias, bigotry, and harassment can be reported to organizations such as Stop AAPI Hate: https://stopaapihate.com

4. **Improve public policies to address COVID-19 systematically and protect individuals from negative impacts of compliance.**

Immediate, COVID-19 specific, recommendations:

Make guidance about social distancing and mask use in public spaces mandatory.

Mandate COVID-19 prevention measures in all workplaces, and that social distancing and mask use be required for all types of workers and customers.

Clarify that immigration status will not be asked about, and immigration authorities will not be involved, in contexts related to COVID-19 education, testing, contact tracing, or healthcare.

Recommendations to create a social context for long-term health and wellness:

Elevate the Ohio Asian American Pacific Islander Advisory Council to Commission status to ensure a permanent line of communication from communities to state government.

5. **Provide alternate housing solutions to alleviate transmission risks due to crowded living conditions.**

Immediate, COVID-19 specific, recommendations:

Provide temporary housing for people who live in crowded conditions but need to isolate or self-quarantine.

Provide housing options that allow individuals who must isolate or self-quarantine to do so with a family member when they feel strongly about not being alone, or with a caregiver when help is needed.

6. Coordinate COVID-safe transportation for those otherwise unable to procure basic or COVID-related supplies, get to a testing site, or access healthcare.

7. Increase and improve the dissemination of high-quality, culturally connected COVID-related education throughout communities.

Immediate, COVID-19 specific, recommendations:

Initiate a comprehensive mass media campaign to continually disseminate credible and tailored communication from public health experts, about COVID-19 and its impact on communities.

Ensure that educational messaging is culturally-tailored, presented in all the languages each community speaks and in terms appropriate for individuals with low literacy, includes lots of visual aids, uses words that will resonate with each community, and features diverse graphics centered on members of the community.[1] [2]

Develop culturally-relevant educational materials that cover a broad range of COVID-related topics, including: general awareness of COVID-19; CDC guidelines; the efficacy of protective measures including hand washing, surface cleaning, mask wearing, and social distancing; suggestions for staying safely connected with family and community; how and where to obtain PPE and masks; when, where, and how to get a COVID-19 test; how testing works and whether it hurts; why contact tracing is important and how it works; when and how to isolate and quarantine; how telehealth appointments work; how to use COVID-related protections while at work, in religious spaces, and when in caregiving roles.

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1 For examples of video-based illness-prevention educational material tailored to multiple communities in multiple Asian languages, see: https://youtu.be/v98Bg_iDP0E and https://youtu.be/GCMIIQ9M4ro. For an example suite of tools built to provide educational information across Asian communities and languages, see: http://www.screenat23.org.
2 For examples of community-centered educational material related to COVID-19, see: https://www.npr.org/2020/06/17/877498373/coronavirus-racism-and-kindness-how-nyc-middle-schoolers-built-a-winning-podcast and https://www.npr.org/2020/06/03/867842394/the-winners-of-the-npr-student-podcast-challenge

Disseminate culturally relevant educational materials through a range of modes, including webinars and video events, ethnic social media channels, mailers and flyers, visual demonstrations, TV, and radio.

Recognize the importance of familial and community connection, acknowledge the difficulties of COVID-19 protections, and make suggestions about how to safely stay connected, support each other, prevent feelings of isolation, adapt traditional greetings (which include hugging, kissing, forehead touch), and modify religious ceremonies and personal celebrations.

Reduce stigma around mental health services, distribute lists of mental health resources in the community, and provide information about how to care for mental health, respond to racist incidents, and cope with stress related to mask-wearing and discrimination.

Assist community organizations in creating COVID-related educational materials and adapting to COVID-safe practices (e.g.: cameras to facilitate recording religious ceremonies).

Recommendations to create a social context for long-term health and wellness:

Train and hire more Asian American educators in K-12 settings. [1]

1 National Center for Education Statistics, 2020.

8. Provide services and hire multilingual workers to resolve language barriers.

Immediate, COVID-19 specific, recommendations:

Ensure that health centers, departments, and facilities (including the Ohio Department of Health Coronavirus Call Center) have multilingual services or interpretation available and work in culturally-appropriate ways.

Hire community members who speak Asian languages to work as interpreters in testing and healthcare sites, and as or with contact tracers.

Fund interpreter trainings to increase the pool of individuals who can provide native-language educational information and support testing, healthcare, and contact tracing efforts.

Devise educational materials and contact tracing protocols using simple language to facilitate easy, sensible translation.

Findings and Recommendations for *Needs Assessment* Populations

Immigrant and Refugee Communities in Ohio

Background

Terminology

Needs Assessment key populations are identified throughout this document using the terminology preferred by respondents. This section focuses on those who identified themselves as representing immigrant and refugee populations in Ohio.

The term 'immigrant' refers to "any person who changes their country of usual residence". "Usual residence" incorporates two components; it is a place where one lives and spends their daily period of rest. The term 'immigrant' does not refer to individuals who engage in temporary travel, including for recreation, business, holiday, medical care, or religious practices (International Organization for Migration, 2018). The terms 'first-generation immigrant' and 'second-generation immigrant' additional refer to individuals born in the U.S. but whose parents or grandparents are foreign-born.

The term 'refugee' refers to "any person who leaves their initial country of usual residence for fear of being harmed or harmed further because of their race/ethnicity, religion, nationality, political opinion, or membership of a particular social group" (International Organization for Migration, 2018).

Population

Over 550,000 (nearly 5%) of Ohio's total population are foreign-born immigrants or refugees. While Ohio's total population has experienced less than 10% growth since 1990, the number of immigrants and refugees in Ohio has more than doubled over these 30 years. An additional 5% of Ohio's population are native-born U.S. citizens with at least one immigrant parent (American Immigration Council, 2020; Migration Policy Institute, 2018). Today, immigrants and refugees in Ohio hail from many different countries (see Table 6), including India (11.8% of immigrants in Ohio), Mexico (8.6%), China (7.6%), the Philippines (2.9%), and Canada (2.5%) (American Immigration Council, 2020).

Table 6. Prevalence of Immigrants in Ohio, by Country of Origin

	N	Percent
Detailed Region/Country of Birth	**555,442**	**100%**
Europe	99,860	18.0%
Northern Europe	14,542	2.6%
United Kingdom	11,181	2.0%
Ireland	1,183	0.2%
Other Northern Europe	2,178	0.4%
Western Europe	20,465	3.7%
France	3,346	0.6%
Germany	13,580	2.4%
Other Western Europe	3,539	0.6%
Southern Europe	13,568	2.4%
Italy	8,188	1.5%
Portugal	618	0.1%
Other Southern Europe	4,762	0.9%
Eastern Europe	50,971	9.2%
Poland	4,888	0.9%
Russia	7,478	1.3%
Other Eastern Europe	38,605	7.0%
Other Europe (no country specified)	314	0.1%

	N	Percent
Asia	240,152	43.2%
Eastern Asia	66,785	12.0%
China	42,048	7.6%
China, excluding Taiwan	38,393	6.9%
Taiwan	3,655	0.7%
Japan	9,008	1.6%
Korea	15,729	2.8%
Other Eastern Asia	0	0.0%
South Central Asia	99,897	18.0%
India	65,338	11.8%
Iran	4,127	0.7%
Other South Central Asia	30,432	5.5%
Southeastern Asia	41,960	7.6%
Philippines	15,990	2.9%
Vietnam	11,789	2.1%
Other Southeastern Asia	14,181	2.6%
Western Asia	28,427	5.1%
Israel	1,497	0.3%
Lebanon	4,754	0.9%
Other Western Asia	22,176	4.0%
Other Asia (no country specified)	3,083	0.6%

	N	Percent
Africa	88,669	16.0%
Eastern Africa	32,190	5.8%
Northern Africa	9,610	1.7%
Western Africa	33,505	6.0%
Middle and Southern Africa	5,624	1.0%
Other Africa (no country specified)	7,740	1.4%
Oceania	4,133	0.7%
Australia and New Zealand subregion	1,904	0.3%
Oceania (no country specified)	2,229	0.4%

	N	Percent
Americas	122,628	22.1%
Latin America	108,648	19.6%
Caribbean	19,348	3.5%
Cuba	2,354	0.4%
Jamaica	4,386	0.8%
Other Caribbean	12,608	2.3%
Central America	70,731	12.7%
Mexico	47,853	8.6%
El Salvador	7,227	1.3%
Other Central America	15,651	2.8%
South America	18,569	3.3%
Brazil	3,081	0.6%
Colombia	3,801	0.7%
Other South America	11,687	2.1%
Northern America	13,980	2.5%
Canada	13,980	2.5%
Other Northern America	0	0.0%

Source: *Table 6*. Prevalence of Immigrants in Ohio, by Country of Origin. Adapted from "Place of Birth for the Foreign-Born Population in the United States," by J. M. Macisco, 2020, *U.S. Census Bureau*. Retrieved July, 2020 from https://data.census.gov/cedsci/table?q=B05006&g=0400000US39&tid=ACSDT5Y2017.B05006. 2020 by U.S. Census Bureau.

Ohio's cities and metropolitan areas are home to a majority of the state's immigrants and refugees (see Map 6). Columbus has the largest percentage of immigrants (7.5% of the city's total population), followed by Cleveland (5.7%), Cincinnati (5.0%), and Dayton (4.3%) (National Immigrant Forum, 2019). Very few immigrants settle in Appalachian areas, but approximately 20% of Ohio's immigrant population resides in rural communities across the state (Chicago Council on Global Affairs, 2012).

About 5.0% of refugees in the U.S. are resettled in Ohio, such that between 1983 and 2013, 45,392 refugees were resettled in the state. There are refugee communities in all major Ohio cities, but most reside in five counties: Cuyahoga, Franklin, Hamilton, Montgomery, and Summit (ODJFS, 2018). The primary refugee communities in central Ohio include Afghani, Bhutanese-Nepali, Burmese, Congolese, Ethiopian, Eritrean, Iraqi, Somali, Syrian, and Ugandan peoples (Community Refugee & Immigration Services, 2020).

Map 6. Ohio Immigrant and Refugee Population, by County

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
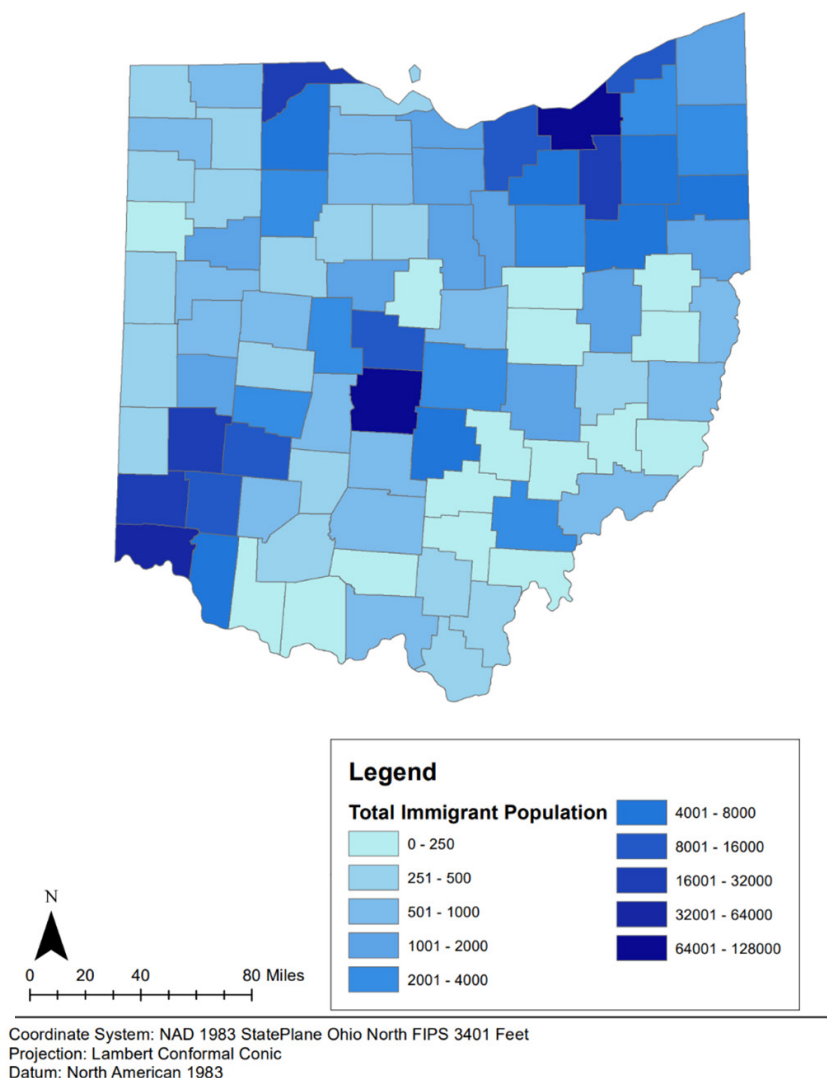
Source: *Map 6*. Ohio Immigrant and Refugee Population, by County. Adapted from "U.S. Census Bureau," J. M. Macisco, 2017, *American Community Survey*. Retrieved September 2020, from https://data.census.gov/cedsci/table?q=Populations%20and%20People&g=0400000US39&tid=ACSST1Y2019.S0101&hidePreview=false

Income and Education

Immigrants make up about 6% of the total labor force in Ohio, and work in many different sectors of the economy (American Immigration Council, 2020).

Table 7. Primary Occupation Categories of Immigrants Living in Ohio

Occupation Category	Number of immigrant workers
Production	41,927
Transportation and Material Moving	39,135
Office and Administrative Support	30,204
Healthcare Practitioners and Technical	28,692
Management	27,632

Source: *Table 7*. Primary Occupation Categories of Immigrants Living in Ohio. Adapted from "Fact Sheet: Immigrants in Ohio," by J. M. Macisco, 2020, *American Immigration Council*. Retrieved September 2020, from https://www.americanimmigrationcouncil.org/research/immigrants-ohio. 2020 by American Immigration Council. Original source: analysis of the U.S. Census Bureau's 2018 American Community Survey 1-year PUMS data by the American Immigration Council.

In 2014, immigrants in Ohio earned an estimated $15.6 billion dollars in income – about 5.2% of the total income earned by all Ohioans. $4.5 billion dollars of these wages earned by immigrants in Ohio went to state and federal taxes (New American Economy, 2016).

Immigrants in Ohio experience poverty at higher rates (17.3%) than their U.S.-born counterparts (13.7%). Poverty rates among immigrants in Ohio have grown significantly in recent decades: more than twice as many immigrants were living in poverty in 2018 as in 2000 (poverty increase by about 30% among U.S.-born Ohioans during the same period). Undocumented immigrants are twice as likely as documented immigrants to experience poverty (Migration Policy Institute, 2018).

In the aggregate, immigrants in Ohio tend to be college-educated (see Table 8). It is important to note that educational opportunities are likely not available equitably across different immigrant communities.

Table 8. Education Levels of Foreign-Born and U.S.-Born Ohio Residents

Education Level	Foreign-Born, 1st Generation, or 2nd Generation Immigrant Residents (%)	U.S. Born Residents (%)
College degree or more	42	28
Some college	19	30
High school diploma only	22	33
Less than a high school diploma	17	9

Source: *Table 8*. Education Levels of Foreign-Born and U.S.-Born Ohio Residents. Adapted from "Fact Sheet: Immigrants in Ohio," by J. M. Macisco, 2020, *American Immigration Council*. Retrieved September 2020, from https://www.americanimmigrationcouncil. org/research/immigrants-ohio. 2020 by American Immigration Council. Original source: U.S. Census Bureau, 2018 American Community Survey 1-year Estimates.

Immigration History

Indigenous peoples inhabited the land that is now Ohio as early as 15,000 years ago. Indigenous and Native American tribes in Ohio in the 1600s included the Shawnee, Delaware, Miami, Seneca-Cayuga, Chippewa, Iroquois, and Wyandot. During the 1600s and 1700s, these Native American tribes lost the vast majority of their land to war and encroaching settlers. The last Native American reservations in Ohio were dismantled in the 1840s (Ohio History Connection, 2020b).

The first immigrants to Ohio were French and British colonialists (Ohio History Connection, 2020b). A second wave of immigration in the 1800s included settlers from western Europe (e.g.: Germany, Ireland, and Italy) and eastern Europe (e.g.: Russia, Poland, and Hungary). Starting in the 1940s in the wake of World War II, Ohio experienced an increase in immigrants with Jewish ancestry (Aumann et al., 2020), as well as an increase in immigration from a greater diversity of origin countries.

Health Profile

Early research on immigration and health documented the potential negative health consequences immigrants may experience during and after immigration. More recently, researchers have documented a phenomenon describing the generally greater quality of health immigrants experience compared to their U.S.-born counterparts. This "Immigrant Health Paradox" describes the pattern that immigrants experience lower incidence of chronic conditions – both physical and mental – as well as higher life expectancy compared to U.S.-born individuals of the same racial/ethnic group (Waters & Pineau, 2015). For example, immigrants from Mexico have a lower incidence of diabetes than Mexican-Americans born in the United States (Markides & Rote, 2015). Over time, however, immigrant health profiles begin to look more similar to their U.S.-born counterparts as time spent in the United States increases. While the full picture of factors that fuel this health paradox are yet unclear, socioeconomic factors, discrimination, and acculturation are all hypothesized to influence the health status of immigrants and their U.S.-born peers, and may jointly explain the immigrant health paradox (Markides & Rote, 2015; Waters & Pineau, 2015; Viruell-Fuentes, 2007; Viruell-Fuentes, et al., 2012).

It is important to note that exceptions to this paradox do exist. Diabetes, heart disease, and cancer are frequent concerns among immigrant communities in Ohio (Columbus Office of Minority Health, 2017). Although incidence rates of most cancers are higher among U.S.-born immigrants, foreign-born immigrants do experience higher incidence of stomach and liver cancers (Singh et al., 2013). Foreign-born Black, Latino/Hispanic, and Asian/Asian Americans also have higher rates of HIV than their U.S.-born counterparts (Singh et al., 2013). In addition, younger immigrants tend to experience better health outcomes than their U.S.-born counterparts; however, as immigrants age, their health may significantly deteriorate (Jasso et al., 2004). The capacity of communities to address these challenges varies by available social, economic, and healthcare resources, cultural norms, immigration status, language proficiency, location of residence, experiences of stigma and marginalization, and poverty status.

Access to health care is a major concern for all immigrant and refugee populations. Lack of health insurance is an important impediment to access. An estimated 100,000 immigrants in Ohio are undocumented and therefore cannot enroll in Medicaid or other public health insurance programs (National Immigrant Forum, 2019). Many immigrants also report feeling uncomfortable when speaking with healthcare professionals. Researchers recommend expanding health insurance and safety nets for aging immigrants, as well as providing language services (Derose et al., 2007).

Undocumented residents also have less access to a range of other social supports than U.S. citizens and documented immigrants in Ohio. According to a 2015 study by the University of California's Global Health Institute, Ohio is the single state with the most exclusionary set of policies affecting undocumented residents. Ohio excludes undocumented families from all of the following services: health insurance for children, supplementary nutrition programs like SNAP, financial aid for education, worker's compensation, employee work authorization, driver's license assistance, and the reduction of federal law enforcement in immigrant communities. All other U.S. states provide at least one of these public health or welfare benefits to undocumented families (Rodriguez et al., 2015).

Refugees in Ohio are usually eligible to receive state assistance. For the first eight months post-resettlement, refugees may have access to cash and medical assistance programs. For the first five years, refugees may be eligible to receive a variety of social services, including language training, job services, childcare, counseling, and more. Very few services are provided beyond five years. Some refugees might also be eligible to receive assistance through federal programming; eligibility depends on many factors and is not necessarily guaranteed. Recent state policy has made additional funds available for children of refugees to access some of these services more frequently (ODJFS, 2018).

The Somali community, which comprises a large proportion of refugees in Ohio, experiences specific healthcare access barriers, including limited language fluency, lack of healthcare insurance, and cultural practices that limit engagement with U.S. healthcare providers (e.g., female circumcision)

(Banke-Thomas et al., 2019). Latino/Hispanic immigrants in Ohio also experience barriers to accessing healthcare. For example, Latino immigrants living in Cincinnati have described fear of seeking healthcare services due to discrimination and racism in the healthcare setting and, specifically, from healthcare providers (Jacquez et al., 2016). Their experiences highlight a need for more Spanish-speaking doctors, substantial cultural competency education for healthcare providers, and a pathway for insuring undocumented individuals.

Challenges Specific to COVID-19

While many immigrants are enrolled in employer-provided health insurance plans, rising unemployment in the context of COVID-19 jeopardizes this coverage. In a scenario outlined by the Migration Policy Institute, an estimated 88,000 immigrants in Ohio will lose their employer-provided healthcare during the pandemic (Capps & Gelatt, 2020). A spike in unemployment and uninsured status may lead to greater health inequities, as well as higher COVID-19 infection and mortality rates among immigrant and refugee populations. As the number of uninsured immigrants in Ohio continues to rise, it is critical that access to healthcare remains as open as possible.

Structural barriers to healthcare, including undocumented status and being uninsured, particularly affect the ability of immigrants and refugees to access affordable COVID-19 testing. Coupled with the fear of deportation, groups of immigrants and refugees – including undocumented individuals – may be less likely to seek COVID-19 testing and medical care even when needed. Fear of legal action can also influence many immigrants not to cooperate with contact tracing efforts. Left unchecked, these challenges will not only increase the spread of COVID-19 but may also exacerbate symptoms and lead to greater mortality (Ji et al., 2020).

Findings from Analysis of *Needs Assessment* Data from Respondents Representing Immigrant and Refugee Ohioans

Description of Respondents: 35 respondents representing immigrant and refugee communities in Ohio completed the *Needs Assessment* survey. This is not a general sample of immigrants and refugees, but a purposeful sample of individuals who represent organizations, agencies, and community groups that work with immigrant and refugee populations. They most commonly work in non-profit organizations. Just under half of these respondents identified as immigrants or refugees themselves; their origins were Somali, Kenyan, East African, Mauritanian, Bhutanese, and Latin American.

I. Strengths of the Community

Respondents identified a broad range of community strengths that are resources for Ohio's COVID-19 response within its immigrant and refugee communities. These included:

- Culturally-specific communities already have the capacity to organize in a culturally responsive way
- Culturally-specific community organizations are seen as advocates for the needs of the population; they have established infrastructures to deliver COVID-19 response because they are already trusted by the community
- Small, community-specific organizations fill gaps that larger organizations cannot necessarily reach
- Communities have resilience and experience living through trauma
- Communities have the ability to adapt
- These are close knit communities with community-oriented cultures
- Many health professionals exist in the community
- Faith leaders within the community are willing to help
- There are many community organizations
- Multigenerational families are common
- There is motivation and readiness to minimize the impact of COVID-19
- There is a culture of volunteerism – e.g.: women in the Lao community make home-made face masks
- Mask wearing is culturally acceptable in some immigrant and refugee populations
- Immigrants are largely healthier than the native-born population (the 'immigrant health paradox')

II. Key Barriers to Using Public Health Strategies to Minimize the Impact of COVID-19

These categories represent the most common barriers to immigrant and refugee communities using public health strategies to minimize the impact of COVID-19. These key barriers were mentioned by multiple respondents (ranging from 5 to 15), and they affect communities' ability to use multiple public health strategies. A summary of each barrier is followed by bullets which detail specific instances and problems commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

Topic A: Hygiene

Topic B: Social Distancing

Topic C: Mask-Wearing and Personal Protective Equipment (PPE)

Topic D: COVID-19 Testing

Topic E: Contract Tracing

Topic F: Isolation

Topic G: Self-Quarantining

Topic H: Healthcare Access

1. Language barriers

Several types of language barriers limit the ability of immigrants and refugees to use public health strategies to minimize the impact of COVID-19. Strategies affected by language-related barriers include use of protective hygiene, social distancing, PPE, COVID-19 testing, contact tracing, isolation, self-quarantining, and healthcare (Topics ABCDEFGH).

- Information and resources are not available in multiple languages

- Individuals may have limited English proficiency and limited English literacy

- Individuals may have limited literacy in their native language

- Interpreters and translation services are lacking in many situations

- A lack of interpretation services has led to an increase in for-profit interpreter services that are not culturally sensitive or appropriate (i.e.: translating words alone is not linguistically complete translation)

- Phone interpretation services are low quality

- Testing sites lack language/translation support

- Technology is needed to access information not in English, and may be unavailable

- Some are unable to complete forms – such as unemployment applications – due to limited English literacy

"The immigrant community in the United States today is facing the most unwelcoming environment many have ever faced in their lifetime in this country."

"Furthermore, although state and local public health agencies regularly disseminate COVID-19 public awareness information and alerts, the information is not culturally and linguistically specific enough to reach vulnerable immigrant households. Moreover, immigrant communities in general are prone to misinformation, misinterpretation of public health announcements, and scams."

"[Some community members do] not know how to read or write in any language."

"The government should have allocated money to various non-profits specifically for translating and disseminating materials and education to vulnerable communities about the virus."

2. Housing challenges

Housing conditions within immigrant and refugee communities affect the ability of members to use protective hygiene practices and social distancing, and to practice isolation and self-quarantining when needed (Topics ABFG)

- Close living quarters

- Large, extended families

- Multi-generational households

- Large households

- One bathroom per household

- Multiple people sharing a room or bed

- Substandard living conditions

- Difficulty affording housing

- No space in the home to isolate/quarantine

"A single household could be occupied by 3 to 4 families."

"Landlords [should] be asked to [give] grace for unpaid rent dues."

"[Isolation] could be a challenge in many families, as they are economically constrained so they tend to live in clusters and the availability of enough space for isolation is hard."

3. Lack of access, availability, and cost

Lack of access to needed resources stems from poverty, unaffordability of needed resources, and lack of available stock of needed resources. This barrier limits the ability of community members to use protective hygiene practices, utilize PPE and COVID-19 testing, participate in contact tracing, practice isolation and self-quarantining when necessary, and access healthcare (Topics ACDEFGH).

- Lack of access to disinfecting and hygiene products

- Lack of access to PPE

    - Expensive

    - Hard to locate

    - Limited even among workers with specific PPE needs – healthcare workers and care providers

    - Hard to get elastic to make masks

- Lack of access to clean water

- Lack of healthcare, both in general and specific to COVID-19

    - Lack of health insurance

    - No available primary care providers

"You can't find PPE at the store and it's not cheap. [Members of] my population cannot afford it if it is available."

"I think that the health centers need to do a lot to provide better services to refugee & immigrant communities. Many [members of these communities] frequently express feeling unheard by providers and disrespected by phone and reception staff. Their interpretation services are unreliable so patients get rescheduled often but aren't informed that they've been rescheduled, so they waste time and resources getting to a clinic when they don't have an appointment, etc."

"Families do not have insurance - so they can't get to doctor to get [an] order for a [COVID] test."

- Lack of access to testing

    - Most testing is available only through major health providers, to whom immigrants and refugees don't have access

    - There is a lack of testing in many other healthcare centers within minority communities

- Lack of access to phones, cell service, digital communication devices and platforms

- General financial need

    - Inability to pay rent

    - Inability to buy resources like PPE

    - Inability to stay home from work

    - Inability to cover basic needs

- Immigration status is a barrier to accessing public funds and benefits

    - Ineligible for unemployment

    - Lack of ID impedes ability to get tested

………………………………………………………………

"Immigrants are going to Emergency Rooms seeking testing because they don't know what else to do."

………………………………………………………………

"Many individuals in these populations are unable to receive public benefits or… stimulus checks and are struggling for money – their main concern is maintaining food and rent and not 'safe practices'."

4. Work-related challenges

The necessity of going to work and keeping one's job, and lack of protections at work, limit the ability of immigrants and refugees to practice protective hygiene, social distancing, participate in contact tracing, or practice isolation or self-quarantining when necessary (Topics ABEFG).

- Over-representation of immigrants & refugees as low-wage, frontline essential workers

- Many are the primary source of income for the household and cannot afford to stay home or quit work

- No alternative sources of income exist; immigrants and refugees often work multiple essential jobs

- Importance of doing what you are told to keep your job

- Inability to socially distance in caregiving jobs

- No control over employer-implemented guidelines, and to what extent employers are taking precautionary measures and protecting employees from COVID-19

- Inability of immigrants and refugees to qualify for stimulus money and unemployment benefits, and fear of losing the ability to adjust immigration status under the public charge rule if any benefits are used

"Many [immigrants and refugees] work in essential and low-level jobs (e.g.: groceries, nursing homes, home health aides, etc.) and it is hard for them to stay home."

"A number of [community] members work in nursing homes, home health, or essential services distribution centers. Some have indicated that protective [equipment] is not available in a consistent basis or [of] good quality."

"If the primary source of income is from the person that needs to isolate, that family member will not rest if they know their family does not have the means to survive with them not working."

"[Individuals] hesitate to take time away from work due to huge family income needs domestically and [in their countries] of origin."

"Many [are] undocumented and work in manual labor jobs, such as construction sites, meat packing, and processing industries [that] have a history of worker violations."

"Undocumented individuals [are] out of jobs or underemployed and have no access to government supplemental funds."

5. Insufficient and inappropriate education

This barrier encompasses lack of education about issues related to COVID-19 and self-protection, as well as a lack of culturally-appropriate educational materials. These problems limit the ability of immigrants and refugees to use all the public health strategies that can mitigate the impact of COVID-19: hygiene, social distancing, PPE, testing, contact tracing, isolation, self-quarantining, and healthcare access (Topics ABCDEFGH)

- Awareness of the severity and significance of COVID-19 is lacking

  - Refugees who have survived other communicable diseases may feel COVID-19 is unlikely to be a significant threat

- Understanding of specific protective measures is lacking:

  - How to disinfect properly

  - Why good hygiene practices are important, what they involve

  - Why social distancing is important

  - How to wear a mask properly, use PPE, keep PPE clean

  - Why PPE is important

  - Where to get tested

  - How to isolate properly within the household

  - The importance of contact tracing, even when self-quarantining

  - The danger of asymptomatic people

  - How to contact providers

  - How to use telehealth

  - Part of the problem is inconsistent policies and messaging from public leaders

- Culturally-aware and culturally-cognizant education about social distancing is lacking

- Educational materials assume too high a level of literacy and education

- Information about health and prevention is generally lacking

- Misinformation spreads because accurate information is inaccessible

"[Some] members of the community have lived years in confined refugee camps and have faced [many] communicable diseases and survived and they [feel] that they have the immunity in them…"

"Many refugees spent decades in camps and aren't familiar with [or] accustomed to hygiene practices."

"[Some] individuals in self-quarantine are still getting out and doing their regular chores, thinking that putting [on a] mask is enough, so… intensive educational and awareness is… very important."

"Policies are not clear to most of this community since they are hearing it from second and third[-hand] sources. This creates disconnect and lack of understanding of Governor's orders, recommendations, benefits and support, etc."

6. Lack of personal transportation

This barrier limits the ability of members of these communities to practice social distancing, use PPE, get testing, and access healthcare (Topics BCDH).

- There is no accessible COVID-safe transportation

- Drive-through testing isn't usable without a car

"Refugees and immigrants carpool for everything due to lack to transportation resources."

7. Stigma, fear, and mental health challenges

Mental health concerns, as well as stigma and fear, are triggered by COVID-19. This impedes the ability of community members to practice protective hygiene or social distancing, use COVID-19 testing or contact tracing, isolate when needed, and access healthcare (Topics ABDEFH).

- Many have a history of trauma

    - Fear of isolation

    - Fear of dying alone

- Significant unmet mental health needs exist in these populations

- Mask-wearing can trigger trauma

- Some are afraid to leave the home

- Social distancing is challenging for mental health, particularly for refugees

- Some fear getting in trouble for not social distancing

- Some fear contamination

- There is fear and stigma around testing, COVID-19

- There is a stigma surrounding mental health services

- Many COVID-19 survivors may face traumatic stress in the aftermath of local outbreaks

"With this population, you need to understand their own experiences in a 'crisis' supersede what the CDC is asking them to do. They have experienced real trauma and this doesn't appear to be a war or threat to them. It is invisible. No blockades, no gunfire, no electricity turning off. It seems made up of American panic."

"Refugee trauma may make it more difficult to isolate from the few family/ community you have contact with."

"[Individuals] fear that going to a hospital for a test might cause one to contract the disease."

8. Mistrust of government and healthcare systems

This barrier impedes use of COVID-19 protective advice in general, use of testing and healthcare, use of contact tracing and isolation (Topics ADEFH).

- Mistrust of the healthcare system given its history with Black people

- Miscommunication/misinformation about testing from/about healthcare providers and facilities

- Mistrust of modern medicine

- Fear of infection at healthcare facilities

- Lack of racial and ethnic diversity among healthcare providers

- Limited information sharing due to a mistrust of government authorities

- Concerns about immigration status

  - Fear of exposure to law enforcement or ICE/immigration authorities through testing or contact tracing, or reporting concerns or symptoms

  - Fear of getting other families in trouble

"[There is] some distrust of the healthcare system because of the medical establishment's history of mistreating African Americans."

"A well-educated family that has no language issue could [not] access their mother for over a month after she was admitted to one of the hospitals; they were not consulted about her treatment and at some point they were told she was dead. However, when they came to the hospital they were told it was a mistake and she was alive."

"[Some are] afraid to report due to fear of ICE."

9. Cultural and religious norms and practices

Cultural and religious norms and practices important to immigrant and refugee communities also constitute barriers to protective strategies including hygiene, social distancing, PPE, contact tracing, isolation, self-quarantining, and healthcare (Topics ABCEFGH).

- Cultural norms and religious practices that require gathering and proximity

  - Physical touch to greet, human touch as a cultural value

  - Cultural norms of gatherings

  - Physical proximity norms

    - Within the family

    - At ethnic stores

  - Social norms of members of the same sex gathering

  - Mourning and visiting the sick

  - Prayer times and requirements

- Cultural norms of family proximity to each other within the household

- Lack of culturally accommodating healthcare providers

- Challenges of making PPE compatible with traditional cultural/religious garb

- Social and cultural barriers preventing men from wearing PPE

  - Gender barriers

  - Men may not answer to women

- Women may be expected to continue culturally gender defined role – i.e., 'duties'

- Lack of availability for contact tracing phone calls due to spiritual practices

- Fear of testing

  - Being ostracized by family, community shaming

  - Fear of isolation

"How [can] communities that are communal rather than individualistic [be] expected to social isolate? How do they feel connected while social isolating?"

"Have [testing] hours available for a wide range [of times]. Muslims pray several times a day."

"This is a serious issue. Families will not leave each other, only to go to the hospital."

"Family roles [may be a barrier] – in several cultures, women are expected to continue with their 'duties'."

Other Barriers

These additional barriers represent separate issues reported by multiple respondents, but not as frequently as the 9 key barriers described above.

- Topic B – Social Distancing

    - Caregiving responsibilities (particularly for children, but also for seniors) impede social distancing

- Topics A & C – Hygiene & PPE

    - Challenges of wearing masks

        - Particularly for Black immigrants

        - Among those with disabilities and in hot weather

"People of color are perceived as 'dangerous' and 'untrustworthy' among other derogatory terms. Wearing a mask may be [a cause] of concern for personal safety."

"[For some it is a problem to be] not able to see [a] person's mouth (i.e., lip read). [This] may be triggered by masks. [Individuals] may have significant mental and emotional disabilities that might [make it] challenging to follow [these rules]."

III. Key Ideas (Solutions) to Address Barriers and Minimize the Impact of COVID-19

These categories represent the most common solutions suggested to help immigrant and refugee communities use public health strategies to minimize the impact of COVID-19. These key ideas were mentioned by multiple respondents (ranging from 5 to 15) and would facilitate communities' ability to use multiple public health strategies. A summary of each proposed solution is followed by bullets that list details and specifics commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

1. Provide multilingual information and support

This would improve the ability of immigrants and refugees to use all recommended measures to minimize the impact of COVID-19, including protective hygiene, social distancing, use of PPE, testing, contact tracing, isolation and self-quarantining when needed, and using healthcare (Topics ABCDEFGH).

- Provide long-term English education
- Promptly translate updates from the Governor's office
- Create visual aids
- Make quality face-to-face interpretation and translation more widely available

"Translate materials – [in both] written and verbal [forms] – as many refugees are illiterate."

"[For members of these communities, use] proper interpreter[s] who understand their cultural background. Someone who can relate to them and educate them properly."

- Create educational materials in multiple native languages of our immigrant and refugee groups

  - PSA (public service announcement) videos and commercials

  - Social media content

  - Mailed information

- Create more multilingual testing sites, hire contact tracers who can work in languages other than English

"Ensure that all service providers are providing multilingual access to information in various mediums (e.g.: written; audio-visual)."

"Provide workshops or webinar presentations, as well as distribution of information thru Spanish media outlets… Also distribute to organizations like LULAC, OCHLA, PACO, local churches, schools, public libraries, and community virtual festivals or current community 'safe' gathering events and essential worker worksites."

2. Create housing options

Housing support and options would help improve use of hygiene, social distancing, isolation, and self-quarantining (Topics ABFG).

- Offer alternative housing for infected individuals who need to isolate or self-quarantine

  - Empty apartment complexes, hotels

  - Safe, stable housing

- Create more feasible guidelines on isolation in close quarters

  - Allow a family member to isolate with the infected individual

  - Provide PPE/sanitation supplies for isolating household members

"Create communal social isolation/ quarantine centers where people can be provided with basics like food if necessary. This is likely to work best in COVID-19 hotspots."

"Suggest ways to isolate sick members of [the] family within homes where multiple people live."

3. Create more, varied, culturally-appropriate educational materials

This approach will improve the ability of community members to practice protective hygiene and social distancing; use PPE, testing, and contact tracing; isolate when needed, and access healthcare (Topics ABCDEFH).

- Culturally-cognizant education should be developed and continuously shared, about:

  - Severity of COVID-19

  - Basic hygiene

  - Where to get resources

  - How to care for sick family members safely

  - Why PPE is important, how to obtain and use it

  - Dispelling false information, misinformation

  - Significance of testing

  - Importance and methods for isolation, self-quarantining

  - How accessing COVID-19 support will (not) affect immigration cases

  - How to communicate with doctors

  - Mental health and drug abuse issues

  - Addressing stigma

- Make sure education is culturally appropriate

  - Be sensitive to contradictory teachings from religious leaders

- Provide culturally responsive training for intake and healthcare personnel

- Make sure interpreters and translators are culturally aware

> *"[Offer] explanation of what [each protective] process is and why it is being done."*

> *"[Provide] education to the family as to why it is important to stay away from the infected person."*

> *"Allow…a family member to 'be in the room' with the client via Facetime, Skyping, etc."*

> *"As much as possible, [hire] enough minority doctors and nurses to do the tests."*

4. Actively involve community and religious groups

Local community leaders can help with distribution of information and supplies, and facilitate community access that will allow immigrants and refugees to make better use of all recommended public health strategies to minimize the impact of COVID-19. These strategies include protective hygiene, social distancing, use of PPE, testing, contact tracing, isolation and self-quarantining when needed, and using healthcare (Topics ABCDEFGH).

- Community organizations and religious organizations within and connected to immigrant and refugee communities should be utilized as key partners

- Trusted individual community members – who come from/look like the communities they serve – can provide critical linkages between communities, information, and resources. This can include:

  - Community leaders
  - Religious leaders
  - Youth in the community

- These individuals and organizations can:

  - Disseminate information
  - Disseminate supplies
  - Contribute to decision-making
  - Conduct outreach and education
  - Model protective behaviors
  - Help shape policy geared toward these communities
  - Conduct testing and contact tracing
  - Bring providers to the community
  - Share stories from community members who have successfully used services

"There should be a partnership with community organizations that already have a trusted relationship with community members."

"[An] introduction from a respected community member reduces suspicion of the source of information."

"Educate the community through some community ambassadors."

"Use churches and mosques as points of contact."

"Include younger residents as influencers capable of disseminating information."

"Trust is a major factor in getting information disseminated. My suggestion is a centralized approach to information from a trusted source."

"[Establish] distribution sites at local Hispanic/Latino and other immigrant groups' market places and businesses."

5. Provide supplies and resources directly

This solution involves direct provision of supplies, resources, and services within communities. This would help immigrant and refugee communities better utilize hygiene, social distancing, PPE, testing, isolation, self-quarantining, and healthcare (Topics ABCDFGH).

- Use community sites to distribute cleaning and hygiene supplies, PPE

- Increase accessibility of PPE through nonprofits, workplaces, schools, local stores, public health departments

- Increase testing accessibility in neighborhood and community sites, using already-frequented organizations and facilities

  - Increase daily testing window to accommodate religious needs

  - Remove requirement for a physician's order to be tested

  - Reduce testing cost or make it free

- Provide direct financial support

  - Improve accessibility of public assistance, unemployment, stimulus checks

  - Cash assistance

- Provide for basic needs

  - Food

  - Grace for unpaid rent

- Provide access to phones, technology

"People that cannot qualify for unemployment need local financial help from the city to be able to pay rent and bills."

"[Create] public policy to ensure [that] during COVID recovery and during pandemic closure all housing occupants have access to clean water and utilities to maintain a healthy living environment, as well as incarcerated populations and staff regardless of immigration status."

6. Improve access to healthcare and social services

This intervention would help improve use of hygiene, social distancing, testing, isolation, self-quarantining, and healthcare (Topics ABDFGH).

- Fund community nonprofits and social services

- Supply emotional and mental health support for those in isolation

- Provide assistance for those who are sick

- Provide alternative care for children and seniors

- Conduct active outreach

- Increase telehealth accessibility

- Re-open in-person healthcare providers

- Educate healthcare providers on how to provide services and outreach

"[Provide individuals] with emotional support while in isolation."

"[Members of this community] would normally go to the hospital, [but are] now just not going [for care] at all."

"This population is very much used to this system. [E]specially those with under[lying] conditions feel comfortable seeing their providers in person. Therefore they feel [telehealth] is just a phone call and do not really take that as their real appointment."

Other Ideas

These additional ideas represent separate potential solutions reported by multiple respondents, but not as frequently as the 6 key ideas described above.

- Topics D & H – Testing & Healthcare Access

    - Provide transportation

- Topics A & B – Hygiene & Social Distancing

    - Pursue policies and initiatives to improve workers' rights and safety

- Topic D & E – Testing & Contact Tracing

    - Reduce worries about law enforcement by emphasizing confidentiality and distance from police and ICE/immigration authorities

        - Train law enforcement to reduce hostility

        - Allow for testing without identification

IV. Trusted Community Resources and Linkages

Respondents identified a long list of varied and trusted community resources: healthcare organizations (including clinics and hospitals), churches, non-profit organizations, refugee organizations, and charities.

Final Recommendations to Minimize the Impact of COVID-19 on Immigrant and Refugee Populations in Ohio

These recommendations reflect the data provided by respondents representing immigrant and refugee communities as well as additional context and insight provided by our panel of expert researchers, public leaders, and practitioners with expertise focused on immigrant and refugee communities.

1. **Center the COVID-19 response in the organizations and cultures of local communities, implementing public health activity through partnerships with trusted community groups, empowering local organizations to lead this work, and providing them with resources to do so.**

Immediate, COVID-19 specific, recommendations:

Mobilize ethnic and religious organizations trusted by the community to guide and execute all aspects of the COVID-19 response, including: creating educational material; disseminating information; distributing cleaning supplies, masks and PPE; testing; contact tracing; and facilitating isolation & self-quarantine arrangements.

Provide grant dollars to community-based organizations, led by immigrant and refugee leaders, to guide the COVID-19 response and recovery in culturally responsive ways.

Foster multi-sectoral support for a holistic COVID-19 response, by assuring that community leaders and community-based organizations are networked with community health organizations, local public health, faith-based organizations, business, and social service organizations.

Empower community leaders to model protective behaviors and communicate the importance of social distancing, hygiene, and participating in testing/contact tracing/isolation to their communities.

Train community health workers to actively connect community members to resources.

Employ highly trusted members of the community, or trusted individuals who already serve the community through immigrant and refugee resettlement organizations, to work as contact tracers.

Immediate recommendations to improve the health of communities:

Include community-based leaders in the committees and organizations that shape policies affecting these communities.

2. Explicitly address economic injustice and its widespread health and social impacts by directly improving access to resources to support disease prevention, COVID-19 response, and necessities of daily living.

Immediate, COVID-19 specific, recommendations:

Facilitate ready access to masks, disinfecting/cleaning supplies, and other essential supplies.

- Provide low-income communities with free or low-cost resources to deal with the pandemic, including cleaning and hygiene supplies, masks, and PPE.

- Distribute supplies through trusted community leaders, organizations, and sites.

- Utilize non-profits, workplaces, schools, local stores, and public health departments to increase accessibility of PPE.

- Provide basic supplies, cleaning supplies, and PPE for individuals and caregivers who are isolating or self-quarantining.

- Develop and distribute alternate protective methods for individuals who work in outdoor labor and other conditions that make standard PPE difficult to use.

Increase testing accessibility in neighborhood and community sites, using already-frequented organizations and facilities.

- Increase daily testing window to accommodate religious needs.

- Remove requirement for a physician's order to be tested.

- Reduce testing cost or make it free.

Provide social supports to facilitate isolating and self-quarantining when needed.

- Provide food, medicine, and other resources directly to places where individuals are self-quarantining or isolating.

- Provide emotional support to individuals who are isolating or self-quarantining.

- Set up these services as part of the contact tracing process and provide daily check-ins.

- Provide alternative arrangements for children and elderly individuals when their caregiver is isolating or self-quarantining.

Improve healthcare access to ensure that those who test positive can be effectively linked to ongoing and culturally-appropriate care. [1]

- Provide funding for free clinics serving culturally-specific groups.

- Ensure that translation/interpretation services are provided in clinics.

- Ensure that provision of healthcare has no repercussions for immigration processes. [2]

- Ensure that female providers are available to provide all aspects of testing or medical care to female clients when preferred.

- Re-open in-person healthcare providers, because face-to-face care is often preferred.

- Extend and improve telehealth services, including increased access to WiFi, translation services, and culturally sensitive providers.

Improve the accessibility of public assistance, cash assistance, unemployment, and stimulus checks.

Provide widespread access to Internet services and cell phones.

1. Migration Policy Institute, 2020.

2. Capps & Gelatt, 2020.

Immediate recommendations to improve the health of communities:

Provide supplemental supports to cover basic needs, including food and medicine.

Create a grace period for unpaid rent.

Recommendations to create a social context for long-term health and wellness:

Ensure that all people, regardless of immigration status, have continuous access to quality healthcare – including physical healthcare, mental healthcare, and substance use treatment.

3. Directly address the impacts of historical racism and immigration-related fears through policy change and ongoing training; create strong separation between health-related institutions and immigration authorities.

Immediate, COVID-19 specific, recommendations:

Put processes in place to ensure that personal information gathered through testing, contact tracing, or any resource distribution is not transferred to U.S. Immigration & Customs Enforcement (ICE)/U.S. Citizen & Immigration Services (USCIS)/immigration courts. [1]

Ensure that ICE is disconnected from COVID-19 interventions such as testing and contact tracing, and from the use of healthcare.

Allow for COVID-19 testing without providing identification.

Ensure that individuals who access COVID-19 testing and/or healthcare are not subject to future penalties under the public charge rule. [2]

Allow a trusted family member to assist or accompany individuals who need to isolate or self-quarantine, to address cultural concerns and mistrust of government.

Immediate recommendations to improve the health of communities:

Provide all healthcare providers with mandatory, ongoing implicit bias training, as well as training in providing appropriate interpretation services to patients.

Recommendations to create a social context for long-term health and wellness:

Proactively recruit and train ethnic and racial minorities to work in all sectors of the medical field.

Formally separate immigration status from utilization of healthcare.

1. For an example, see California's process and reassurance that contact tracing processes do not entail risk of contact with immigration authorities, at: https://covid19.ca.gov/contact-tracing/

2. For details on the public charge rule and how it can impact immigration status adjustments, see U.S. Citizenship and Immigration Services (2020). The most stringent aspects of the public charge rule are under injunction due to COVID-19, but the extent to which this reassures immigrants is unclear and likely varies.

4. **Improve and enforce employment policies to reduce the spread of COVID-19 in workplaces and protect businesses and workers coping with the impacts of the pandemic.**

Immediate, COVID-19 specific, recommendations:

Require employers to use best practices for minimizing the spread of COVID-19 - including providing masks, PPE, and hygiene supplies to employees - and develop an enforcement structure for these requirements.[1]

Implement unemployment compensation or direct financial supports to immigrants who have experienced job loss and have not been able to benefit from CARES Act funding. [2]

Improve workers' understanding of their rights, safety, and sick leave policies.

Supplement the capacity of local health departments to enforce public guidelines.

1 Gelatt, 2020.

2 Capps et al., 2020

5. **Reduce the substantial COVID-19 transmission risks associated with dense living conditions by increasing access to affordable housing, alleviating crowding in congregate situations, and creating new options for isolation and self-quarantine.**

Immediate, COVID-19 specific, recommendations:

Create free, community-specific housing options for those who need to self-quarantine and isolate. Utilize hotel rooms, empty apartments.

Create feasible guidelines for isolation in close quarters. Provide partitions and mats for those who cannot fully isolate or self-quarantine because they are living in cramped quarters or sharing beds.

For multigenerational families, provide alternative care options for children and seniors to allow caregivers to quarantine or isolate.

Provide rental assistance, and work with landlords to allow families a discount or extra time to make payments for rent.

Identify and work with predatory landlords of apartment complexes/camps where immigrant and refugee communities live, to assure basic standards required by city codes are maintained.

Recommendations to create a social context for long-term health and wellness:

Increase availability of stable, safe, affordable housing to reduce dense living conditions.

6. Improve access to COVID-safe, affordable transportation.

Immediate, COVID-19 specific, recommendations:

Provide funding for socially distanced transportation options from locations where immigrants and refugees live to specific places of employment and healthcare facilities.

7. Increase and improve the dissemination of high-quality, multilingual, culturally connected, COVID-related education throughout communities.

Immediate, COVID-19 specific, recommendations:

Create varied, culturally appropriate educational materials that use simple terms to communicate in multiple languages, and contain many visual aids.

Feature community members in videos, enacting COVID-19 prevention behaviors while also featuring cultural practices (e.g.: family meals) that are valued in settings familiar to people (e.g.: living spaces). Use storytelling to show that public health practices are not incompatible with cultural values and norms.

Equip local leaders to communicate with their own communities, stressing the importance of social distancing, mask wearing, hygiene, testing, contact tracing, and isolation.

Distribute educational information and campaigns through local, trusted community organizations (e.g.: resettlement organizations , churches/mosques) and WhatsApp/Viber/Facebook.

Take account of information and misinformation from immigrants' countries of origin, as well as guidance from religious leaders, that is relevant to uptake of public health interventions.

Design communication strategies that will be effective by ensuring that they:

- Provide accurate information to immigrants about eligibility for various programs/interventions

- Defuse concerns about potential immigration consequences of seeking coverage or care
- Encourage individuals to seek care at early stages when symptoms are milder and thus less costly to treat. [1]

Develop culturally-relevant educational materials that cover a broad range of COVID-related topics, including: severity of COVID-19; where to obtain supplies and resources; how to sanitize a home; why PPE is important and how to obtain and use it; when, where, and how to get a COVID-19 test; importance of isolation and quarantine; when and how to isolate or self-quarantine; how to care for sick family members safely; how to communicate with healthcare providers; accurate information to dispel false information and misinformation.

Directly communicate the message that accessing COVID-19 support will not affect immigration cases.

Provide training for all healthcare providers and a wide range of health and social service staff serving immigrant and refugee communities, about how to provide culturally-responsive services and outreach to these communities.

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1 Capps & Gelatt, 2020.

Immediate recommendations to improve the health of communities:

Provide information about mental health challenges, drug abuse issues, stigma, and how to accesses services relevant to these topics.

8. Provide services and hire multilingual workers to resolve language barriers.

Immediate, COVID-19 specific, recommendations:

Create educational materials in multiple languages (and multiple dialects) spoken by local communities, using multiple modes of delivery including social media content, written information for flyers or mailers, PSA (public service announcement) videos and commercials.

Utilize visual aids in all educational materials to ensure clear communication regardless of literacy level.

Ensure that updates and guidance from the Governor's office and public health leaders are promptly translated into multiple languages.

Hire contact tracers, testers, and support staff at these sites who can work in many relevant languages

Immediate recommendations to improve the health of communities:

Ensure that high-quality face-to-face translation and telephonic or online interpretation services are widely available in healthcare and social service settings.

Educate interpreters and translators to ensure that they can operate in culturally-appropriate ways.

Recommendations to create a social context for long-term health and wellness:

Increase the number of healthcare workers who speak multiple languages and can work at least partially in the languages spoken by all local communities.

Create documents explaining common healthcare recommendations in many languages spoken by immigrant and refugee communities, and make these widely available to healthcare providers in all settings and in community organizations.

Provide long-term English education for individuals and families new to the U.S.

Findings and Recommendations for *Needs Assessment* Populations

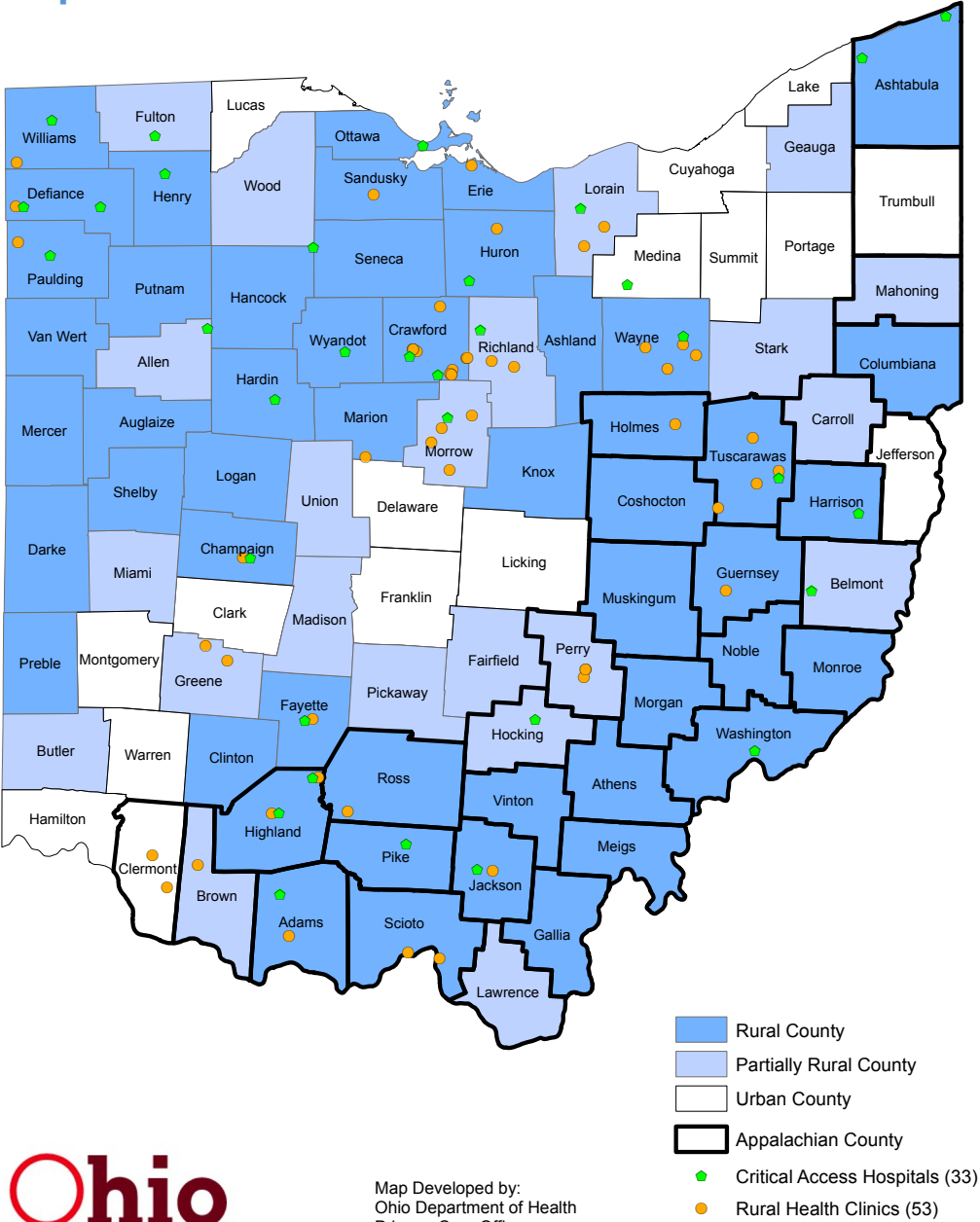# Rural Communities in Ohio

Background

Terminology

Needs Assessment key populations are identified throughout this document using the terminology preferred by respondents. This section focuses on those who identified themselves as representing rural populations in Ohio.

The definition of a rural area differs across agencies and institutions. The U.S. Census Bureau definition identifies an urban area as having a population of 50,000 or more, and geographic areas with fewer than 50,000 people to be rural. This definition is also used by the Centers for Medicare and Medicaid Services and Ohio's State Office of Rural Health (SORH). According to SORH, most counties in Ohio are rural or partially rural (see Map 7).

Appalachian Ohio is a specific geographic region in the southeastern part of the state. The area comprises the western foothills of the Appalachian Mountains and the Appalachian Plateau, and includes 32 counties, of which 29 are rural or partially rural.

Primarily defined by population size and density, rural populations are not homogenous. Ohio's rural geographic areas encompass many subpopulations, including those living in Appalachia, Amish communities, incarcerated persons, and migrant workers. This report therefore considers rural populations through an intersectional lens that considers both identity and place.

Map 7. Ohio's Rural and Urban Counties

Legend:
- Rural County
- Partially Rural County
- Urban County
- Appalachian County
- Critical Access Hospitals (33)
- Rural Health Clinics (53)

Map Developed by:
Ohio Department of Health
Primary Care Office
March, 2019

Ohio Department of Health

Source: *Map 7*. Ohio's Rural and Urban Counties. Original source document: Ohio Department of Health Primary Care Office, *Ohio Department of Health* via personal communication.

Population

Rural Ohio is majority White. The Ohio Appalachian population is more than 90% White (as well as 4.3% Black, 2.2% Hispanic/Latino, and 2.7% Other non-Hispanic), and has seen only a 1.1 increase in racial minority populations since 2010 (Pollard & Jacobsen, 2020). Only two rural or partially rural Ohio counties have 10% or more Black residents, and no county in Ohio has more than 10% Hispanic population (Rural Health Information Hub, 2020a). A larger proportion of Hispanic individuals reside in Northeastern rural counties and work as migrant farm laborers. Individuals from Mexico, El Salvador, and Guatemala work in U.S. agriculture through the H-2A program, and Ohio's migrant workers are most concentrated in Sandusky and Ottawa counties (Carson, 2020).

Appalachian Ohio has a population of over 1.9 million, or 17% of Ohio's residents (Pollard & Jacobsen 2020). The region's population has decreased 2.4% since 2010. The region's residents are also somewhat older than average overall: 19.1% of Appalachian Ohioans are 65 or older (compared to 16.7% of the rest of the state), and the median age in Appalachia is 42.0 years old (compared to 38.9 years in the rest of the state) (Pollard & Jacobsen, 2020). This somewhat older population raises the risk of disproportionate negative COVID-19 outcomes in Appalachian Ohio, since older adults are at greater risk of serious illness or death if infected.

As of 2018, approximately 35,850 Amish individuals resided in Holmes County – a rural and Appalachian county – and 19,055 Amish individuals lived in partially rural Geauga County (Young Center for Anabaptist and Pietist Studies, 2019). Holmes County is a popular tourist destination also known as "Amish Country." Amish cultural practices include finishing schooling at the end of 8th grade, which may contribute to low health literacy (Katz et al., 2013). Additionally, traditional Amish lifestyles prohibit certain electronic technologies, which may decrease access to timely COVID-related health information. Efforts to prevent and contain COVID-19 in Ohio Amish communities must consider these culturally specific challenges.
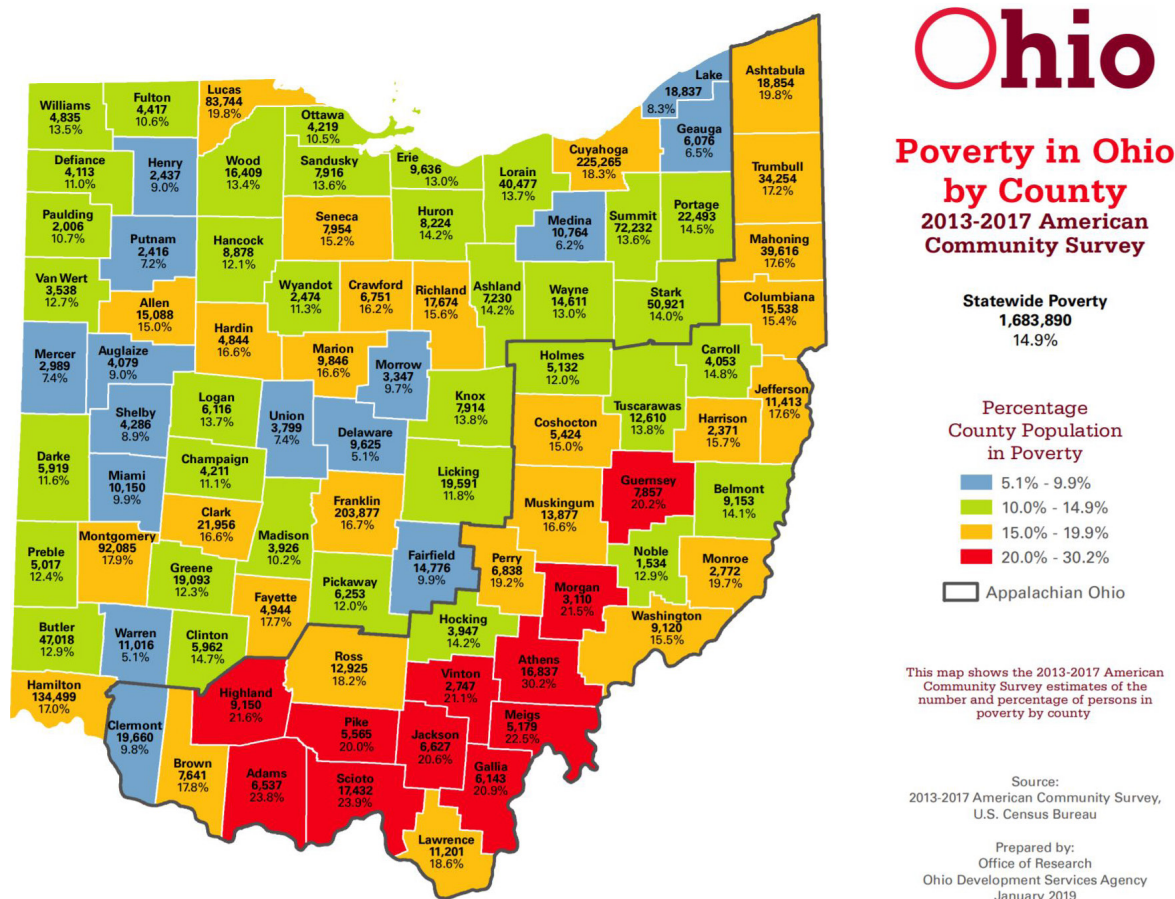
Education and Income

Rural Ohio populations are challenged by lower levels of education and employment than urban residents. In rural Ohio, 12.2% of residents have not completed high school and 43% ended their education with only a high school diploma (versus 9.3% and 30.8%, respectively, of their urban peers); 16.9% of rural Ohioans have finished college (versus 30.6% of their urban peers) (USDA ERS, 2020). Unemployment rates vary widely across rural Ohio.

In May 2020, unemployment in rural non-Appalachian Ohio counties averaged 12.9%, ranging from a low of 9.0% in Mercer county to a high of 19.9% in Erie County (ODJFS, 2020). The unemployment rate in Appalachian Ohio was 12.4% in May 2020 (compared to the five-year average unemployment rate in that region of 17.2%) (Larrick, 2019; ODJFS, 2020).

Poverty rates are considerably higher in rural Ohio than other parts of the state; this is particularly problematic in Appalachia, where 20-30% of residents live in poverty in 11 of 32 counties (see Map 8). The four poorest counties in Ohio are all Appalachian (Athens, Scioto, Adams, and Meigs), and five Appalachian counties are designated as "distressed": in the bottom 10% of all US counties economically (Larrick, 2019; Pollard & Jacobsen, 2020).

Map 8. Poverty in Ohio, by County

Source: *Map 8*. Poverty in Ohio by County. Adapted from American Community Survey by Office of Research Ohio Development Services Agency, 2019, *Ohio Development Services Agency.* Retrieved July 2020, from https://www.development.ohio.gov/files/research/P7005.pdf

Settlement and Economic History

Native Americans lived throughout Ohio until German and Irish immigrants arrived in the area. As early as 1785, European immigrants began building canals and railroads to expand the American frontier (Ohio Development Services Agency, 2019c). Native American populations were displaced from Ohio as immigrant groups settled along the Ohio River region and gradually rural – and specifically Appalachian – Ohio came to rely on the coal and steel industries. As these industries closed or left the region, Appalachian and rural Ohio was faced with poverty and economic decline. Farming was a staple of rural Ohioan incomes until the early 1900s, when the focus of the economy shifted to urban industries. World War I and II brought moments of economic prosperity for Ohio farmers, but as the wars ended farm machinery became more expensive and farm workers left for urban careers. These factors generated the need for low-cost labor found in the form of migrant farm workers (Ohio History Connection, 2020c).

The Appalachian Redevelopment Act of 1965 created the Appalachian Regional Commission, which works to strengthen economic development in Appalachia (Appalachian Regional Commission, 2015). A once economically flourishing region for its natural resources (i.e., coal, timber, iron) is now one of the poorest areas in Ohio.

Health Profile

Appalachian residents have lower life expectancies than non-Appalachian residents and, as of 2013, all-cause mortality was 18% higher in Appalachia than the rest of the U.S. (Singh et al., 2017). Appalachian Ohioans experience high rates of several key risk factors for chronic disease, including tobacco use, sedentary lifestyles, lack of access to nutritious food, and risky sexual behaviors. Chronic obstructive pulmonary disease (COPD) mortality rates are 35% higher in Appalachian Ohio than in the general U.S. population, and 15% higher than in non-Appalachian Ohio (Marshall et al., 2017). In addition, rural and Appalachian Ohioans are more likely to die from chronic health problems that increase morbidity and mortality risks associated with COVID-19 (Erwin et al., 2020).

Mental health is a substantial concern in rural areas as well. The rate of mental health problems – including anxiety and depression – is 17% higher among Appalachian Ohioans than among Americans overall, and 5% higher than among non-Appalachian Ohioans. Suicide rates in Appalachian Ohio are also 26% higher than in non-Appalachian Ohio (Marshall et al., 2017).

Healthcare availability and access are challenges for many rural Ohioans. Inability to afford healthcare is a significant barrier: 37% of rural U.S. residents report needing to delay healthcare, mainly due to cost (Washington Post/Kaiser Family Foundation, 2017). Other barriers limit healthcare usage as well. While 17% of US population lived in rural areas as of 2010, only 9% of doctors practiced in rural areas (Bolin et al., 2015). Rural residents often have to travel long distances to access health care, which is made more challenging by limited public transportation. They are also less able to utilize telehealth due to insufficient Internet access (Douthit, 2015).

In recent decades, rural Ohio counties have been challenged by multiple, overlapping health crises, including mass incarceration, the opioid epidemic, food deserts and food swamps, and intimate partner violence (Dumont et al., 2012; Erwin et al., 2020; Mulangu & Clark, 2012; Ohio Department of Health, 2018c). The opioid epidemic has particularly ravaged rural Ohio. While unintentional drug overdose deaths have generally been decreasing in Ohio, overdose deaths have increased in 16 of the state's most rural counties (Ohio Department of Health, 2018c).

Challenges Specific to COVID-19

COVID-19 may exacerbate health disparities for vulnerable rural populations. Early studies indicate that 46% of Ohio's small rural counties have high COVID-19 mortality risk, compared to 18% of urban and large rural counties (Rhubart et al, 2020). These risk differences are driven by the high prevalence of older adults in rural Ohio counties and high rates of chronic health conditions (e.g.: obesity, diabetes, heart disease) that may complicate COVID-19 treatment and recovery. Most Ohio prisons are also located in rural or partially rural counties, which may affect COVID-19 prevalence rates. Marion Correctional Institute and Pickaway Correctional Institute made headlines after 73% of incarcerated individuals tested positive for COVID-19 cases, and prison staff return home to rural communities (Chappell & Pfleger, 2020; Raphling 2020).

Culture

Rural populations have traditionally distrusted government policies and interventions. Historical and contemporary experiences of poverty and weak economic recovery have contributed to a culture that relies heavily on local networks and communities for support rather than government. Many rural residents also rely on their Christian – and often evangelical – faith to cope with economic stresses and structural inequities. Compared to those living in urban areas, rural residents are more likely to report that where they live is a good place to raise children and that people look out for each other (Washington Post/Kaiser Family Foundation 2017).

Findings from Analysis of *Needs Assessment* Data from Respondents Representing Rural Ohioans

Description of Respondents:

129 respondents representing rural communities in Ohio completed the *Needs Assessment* survey; many identify themselves as members of rural communities. This is not a general sample of rural Ohioans, but a purposeful sample of individuals who represent organizations, agencies, and community groups that work with rural populations. The largest group of respondents identify themselves as female, middle-class healthcare professionals. Respondents work in healthcare settings, public health departments, and non-profit organizations.

Description of Communities:

Respondents describe their communities as rural small towns and/or villages comprised of predominantly White people, many of whom are unemployed, have low incomes, and have low levels of education. Others describe their areas as Appalachian, immigrant Latino, Amish, agricultural/manufacturing communities, areas where there is only one hospital and many people travel out of the county to go to work, and areas with no public transit. Respondents describe the largest industries in their regions as agriculture, healthcare, communications, tourism, food service, and retail. In these areas, respondents describe that there are high co-morbidities, poor access to transportation, poor access to healthy food, as well as a large number of elderly people caring for grandchildren. Local healthcare is limited, and health services may require a minimum 30-minute travel time. Access issues described include socio-economic barriers, behavioral health issues and a substantial burden of chronic disease described as congestive heart failure, chronic obstructive pulmonary disease, cancer, and diabetes. In these areas, many people live at or below the federal poverty level, and substantial portions of local counties are federally designated health professional shortage areas for primary care, with only parts of the population being served.

I. Strengths of the Community

Respondents identified a broad range of community strengths that should be used as part of the COVID-19 response within rural communities. These include:

- Dependable & hard-working
- Community organizations work very well together
- Tradition of assisting others in the community, desire to work together and protect each other
- Strong community relationships
- Agencies understand the community, team approach to care
- Resilience
- Good communication
- Honesty, integrity
- Use of pharmacies to provide information about community and medical resources
- Family and social cohesion

II. Key Barriers to Using Public Health Strategies to Minimize the Impact of COVID-19

These categories represent the barriers that most commonly challenge the ability of rural Ohioans to use public health strategies to minimize the impact of COVID-19. These key barriers were mentioned by multiple respondents (ranging from 5 to >30), and they affect communities' ability to use multiple public health strategies. A summary of each barrier is followed by bullets which detail specific instances and problems commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

Topic A: Hygiene

Topic B: Social Distancing

Topic C: Mask-Wearing and
Personal Protective Equipment (PPE)

Topic D: COVID-19 Testing

Topic E: Contract Tracing

Topic F: Isolation

Topic G: Self-Quarantining

Topic H: Healthcare Access

1. Lack of access, availability, and cost

This barrier limits the ability of community members to use most public health strategies to minimize the impact of COVID-19, including protective hygiene, social distancing, PPE, COVID-19 testing, isolation, self-quarantining, and healthcare (Topics ABCDFGH).

- Community members lack access to cleaning and hygiene supplies, grocery stores, PPE, and clean water.

- Needed items aren't available locally, or cost too much

- Supplies can't be purchased with food stamps

- Few opportunities exist to shop for needed items

- There is a shortage of healthcare providers – in general, nurses, mental health providers

- Healthcare that does exist may be inaccessible due to overbooking

- Safety net providers in rural areas may be primary care providers and free clinics not associated with Federally Qualified Health Centers (FQHCs) so they don't receive federal funding

- Telehealth services may not be offered or may not be accessible due to lack of technology, cellular coverage, and Internet connectivity

- There is a cultural preference for face-to-face visits with clinical providers

"Social distancing is not as difficult in rural areas. Having masks, sanitizer, or gloves is more difficult when going to a rural store."

"In living situations without running water washing hands is impossible."

"The other issue became cost. The cost of some items rose significantly during this pandemic, which is wrong."

"There are no sewing stores in the county so it would be hard for [people] to make their own face coverings. Organizations in the county have just started to donate face coverings."

"We live in a rural setting where access to healthcare is a challenge during normal times. Patients who live in rural areas are sicker, poorer, and at times lack the means to get to those services."

- Healthcare and mental health services have closed due to COVID-19

- Providers who accept Medicaid are lacking

- Healthcare providers lack PPE, COVID-19 tests

- Where COVID-19 tests exist, they are not available to everyone. There is often a long wait to test, and testing criteria change frequently.

- Poverty and low incomes are common; overall lack of financial resources

- Local economy cannot afford restrictions

- Resources need to be shared because of poverty

- There is a lack of health insurance; care is too expensive

- There is a fear of costs associated with having COVID-19

- Meeting basic needs is more important than responding to COVID-19

"A local health department placed an order for gloves in February. As of the middle of April, those supplies had not been received. If health departments are struggling to get supplies, households can't even begin to find the needed supplies."

"Requesting a member of the community to wear a mask means that client is obligated to get a mask; however that person did not have the means or funds to buy a mask. Also that client did not have the transportation to get hygiene products needed to sanitize their house. Not having a facial mask means that person is not able to go in a store if a mask is required."

"The local economy is very dependent on tourism and cannot afford to have limited dining or entertainment restrictions."

2. Gaps in knowledge, lack of current information from trusted sources

A range of gaps in knowledge and information impedes the ability of community members to use most public health strategies to minimize the impact of COVID-19, including protective hygiene, social distancing, PPE, COVID-19 testing, self-quarantining, and healthcare (Topics ABCDGH)

- Lack of access to current information from trusted, local sources

- Feeling bombarded with information from other sources

- "Safety fatigue" resulting from over-exposure to information without any information from trusted sources

- Fatigue from social media

- Low general level of education

- Low health literacy

- Lack of information about what public health strategies are or how to use them

- Lack of information about who is at risk

"[Individuals] lack...education about the virus due to limits to TV or Internet. In the Amish community, frequently the husband brings home word of mouth news to the family, [which] may not be accurate or adequate."

"[Many disbelieve] the pandemic is as bad as they hear on television."

"I see individuals using winter ear bands around their mouths in an effort to protect themselves. They do not have access to the PPE that is being encouraged by the state to stay safe. It is not enough to protect them."

- Misinformation

- Inconsistent information from regulatory agencies and hospitals

- Lack of knowledge about where to go to purchase supplies

- Lack of information about available resources

- Lack of understanding of how and where to seek care, how to use telehealth

- Lack of understanding of community health impact of COVID-19

- Lack of information and resources to sanitize home after a person has been diagnosed and/or recovered from COVID-19

"I am troubled at the lack of proper use of gloves [and] cloth masks. I feel that people practice less hand hygiene when they have these on. They provide a false sense of security for protection against the virus."

"Community members appear angry when asked to allow social distance as well as mask usage and see it as loss of 'rights'…Social media is a single source of information for many in this region. The spread of false information occurs via social media."

"One hospital's requirement for staff [is] different than another's. Healthcare workers share information and frustration and fear cause problems."

3. Work-related issues

Many members of these communities must go to work and cannot work from home. Work impedes use of protective hygiene, social distancing, COVID-19 testing, and self-quarantining (Topics ABDG).

- Must go to work for financial reasons

- Inability to work from home due to work policy or limited broadband

- Inability to use social distancing or other necessary protections in the workplace

- Reluctance to test because it could mean losing work

- Reluctance to skip work to self-quarantine because of potential loss of employment

"Many employers are not providing these resources at work. We have received many complaints from individuals along these lines."

4. Caregiving responsibilities

Caregiving responsibilities impede the ability of community members to use protective hygiene, social distancing, isolation, and self-quarantining (Topics ABFG).

- Lack of childcare or challenges with childcare

- Single parent households

- Caregivers for children, others must continue working or providing care even if sick

- Reliance on grandparents to care for children

"I think parents are frustrated with children being at home without guidance so they are letting them play with friends. They need organized activities to help keep them busy."

"A single mom, with no support, cannot isolate herself from her two small children."

"We have multiple situations where an individual is primary care giver for both a child and one or more elderly family members."

5. Housing Challenges

Housing conditions in these communities affect members' ability to use protective hygiene, social distancing, isolation, and self-quarantining (Topics ABFG).

- Crowded housing, small living quarters

- Multi-generational households

- Multi-family residences

- Multi-unit housing

- Large families

- Need to share housing, unable to live independently

- Homelessness, unstable housing

- Inability to isolate or self-quarantine

- Inability to get groceries or supplies while in self-quarantine

- Homes have only one bathroom

- Congregate settings and prison population

- Alternative living arrangements are not affordable

"A multi-generational family of 11 people ranging from age 4-57 [years old] live in the same house. One member is immunocompromised. Bedrooms are shared, meals are prepared together and eaten together. Schooling the children is shared. They do have adequate running water and ability to perform hand hygiene but the ability to clean surfaces often enough with that many people is limited. Not much room to socially distance."

"Loss of income may result in families moving in together to preserve income, making social distancing and isolating the sick impossible."

"In some cultures family members collectively work together to care for the sick. Quarantine and isolation is completely counter to their beliefs."

"Congregate living situations for homeless patients [are a problem. People] can't isolate if living in a homeless shelter."

6. Transportation Challenges

Lack of access to personal transportation, and limited access to all forms of transportation, impedes use of protective hygiene, social distancing, PPE, COVID-19 testing, and healthcare (Topics ABCDH).

- Reliance on public transportation

- Lack of public transportation

- No ride-share services

- Transportation costs limit use of transportation

- Cannot get to testing sites or healthcare located far from home

- Cannot get to stores to purchase supplies

"Limited to no transportation also plays a role in access to needed resources and creates challenges for social distancing due to the need to car pool or 'get a ride'. [This] often [results in] members of multiple different families crowded in one vehicle."

7. Political beliefs and cultural norms

Political beliefs and cultural norms limit community members' understanding of, and investment in, protecting themselves from COVID-19 using hygiene, social distancing, PPE, COVID-19 testing, isolation, and self-quarantining (Topics ABCDFG).

- Don't believe COVID-19 is real
- Don't believe COVID-19 will affect them personally
- Believe that COVID-19 is a metropolitan issue
- Don't believe social distancing is needed when not sick
- Don't believe isolation or self-quarantining helps
- Don't believe masks are effective; cultural pressure not to wear them
- Don't believe tests are reliable
- Anti-science attitudes exist
- Social pressure to conform to these beliefs exists

"There is a lot of 'chatter' on Facebook from members of the community that refuse to be told that they must wear a face mask. They are stating that they are not afraid of COVID-19. When others point out that they are to do it to protect others, not themselves, they state that it is against their rights. There is a lot of discussion that this was a manipulated intentional release of the virus to upset the election year. Community members don't understand or state that it is ridiculous that they cannot go to visit family members in nursing homes or go out to dinner. The community is about 50/50."

"The rural farming community believes they are immune to the virus."

"If I'm not sick, why should I do this?"

"Many are suspicious of the science, and government authority. They do accept responsibility for protecting others with appropriate behaviors."

"We were divided before and now it is worse. Examples... include the mean statements, hostile looks, complaints toward people taking precautions such as wearing masks. While violence has not yet occurred over masks, I anticipate that it will. People believe their opinions are facts and that people who disagree are their enemy – 'you're with us or against us' mentality. Very disturbing."

- Conservative ideology is common

- Valuing economics over science is common

- Many object to restraints on personal freedoms

- There are unhealthy social norms

- Social norms involve physical touching, caring for the sick

- It feels rude, culturally inappropriate to wear PPE

- Community groups include Amish communities and Latino communities

- Community and religious norms prioritize social interaction, family gatherings

- Many feel it is important to attend church, faith-based groups

"Many Appalachian families are following the lead of Donald Trump, who will not wear a mask, so they do the same. The community spread is high in our rural area because multiple families live in one household and work together in close quarters in factories."

"People are primarily concerned about [their] living situation or economic situation; safety or guidelines are not a priority."

"Nobody has a right to tell me what to do."

"For some who are uneducated, or frustrated by unemployment due to the pandemic, wearing a mask or complying with the hygiene guidelines may serve as a symbol of acceptance. Noncompliance is one way to protest."

"My community sees face coverings as a sign of weakness, or a sign of liberal political views, etc. Significant stigma exists against face covering."

"We have a large Amish and faith-based population that enjoys congregating in big groups."

8. Lack of access to technology

This barrier limits the ability of community members to use social distancing, contact tracing, and healthcare (Topics BEH).

- No Internet, no broadband

- No reliable access to phones

- Many do not have a landline

- Lack of access to telehealth

- Limited access to broadband prohibits telehealth and working from home

"The kids do not all have Internet access in order to complete school work."

"Primary care visits have declined because people are afraid of going to a doctor for fear of getting the virus. Telehealth only works if people have access to technology and have the ability to use it – [this poses] challenges for rural, elderly and immigrant populations."

"In our rural hospital we have used telehealth for several years due to lack of providers. Having that in place has been a benefit as systems are in place to expand capability rapidly. Unfortunately, many people stuck at home do not have access to technology in order to benefit from telehealth services."

9. Distrust of government and healthcare providers

These barriers impede the ability of community members to use most public health strategies to minimize the effects of COVID-19, including protective hygiene, social distancing, PPE, COVID-19 testing, contact tracing, and self-quarantining (Topic ABCDEG).

- Many distrust protective advice from government leaders

- Community doesn't like being told what to do

- Many distrust contact tracers, contact tracing process

- Confidentiality concerns exist

- Many do not want to "rat people out"

- There is fear of consequences of sharing information

- There is fear of deportation

- Noncompliance may reflect frustration with unemployment, pandemic

- There is distrust and fear of testing, testing sites

- Many do not trust that test results will be kept private

- Many do not trust providers to act in patients' best interests

- There is a fear of the repercussions of a positive test

"Many have an anti-government belief system, a lot of mistrust of any information they receive from the State, CDC, the WHO, etc."

"[Many individuals] don't see [recommendations] as a way to mitigate the spread but rather the government telling them what to do."

"Mistrust of government will probably be a barrier. Too many people live on the margins and may not want to give up names of people they hang with."

"When this started, citizens accused the hospital of hoarding supplies instead of testing patients. They struggled with understanding that we were required to test based upon guidelines that were established by a state agency. There was lack of trust in that response."

Other Barriers

These additional barriers represent separate issues reported by multiple respondents, but not as frequently as the 9 key barriers described above.

- Topic A & B – Hygiene & Social Distancing

  - Inconsistent enforcement of guidelines

- Topic B – Social Distancing

  - Hard to gauge adequate social distance

  - Small square footage of small businesses

  - Community is religious, has faith in religious leaders who don't respect need to social distance

  - Mental health concerns

- Topic C – PPE

  - Improper use of PPE, most notably masks

  - Mask wearing is not widespread in the community

  - Mask wearing is uncomfortable, difficult to breathe

  - Mask wearing is difficult for people with disabilities

"We are a rural community of about 16,800 people. Everything revolves around school, school activities, etc. People are lost without this. How can we continue to keep folks engaged at all levels that gives them meaning and purpose?"

"We have had a complete breakdown of societal norms for a virus that has proven to be not as dangerous as believed and similar to the common cold [sic]. We have confused young, blossoming minds with fear, confusion and instead of making them feel 'safe', they now feel more unsafe than ever before. In fact, many of them are, with increased risk of at-home abuse and neglect, lack of safe places for them to go and lack of abuse reporting. Elderly [people] are lonely and isolated. Those with mental health and addiction issues, especially veterans, feel like they have been cast aside for the sake of "public safety" for this virus. Animals have continued to be neglected and have died as a result of these efforts. The stories I've encountered are too many to choose one."

"I am able to wear a mask outside of my office in the hallways, at the grocery and in other community areas, however, with the asthma & COPD sometimes it is not easy to breathe."

- Topic D – Testing

  - People felt they were not important enough to get a test; rural communities get thought of last

  - Testing isn't occurring so no one knows who should be isolating

  - There are delays in waiting for test results

  - There is a lack of understanding of what the testing results mean, point-in-time testing

  - Tests need to be more reliable

- Topic E – Contact Tracing

  - Not enough contact tracers in the community

  - Bilingual translators fear for their own health – don't want to enter health departments

  - Contact tracing has been successful in some cases

  - Small-town feeling – everyone knows everyone

  - Some don't believe it can be done successfully

"Some members of our senior communities are frustrated when they hear famous athletes, coaches and other high-profile people are tested without even having symptoms and they cannot get a test. It took a long time for our EMS, fire departments and law enforcement workers to get access to testing."

"Testing results are often inaccurate, there's no consistency, no understanding of what results really mean, and none of this justifies the infringement of contract tracing or what that reporting will actually be used for."

"[There is a] lack of staff at the health department to help with the demands that have been placed on them due to COVID-19."

"Appalachia is very poor. Organizations that would normally do [contact] tracing are understaffed and grappling with other health issues that dilute [their] response."

- Topic H – Healthcare Access
  - Fear of disease
  - Stigma
  - Fear of going to the doctor
  - Mental health concerns
  - Increased substance abuse

"[The] geriatric population [is] overall afraid to come into the office for a health concern."

"Most mental health facilities are not operating during COVID-19, so there are very, very, very few resources for those who might search out treatment options."

"[We are seeing an] increase in positive depression screens and increase in alcohol consumption."

III. Key Ideas (Solutions) to Address Barriers and Minimize the Impact of COVID-19

These categories represent the most common solutions suggested to help rural communities use public health strategies to minimize the impact of COVID-19. These key ideas were mentioned by multiple respondents (ranging from 5 to >30) and would facilitate communities' ability to use multiple public health strategies. A summary of each proposed solution is followed by bullets which list details and specifics commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

1. Provide supplies and resources directly

Commonly suggested ideas to address the barriers above focus on direct and free provision of resources. These approaches would help improve community members' ability to utilize protective hygiene, social distancing, PPE, COVID-19 testing, isolation, and self-quarantining (Topics ABCDFH).

- Provide direct resources and financial support

- Provide free sanitizing and cleaning supplies, masks

- Distribute products to households and at community locations

- Distribute cleaning supplies with food boxes at schools

- Gather donated supplies

- Offer PPE at local distribution sites, or deliver it

- Mail masks and instructions to every home

- Improve availability of supplies, PPE at stores and public places (e.g.: senior centers)

- Provide PPE to caregivers

- Improve availability of testing in community sites, (e.g.: local pharmacies)

- Conduct free tests

"[Provide a] way for families to get assistance not viewed as government assistance – similar to the way BCMH [Bureau for Children with Mental Handicaps] used to be before [recipients] were required to apply for Medicaid first."

"In rural or economically disadvantaged areas, make sure sanitation or hand washing stations are available."

"Communities are very school focused and this could be used to reach MANY people."

"[Hold] drive-by [and] walk-up hand sanitizer and disinfectant wipe give-aways to [the] Amish community along with education. They are prideful and do not like handouts, however they are concerned too. They have limited access to the news reports."

- Open more testing sites within the community, including drive-up testing at health departments, mobile testing

- Offer testing at home, work, school

- Loosen criteria for testing

- Provide paid leave from work

- Deliver groceries and meals, particularly for those who are isolating

- Use volunteers to deliver services and supplies

- Provide free clinics in small communities

- Offer free healthcare and free prescriptions

"Community health centers are one of several safety-net providers in rural areas. The CHC in my county is not well established or trusted. When trying to reach the most vulnerable populations other safety-net providers must be considered. This includes Rural Health Clinics, free clinics, or any other provider which accepts patients regardless of their ability to pay. They may not receive the same level of funding as the CHCs, but often are the providers taking care of the community."

2. Partner with trusted community members, leaders, and organizations

Build trust in use of public health strategies to minimize COVID-19 by building partnerships with trusted community members, organizations, and leaders. This would facilitate use of hygiene, PPE, COVID-19 testing, contact tracing, and healthcare (Topics ACDEH).

- Develop messaging with input from target population
- Work with local health departments and businesses to provide community-specific messages
- Create community buy-in for public health strategies
- Use community sites and groups (food pantries, social service agencies, churches, etc.) to make supplies available and distribute supplies
- Use community health workers as key link between community and COVID-19 response
- Use trusted and respected community members to run testing sites
- Employ local community members to do contact tracing
- Use trusted community leaders in public education campaigns and activities
- Use community health workers and navigators to ensure proper care
- Support non-profit organizations with corporate funding
- Involve faith-based organizations
- Use community leaders as role models
- Engage with churches and religious leaders

"Someone from [community members' own] group talking about the hygiene practices [is] needed – better and more hand washing, use of hand sanitizers."

"Focus on protecting the most vulnerable – 'protecting grandma'."

"[We need] messaging that helps the population look to the future, when this has passed, that a time will come when social distancing will no longer be needed."

"Partner with senior programs like meals on wheels to inform and provide cleaning products/masks."

"[Community health workers are] an untapped resource that could be very effective. If available, the pharmacy could also provide education on the proper use of PPE when distributing."

"[Many community members] have a strong belief in those in an educated position such as healthcare providers etc. If they publicly take a stance, others will follow."

"[Use] real testimonials of rural folks impacted by COVID-19."

3. Increase and improve COVID-related education

High-quality education about a range of topics could be developed and used to improve use of almost all public health strategies to minimize the impact of COVID-19, including: protective hygiene, social distancing, PPE, testing, contact tracing, isolation, and self-quarantining (Topics ABCDEFG).

- Important topics for education and information:
  - Social distancing
    - How to use
    - Needed with extended family; protects others; isn't intended to limit rights
  - PPE
    - Importance of PPE
    - How and where to obtain PPE
    - Easy directions for making PPE
  - Testing
    - Importance and safety of testing
    - Locations, how to access without insurance
  - Contact tracing
    - Process and purpose
  - Importance and guidance for isolation and self-quarantining, including at home
  - Benefits of complying with public health advice
  - Public assistance available while a person is in quarantine
  - Ensure confidentiality of testing and contact tracing
  - Share testimonies of rural individuals impacted by COVID-19
  - How and where to find and access healthcare
- Modes of delivery:
  - Instructional videos
  - Social media videos featuring COVID-19 survivors in communities
  - Facebook
  - Visual cues at community and business locations
  - Posters at gathering places
  - Mailings

"[We need] clear guidelines from local decision makers such as [the] County Commissioner and local organizations and local opinion leaders."

4. Improve housing options

Housing support and new options would help improve use of hygiene, social distancing, and self-quarantining (Topics BFG).

- Ensure adequate housing

- Provide hotel vouchers

- Make contracts with special housing units

- Create larger homes or new arrangements to allow social distancing, isolating when needed

- Offer help to care for others in the home

- Improve options for childcare

"[Use] empty spaces or hotels in conjunction with community health to provide supplies."

"Utilize home health professionals to assist in delivering food because they are often already going into these homes."

5. Improve transportation

Improving public transportation and providing additional transportation options would facilitate use of COVID-19 testing and healthcare in these populations (Topics DH).

6. Improve access to technology

Improving access to Internet technology and related devices would help address hygiene, social distancing, and healthcare access barriers (Topics ABH).

- Affordable technology

- Improve broadband availability and cell phone access

- Increase ability and access to use telehealth

"Better broadband would provide opportunities for telehealth, jobs, and education/training (to work from home)."

"Churches are doing virtual meetings. Our community is relying heavily on virtual doctor's appointments and we do not have good Internet service so…doctors are doing phone calls."

Other Ideas

These additional ideas represent separate potential solutions reported by multiple respondents, but not as frequently as the 6 key ideas described above.

- Topic B – Social Distancing

    - Improve options for working from home

    - Mandate option to work from home without fear of retaliation or job loss

    - Limit large community events

    - Enforce government/public health orders

- Topic C – PPE

    - Require masks in public

    - Have businesses require masks

    - Make sure masks/PPE are culturally appropriate in design

- Topic E – Contact Tracing

    - Conduct contact tracing visits at home

    - Reassure participants about how their information will be used

    - Don't force contacts to self-quarantine

- Topic G – Self-Quarantining

    - Increase social pressure to use self-quarantining when appropriate

- Topic H – Healthcare Access

    - Increase local options for care

    - Increase the number of local healthcare providers

    - Provide services at home, mobile treatment options

    - Adopt universal healthcare

    - Help individuals enroll in healthcare coverage, find healthcare

    - Increase availability of mental healthcare

"In some cultures certain fabric designs may be considered vulgar to be worn. Mask design should be culturally appropriate."

IV. Trusted Community Resources and Linkages

Respondents also identified many trusted community resources – including categories of organizations, individual organizations, and individual individuals. Categories of organizations most commonly included:

- For health information:

  - Local public officials and public health providers

  - Non-profit organizations

  - Public health departments

  - Clinics, hospitals, and medical centers

  - Personal physicians and PCPs

- For medical care:

  - Local public officials and public health providers

  - Public health departments

  - Clinics, hospitals, regional medical centers

- For social service information and resources:

  - Local public officials and public health providers

  - Non-profit organizations

  - Social service organizations

  - Churches

  - Shelters

  - Food pantries and soup kitchens

  - Health centers

Respondents responded positively to the idea of community partnerships, and provided examples of links between rural communities and Federally Qualified Health Centers (FQHCs), community health centers (CHCs), pharmacies, and specific pharmacists. CHCs were seen as especially important, particularly now when hospitals and health systems are overwhelmed.

- Some also note reservations, however, including:

  - Some FQHCs will not work with community health workers or certain programs

  - Many agencies are too small and lack resources

Final Recommendations to Minimize the Impact of COVID-19 on Rural Populations in Ohio

These recommendations reflect the data provided by respondents representing rural communities as well as additional context and insight provided by our panel of expert researchers, public leaders, and practitioners with expertise focused on rural communities.

1. **Center the COVID-19 response in the organizations and cultures of local communities, implementing public health activity through partnerships with trusted community groups, empowering local organizations to lead this work, and providing them with resources to do so.**

Immediate, COVID-19 specific, recommendations:

Build and support collaborative networks of trusted community organizations and resources to guide the COVID-19 response, including churches and worship centers, pharmacies, healthcare centers, nonprofit organizations, etc. Tailor approaches to each local community.

In communities particularly skeptical of official health information sources, build trust and explicit linkages between existing community organizations and local public health or Ohio universities, to establish a foundation for conveying accurate health information.

Develop and expand comprehensive programs that rest on community health workers and health navigators to function as key links between community members and state-, regional-, and local aspects of the COVID-19 response.

Utilize trusted community leaders and organizations to role model recommended public health strategies, spread essential information, distribute needed resources, provide appropriate testing, conduct contact tracing, and connect community members to necessary supports.

Engage with church and religious leaders, and faith-based organizations, to build support for public health strategies and disseminate information and resources.

Train and hire trusted and respected community members to be community health workers, run testing sites, and conduct contract tracing; solicit suggested names from families throughout communities using letters from respected local leaders (e.g.: mayors).

Develop tailored, community-specific educational messages and create community buy-in for public health strategies by collecting systematic input from local health departments, business leaders, and community members.

Make supplies available and distribute them through community-based sites and groups, including food pantries, social service agencies, churches, etc.

Work with community centers and local programs to incentivize (instead of requiring) the use of masks in public. Options include allowing access to merchandise discounts or certain community activities only with appropriate mask or PPE.

Recognize and directly address cultural and social norms about health and wellness.

- Increase social pressure to wear masks, use self-quarantining when appropriate.
- Conduct contact tracing visits at home and reassure participants about how their information will be used.
- Encourage, role-model, and incentivize behaviors such as mask-wearing and self-quarantining; do not mandate them.
- Ensure that masks and PPE are made in culturally acceptable designs.

Conduct community-based studies to understand challenges to engaging rural communities in the COVID response, including lack of trust in healthcare providers, priorities for community health and wellness, how to invoke community-protecting altruism in relation to mask wearing. Design interventions based on findings.

Address the growing numbers of Hispanic and non-English speaking rural settlers and provide them with culturally appropriate COVID materials.

Immediate recommendations to improve the health of communities:

Provide more substantial financial support for non-profit organizations; utilize corporate funding.

Facilitate formation of mutual aid associations to deliver food, groceries, pick up medicines, etc.

Support resiliency within rural communities by creating clearly defined local disaster plans, and capacity to cope with and recover from natural disasters

2. **Explicitly address economic injustice and its widespread health and social impacts by directly improving access to resources to support disease prevention, COVID-19 response, and necessities of daily living.**

Immediate, COVID-19 specific, recommendations:

Facilitate ready access to masks (and directions for use), disinfecting/cleaning supplies, and other essential supplies through free distribution and affordable retail availability.

- Distribute supplies to households through community distribution sites, with food boxes at schools, and through home delivery methods.
- Gather donations of supplies; utilize volunteers to help with collection, distribution, and delivery.
- Ensure that PPE is available and delivered to caregivers, vulnerable groups who are isolating or quarantined.

Increase availability and accessibility of testing in community sites.

- Open more testing sites within communities, at local pharmacies, workplaces, schools, and through fire and EMS departments.
- Offer testing at home, drive-up sites, and mobile units.
- Increase access by loosening criteria for testing and ensuring it is free to patients.
- Increase availability and accessibility of testing in community sites.

Provide consistent contact tracing to follow up positive tests, using trusted community-based contact tracers and ensuring confidentiality of information.

Improve availability and accessibility of healthcare to ensure that individuals testing positive can be linked to COVID-related care.

- Create options for in-home and mobile treatment when healthcare facilities are not accessible.
- Utilize community health workers and patient navigators to connect patients to appropriate care and ensure it is free or covered at no cost to patients.
- Increase availability and access to telehealth appointments through Federally Qualified Health Centers and other safety-net providers; ensure that patients can tell telehealth calls are coming from their providers so they will answer the phone.
- Increase availability and access to mental health care and substance use disorder services.

Provide financial assistance to secure childcare and other caregiving help when individuals must isolate or self-quarantine.

Improve broadband availability and cell phone access, to increase accessibility of remote work arrangements, telehealth, and social connections.

- Ensure that these technologies are affordable or available through free programs. Pre-install COVID-related information and community contacts on free cell phones or tablets.

- Establish central hotspots for free Internet connections.

Immediate recommendations to improve the health of communities:

Integrate COVID-19 mobile testing with other mobile testing units that already work in rural communities. [1]

Improve local healthcare infrastructure by increasing the number of free clinics, local healthcare providers, and facilities that can care for mental health.

Utilize widespread community health worker and navigation programs to help individuals find primary healthcare, enroll in health insurance coverage.

Establish mobile health clinics operated by local residents to provide basic medical assistance and social check-in services.

Increase compensation in job areas where employee shortages are most severe.

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1 The Ohio State University's Center for Cancer Health Equity, for instance, operates mobile testing units that already conduct mammograms and lung cancer testing, and that could integrate COVID-19 testing capacity as well.

Recommendations to create a social context for long-term health and wellness:

Expand scope of practice and credentialing for pharmacists, nurse practitioners, physicians assistants, paramedics, and other ancillary providers so they can bill insurance and be reimbursed for services; they could thereby help fill the national shortage in primary care, deliver testing through pharmacies and EMS, and triage and connect individuals to appropriate care.

Adopt universal health insurance.

Establish free clinics and free prescriptions, particularly in small communities.

Ensure ongoing access to mental health care and substance use treatment.

Improve technological infrastructure in rural areas, through state and national programs.

Raise the mandatory minimum wage to a living wage.

Address social determinants of poor health in rural areas: lack of access to good-paying jobs, poor access to healthy food, few educational opportunities, lack of access to healthcare, affordable housing, public transportation.

Resource and utilize local community businesses and organizations, instead of outside businesses, to organize and implement these changes.

3. Improve employment and public policies to reduce the spread of COVID-19 in workplaces and improve engagement of communities coping with the impacts of the pandemic.

Immediate, COVID-19 specific, recommendations:

Enforce government and public health orders throughout communities.

Require employers to allow employees who can work from home to do so without fear of retaliation or job loss.

Limit large community events in rural communities.

Enlist local business owners to require the use of masks by employees and customers.

Work with community centers and programs to incentivize the use of masks in public; this approach may be more socially acceptable and effective than requiring them.

Immediate recommendations to improve the health of communities:

Ensure that workers have access to paid sick leave when necessary.

Recommendations to create a social context for long-term health and wellness:

Support economic and social linkages between urban, peri-urban, and rural organizations.

Strengthen regional development planning and informational exchange.

4. **Reduce the substantial COVID-19 transmission risks associated with dense living conditions by increasing access to affordable housing and creating new options for isolation and self-quarantine.**

Immediate, COVID-19 specific, recommendations:

Create larger home or new arrangements to allow individuals to social distance, isolate, and quarantine as needed.

Create free, community-specific housing options for those who need to self-quarantine and isolate or cannot do so in their own homes. Possibilities for achieving this include: offering vouchers for hotel rooms or temporary housing arrangements; creating make-shift housing in abandoned areas; creating temporary housing units in National Guard armories.

Provide arrangements for childcare and other caregiving that must continue occurring when an individual needs to isolate or self-quarantine.

Immediate recommendations to improve the health of communities:

Ensure adequate housing in all communities.

5. Improve access to COVID-safe, affordable transportation.

Immediate, COVID-19 specific, recommendations:

Provide financial support for community agencies providing transportation to healthcare sites and other social services.

Create financial incentives to bring rideshare companies into rural areas.

Enhance public transportation networks to allow individuals safe methods to get to locations to procure needed supplies, as well as testing and healthcare sites. [1]

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1 Build on pilot transportation programs (such as through Muskingum Valley Health Centers) that have already experimented with methods of funding and deploying vehicles and transportation networks. For information about this example program, see: https://www.mvhccares.org/

6. Increase and improve the dissemination of high-quality, culturally connected, COVID-related education throughout communities.

Immediate, COVID-19 specific, recommendations:

Strongly enhance the provision of information from trusted local sources while decreasing distribution of information from official and generic sources; this will fill the large informational gaps that exist and help ease "safety fatigue".

Develop culturally-relevant educational materials that cover a broad range of COVID-related topics, including: the reality and severity of COVID-19; how to use social distancing even with extended family; the idea that social distancing and mask wearing are intended to protect others, not limit individuals' rights; why PPE is important and how to obtain and use it; how to make masks; the importance and safety of COVID testing; how to get a test, including without insurance; the process and purpose of contact tracing; the importance of isolation and quarantine and how to do it at home; how and where to find and access healthcare; accurate information to dispel false information and misinformation.

Use a range of modes to deliver this educational information, including instructional videos, social media videos, Facebook, flyers/signs/posters at businesses and community gathering sites, household mailings.

Launch a public mailer campaign that uses simple language to explain basic COVID-19 information, dispel myths, review safety precautions, and clarify the benefits of utilizing these precautions.

Involve community members (including trusted leaders such as church leaders, teachers, and nurses) in every stage of developing and disseminating educational campaigns, and ensure that they are represented in all campaigns.

Feature pictures, videos, and words of local community members in all educational materials; include testimonials of rural individuals impacted by COVID-19.

Make community members aware that testing and contact tracing information is confidential, and that assistance is available for individuals; take steps to increase public confidence in these provisions.

Address the growing number of Latinos/Hispanics and non-English speaking rural settlers with culturally-appropriate COVID-19 educational materials.

Findings and Recommendations for *Needs Assessment* Populations

People with Disabilities in Ohio

Background

Terminology

Needs Assessment key populations are identified throughout this document using the terminology preferred by respondents. This section focuses on those who identified themselves as representing people with disabilities in Ohio.

According to the Centers for Disease Control and Prevention (CDC), a disability is "any condition of the body or mind that makes it more difficult for the person with the condition to do certain activities and interact with the world around them" (CDC, 2020b).

Population

In Ohio, people with disabilities represent 26.9% of the adult population, which is slightly higher than the U.S. national average (25.6%) (CDC, 2020c). Ohio's rates of disability are comparable for males and females: 26.6% and 28.7% respectively. National surveys – including the American Community Survey (ACS) and Disability and Health Data System (DHDS) – use a series of specific questions to determine the prevalence of hearing, vision, cognitive, mobility, self-care, and independent living disability in the U.S. population (Office of the Assistant Secretary for Planning and Evaluation, 2011).

**Table 9. Disability Prevalence in Ohio and the United States**

Type of Disability	Ohio Adult Prevalence	U.S. Adult Prevalence
Mobility	13.6%	12.4%
Cognitive	12.5%	11.5%
Independent living	7.3%	6.8%
Hearing	6.1%	5.9%
Vision	4.5%	5.0%
Self-care	4.1%	3.5%
TOTAL	26.9%	25.6%

Source: *Table 9.* Disability and Health Data System (DHDS). Adapted from *Centers for Disease Control and Prevention (CDC)* by H. Kemble, May 2020, Disability and Health Data System. Retrieved August 2020 from https://dhds.cdc.gov. 2020 by Centers for Disease Control and Prevention (CDC).

There is a strong age gradient of disability among Ohioan adults, with more adults aged 65 and older (44.7%) reporting functional disability than adults aged 45-64 (30.1%) and 18-44 (20.7%). The prevalence of disability in adolescents and children is considerably lower.

There is a considerable disparity between disability rates in urban and rural areas. In the U.S. overall, rural residents are 9% more likely than urban residents to report having a disability and 24% more likely to report having three or more disabilities; one in three rural adults live with a disability (Zhao et al., 2019). In Ohio, adult disability is most prevalent in Appalachian counties (21.4%), followed by metropolitan (18.7%), rural non-Appalachian (16.4%), and suburban counties (14.3%) (Ashmead et al., 2013). Children aged 3-17 are also more likely to be diagnosed with developmental disabilities in rural areas (19.8%) than in urban areas (17.4%). Unfortunately, rural children are also less likely to receive special education or early intervention services (Zablotsky & Black, 2020).

Map 9. Disability Prevalence Rate by County*
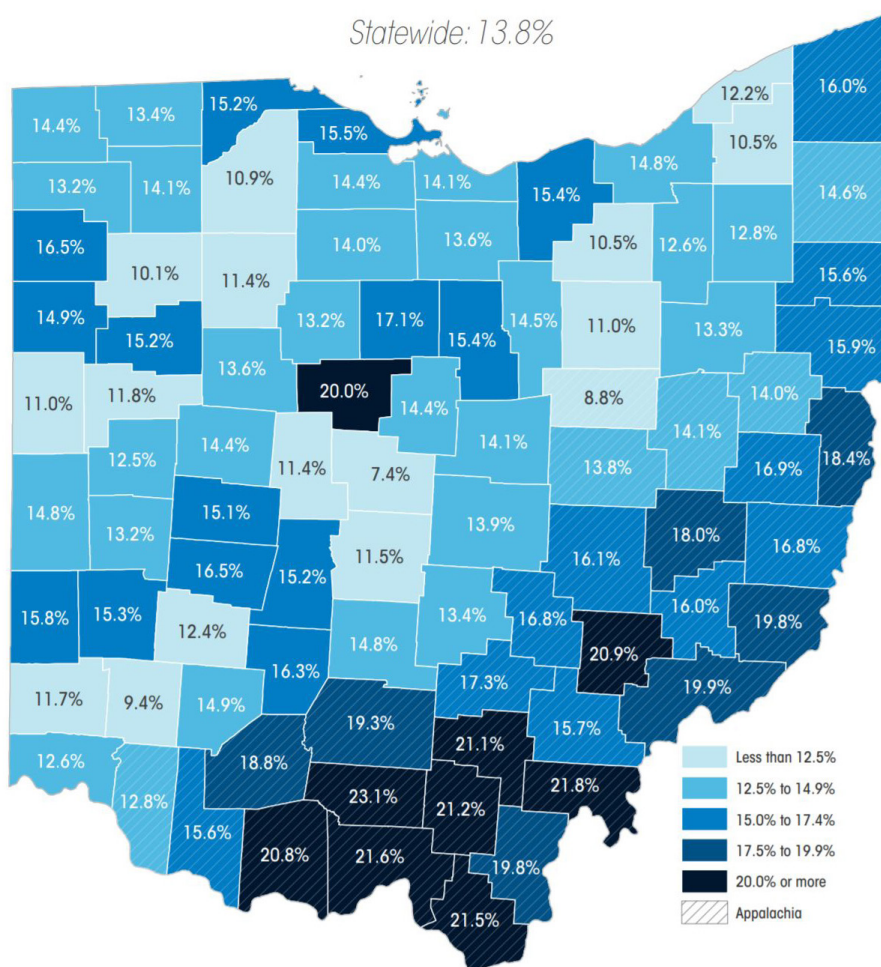
*Includes people with a hearing, vision, mobility, cognitive, self-care, independent living difficulty

Source: *Map 9*. Ohio Housing Needs Assessment Technical Supplement to the Fiscal Year 2019 Annual Plan. Retrieved July 2020, from https://ohiohome.org/news/documents/2019-HousingNeedsAssessment.pdf. *Office of Housing Policy*. 2019 by Ohio Housing Finance Agency.

There is also evidence of racial disparities in disability among adult Ohioans. While the age-adjusted disability prevalence among White Ohioans is 26.1%, the prevalence is higher among Blacks/African Americans (33.6%), Latino/Hispanics (39.1%), multi-race individuals (40.0%), and American Indian/Alaska Natives (45.0%).

Income and Education

People with disabilities generally experience socioeconomic disadvantages, including lower incomes, lower educational attainment, and lower employment rates than others. In the U.S., approximately 26% of 21 to 64-year-old adults with a disability live below the poverty line, compared to 10% of adults without a disability (Yang & Tan, 2018). These rates are somewhat higher in Ohio, where 29.5% of adults 21-64 years old with a disability live below the poverty line, compared to 10.6% of adults without a disability (Yang & Tan, 2018). Disability prevalence is higher among children from families with incomes below ≤ 200% of the federal poverty level and families using public health insurance (McGuire et al., 2019).

Disability rates are higher among those with less education. Among Ohio adults with less than a high school diploma, 21.6% report having at least one disability; this rate is only 10% for those with a high school diploma or some college education, and 5.0% for those with a college degree (Montez et al., 2017).

Employment rates for people with disabilities in the U.S. are much lower (35.9%) than for people without disabilities (76.6%), with the highest prevalence of employment in those with hearing disabilities (51.7%). In Ohio, only about one third of adults with disabilities were employed in 2016. Map 10 shows the percent of adults in each Ohio county who have a disability and are not in the labor force; these rates are generally highest in the rural and Appalachian regions of the state. Not only are people with disabilities less likely to be employed, but they earn significantly less than those without disabilities (Kraus et al., 2018). In Ohio, the median earnings for people without disability were $35,907, compared to $21,145 for people with disabilities (U.S. Census, 2019b).

Map 10. Percent of Population with a Disability and Not in the Labor Force, by County
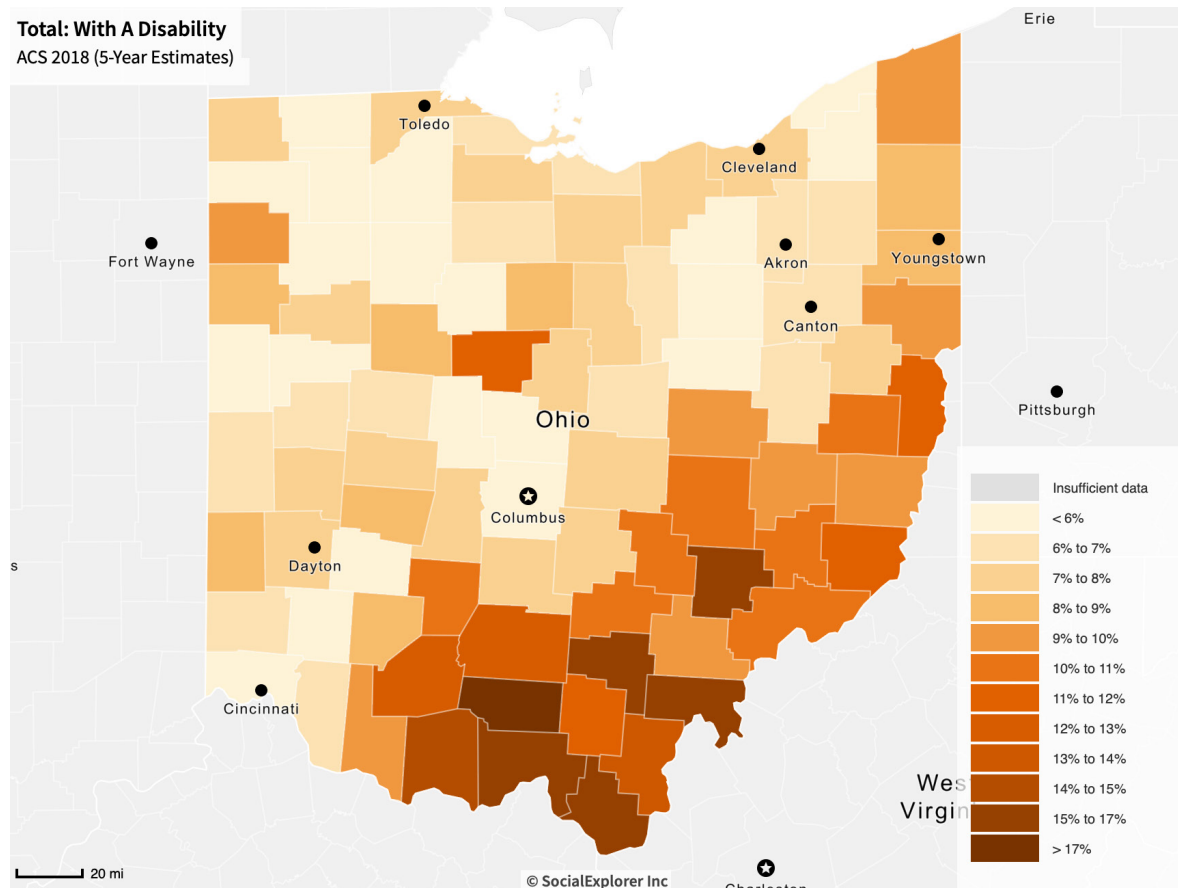
Source : *Map 10*. Percent of Population with a Disability and Not in the Labor Force, by County. Adapted from "Social Explorer," by C. M. Bijou, 2020, *Social Explorer*. Retrieved September 2020, from https://www.socialexplorer.com/75b635a62e/view. 2020 by Social Explorer Inc.

Households that include an individual with disabilities are more likely to experience housing challenges, including having insufficient kitchen or plumbing facilities, having more than one person per room, or spending more than 30% of their income on housing payments. Other challenges pertain to group housing availability: more than a quarter of Ohio counties have no Intermediate Care Facilities for individuals with intellectual disabilities, while over one-third of people in those facilities could transition back into the community if they had Medicaid waivers (Office of Housing Policy, 2019).

History of Disability Rights

People with disabilities in the U.S. have historically faced stigma, ostracization, abuse, and discrimination that has included medical experimentation, forced sterilization, and segregated institutionalization. Attempts to improve life for Americans with disabilities started with injured World War I veterans who pressed for rehabilitation and education support in what became the 1917 Smith-Hughes Veterans Vocational Rehabilitation Act. This was followed by the 1920 Smith-Fess Civilian Vocational Rehabilitation Act, which provided occupational guidance, training, placement, and other resources to non-veterans with disabilities (Ohio Statewide Independent Living Council, 2020).

Beginning in the 1960s, the Disability Rights Movement emerged in the organized efforts of people with disabilities to demand more from the government (Ohio Statewide Independent Living Council, 2020). In June 1970, Governor Rhodes of Ohio authorized Ohio's Vocational Rehabilitation program, now known as "Opportunities for Ohioans with Disabilities," to help people with disabilities to find or maintain employment (Opportunities for Ohioans, 2020). At the federal level, sections 503 and 504 of The Rehabilitation Act of 1973, the Federal Fair Housing Amendment Act of 1988, and the Education for All Handicapped Children Act of 1975 paved the way for the 1990 Americans with Disabilities Act (ADA) and ADA Amendments Act of 2008 (Ohio Youth Leadership Forum, 2020). The ADA and its amendments are the essential foundations of contemporary protections, mandating equality and prohibiting discrimination based on disability. In compliance with the ADA, the Ohio Revised Code includes specific requirements for each county's department of job and family services, outlines modifications and accommodations for people with disabilities, mandates physical access guidelines, and outlines procedures for discrimination reporting (Americans with Disabilities Act Compliance, 2016).

Health Profile

Ohio adults living with a disability have considerably higher rates of additional comorbid conditions than other adults, including inactivity (44.1% among adults with a disability vs. 25.8% of others), high blood pressure (42.5% vs. 27.0%), smoking (36.3% vs. 17.4%), and obesity (43.4% vs. 29.7%) (CDC, 2020c). All-cause mortality rates are also higher in adults with a disability than those without (Forman-Hoffman et al., 2015).

Across the U.S., women with disabilities are more likely to experience intimate partner violence, including rape (1.7% of women with disabilities vs. 0.4% among others), physical violence (7.1% vs. 3.3%), stalking (6.5% vs. 2.1%), and psychological aggression (21.0% vs. 12.2%) (Breiding & Armour, 2015).

Challenges Specific to COVID-19

Individuals with disabilities may suffer higher rates of serious morbidity and mortality due to COVID-19, but evidence is still emerging on this issue (Abedi et al. 2020; Kuper et al., 2020; Turk et al., 2020).

People with disabilities face known impediments to COVID-protective strategies more accessible to others. Individuals living in group facilities or reliant on caregivers may find it impossible to implement physical distancing (Cokley, 2020); early in the pandemic, New Yorkers with disabilities living in group homes had more than five times the risk of COVID-19 infection than those not living in group homes (Hakim, 2020).

Since the start of the pandemic, people with disabilities have faced multiple healthcare-related challenges, including trouble accessing ongoing care and being de-prioritized for care (Kuper et al., 2020); limited physical access to services and lack of supportive resources for telehealth (Burke, 2020); early discharges, reduction of rehabilitation activities, and restrictions on admissions to rehabilitation or long-term care facilities (Negrini et al., 2020). People with disabilities in rural counties are disproportionately affected by healthcare challenges because these areas have fewer healthcare services. Moreover, rural populations are often older and lack social capital, health insurance, and adequate Internet access for telehealth (Peters, 2020). In cities, people with disabilities have approximately four times the risk of COVID-19 infection than people without disabilities. This is likely due to physical barriers in public places, lack of access to services, less employment, and smart-city technologies that are not universally accessible (Pineda & Corburn, 2020). The healthcare complications faced by people with disabilities in the

COVID-19 pandemic could lead to widespread reduced functional outcomes and increased burden of care in the future (Boldrini et al., 2020; Negrini et al., 2020).

Finally, the COVID-19 pandemic has highlighted vulnerabilities in specific subpopulations. Emerging evidence suggests that young people with intellectual and developmental disabilities (IDD) have higher rates of COVID-19 infection than young people without IDD (Turk et al., 2020). Individuals with intellectual disabilities have reported difficulty understanding public health information about protective measures like social distancing , and are at risk of mental distress due to disrupted routines (Courtenay & Perera, 2020). This group is also at risk for breakdown of home placements or support due increased behavioral challenges, if they contract COVID-19, or if their caregivers become infected. These risks are especially concerning with respect to people with intellectual disabilities because they are vulnerable to exploitation in the absence of typical community support systems. Furthermore, the COVID-19 pandemic may have psychosocial and health impacts that are not quickly discerned, but early detection of patterns and faster implementation of targeting strategies can reduce disparities among those with intellectual and other disabilities (Cuypers et al., 2020).

Findings from Analysis of *Needs Assessment* Data from Respondents Representing Ohioans with Disabilities

Description of Respondents: 35 respondents representing Ohioans with Disabilities completed the *Needs Assessment* survey. This is not a general sample of people with disabilities, but a purposeful sample of individuals who represent organizations, agencies, and community groups that work with people with disabilities in Ohio. Respondents were predominantly white, middle-class, female family members, caretakers, and guardians of or people working with persons who have disabilities. They have contact with the community through non-profits, disability services, health centers, and public health departments.

I. Strengths of the Community

Respondents identified a broad range of community strengths that should be used as part of the COVID-19 response among people with disabilities. These commonly included:

- Community members are accustomed to adjusting day-to-day life; they are likely advocates to promote public health messaging

- Agencies and organizations typically work well together

- Community members have a high level of knowledge of their own needs and potential solutions

- Characteristics of community are:

    - Strong families

    - Resiliency

    - Close knit

    - Collaborative

    - Ready to face and overcome adversity

II. Key Barriers to Using Public Health Strategies to Minimize the Impact of COVID-19

These categories represent the most common barriers to the use of public health strategies to minimize the impact of COVID-19 by Ohioans with Disabilities. These key barriers were mentioned by multiple respondents (usually 5 to 10), and they affect community members' ability to use multiple public health strategies. A summary of each barrier is followed by bullets which detail specific instances and problems commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

Topic A: Hygiene

Topic B: Social Distancing

Topic C: Mask-Wearing and Personal Protective Equipment (PPE)

Topic D: COVID-19 Testing

Topic E: Contract Tracing

Topic F: Isolation

Topic G: Self-Quarantining

Topic H: Healthcare Access

1. Lack of access, availability, and cost

This barrier limits the ability of people with disabilities to use protective hygiene practices, PPE, COVID-19 testing, isolation, quarantine, and appropriate healthcare (Topics ACDFGH).

- General lack of financial resources

- Limited availability of emergency funds

- High cost of hygiene and cleaning supplies, PPE

- PPE is not available, difficult to find, hard to afford

- Caregivers (independent, in congregate living facilities, and unpaid) have difficulty obtaining PPE

"Individuals with disabilities may not be able to easily access goods from stores now. Service providers need PPE and cleaning supplies to safely provide services in someone's home. The direct support professionals need to have access to these products to reduce risk."

"Independent in-home providers do not have a centralized way to get PPE; Medicaid does not pay for it and they would each have to try to get it on an individualized basis."

- Price gouging for PPE exists

- Few people know how to make their own masks

- Availability of tests is limited

- Many worry about loss of income if individuals need to isolate or self-quarantine

- There is limited access to interpreters

- There is a lack of insurance coverage for telemedicine

- Healthcare access is limited

"People with disabilities who need PPE for their own care (not COVID related) have had difficulty accessing it or have experienced price gouging."

"Folks need jobs and can't stay away from work or they lose their income."

"[There is] no interpreter access if [people] go to remote areas with testing from [a] car."

"Programs [have been] shut down due to stay at home order."

2. Barriers directly related to disabilities

Disabilities create direct barriers to using hygiene, PPE, COVID-19 testing, contact tracing, and isolation (Topics ACDEF).

- Deaf/blind persons need touch to communicate

- Physical touch is essential to individuals with other disabilities as well

- PPE and masks are difficult to use for some groups

  - Deaf individuals and others unable to communicate or get information without facial cues

  - Those who have motor issues that impede ability to don face coverings

  - Those who have trouble speaking or have sensory issues (e.g.: some autistic individuals)

  - Those with serious lung conditions, related physical impairments

- Masks aren't safe for some groups, and can become quickly wet for people with some disabilities

- Some individuals are unable to cover coughs and sneezes

- Some individuals habitually put hands to mouth, touch their eyes

- Some individuals have mobility limitations that limit use of hygiene

- Some individuals have limited understanding of protective measures

"Wearing masks is an issue for those with breathing, behavioral, or sensory issues and certain physical issues (cerebral palsy, Parkinsons, ID, etc.) which prevent them from putting on, taking off, or keeping a mask in place."

"One woman with an intellectual disability saw a person in authority not wearing a mask, and that really confused and bothered her – since she was being told she had to wear it."

- Some individuals are unable to express symptoms

- Some individuals are unable to remember recent activities (impedes contact tracing)

- Some individuals have resistant reactions that impede testing

- Barriers to social distancing:

  - Keeping routines steady is important

  - Close contact prevents social isolation

  - Some experience violence or abuse at home, which can make choosing social distancing impossible

  - Wheelchair spacing in public spaces has not been expanded to accommodate need to be further apart to social distance

- Additional isolation (through social distancing, isolation, self-quarantine) is against the community norm, may cause mental health or emotional challenges

- Greater isolation may increase difficulty reporting abuse, trauma

- Public health strategies to minimize COVID-19 risk have not been developed with the needs of people with disabilities in mind

- People with disabilities may fear ending up in the hospital:

  - Lack of access to interpreters, communication devices

  - Not being allowed to have a caregiver with them

  - Not receiving the same quality of care as people without disabilities

"Violence within the home is a concern for those who live with their abusers, who are also likely more anxious, stressed, and stuck at home as well."

"Some people may be more prone to emotional or mental issues within isolation."

3. Challenges of housing and care facilities

Housing conditions affect the ability of people with disabilities to use protective hygiene practices, social distancing, PPE, isolation, and self-quarantining (Topics ABCFG).

- Living in group settings and shared communities

- Congregate living situations

- Group day programs

- Homelessness

- Small living environments

- Many people living in the home

- Lack of funds to isolate or self-quarantine at a hotel

- Difficulty separating residents of care facilities who test positive vs. negative

- Care facilities have inadequate PPE

- Potential alterative location for isolation or self-quarantining may not be accessible to individuals with disabilities

"Some of the biggest impacts we're seeing are on people with disabilities who live in a congregate setting and/or receive their day services in a congregate setting. Many of these people are not being allowed to go anywhere, do anything, see anyone. They do not have the same access to financial resources, grocery pick up/deliver, online ordering, etc. that other people do to even be able to purchase their own face coverings, hand sanitizer, etc. -- that is largely being controlled by the facilities they live in…especially since they are also not allowed to see family."

"In congregate settings, people are challenged to figure out how to social distance."

"Homelessness makes it challenging to stay distanced from one another if you live in a tent city or a shelter."

4. Reliance on others

Many people with disabilities rely on caregivers and aides for regular, daily help. The necessity of close caregivers creates challenges to the ability of individuals to use protective hygiene, social distancing, contact tracing, isolation, self-quarantining, and healthcare (Topics ABEFGH).

- Individuals with disabilities often rely on others:

  - For help with hand washing, cleaning

  - For help with personal care, other activities

  - For transportation

  - With activities of daily living

  - For physical mobility

  - For interpreter services, other communication assistance

  - In medical care situations, testing sites, for contact tracing interaction

- Not having access to a regular caregiver can be detrimental to the health and hygiene of a person with a disability

- Caregivers must be closer than 6'

- Physical touch and close proximity is required for much of caregiving

- Reliance on caregivers means that caregivers must understand and follow protective guidelines

- Necessary providers, advocates, and caregivers may not be allowed at medical appointments during the pandemic

- Isolation and self-quarantine require support that many people lack; e.g.: someone to bring food and supplies

- Isolation and self-quarantine measures are not constructed to accommodate family members or caregivers

"The willingness of staff members that are caretakers to follow recommendations is a huge concern."

"When the person contracting COVID is the sole caregiver and lives with the person they serve it will be impossible to isolate unless the person testing positive is given immediate assistance upon diagnosis."

5. Lack of information and knowledge

Limited information and knowledge about COVID-19 limit the ability individuals to use protective hygiene, social distancing, and PPE (Topics ABC).

- Limited education and health literacy

- Lack of modeling of preventive behaviors by other individuals with disabilities

- Lack of understanding of how to use proper hygiene practices

- Lack of understanding of the need for social distancing, how much distance is necessary, when it is needed

- PPE:

    - How to access it

    - How to wear it

- Not understanding how to navigate complex systems during the pandemic

"In some, cognitive function does not allow [individuals] to understand the need, learn how and remember to follow."

6. Work-related challenges

Work-related challenges impede the ability of individuals to use protective hygiene and social distancing (Topics AB).

- Many work in low-paying jobs

- Jobs that don't allow working from home, or time off

- Jobs that make frequent hand washing impossible (e.g.: cashier)

- Jobs that involve public contact (e.g.: retail)

"Many folks with disabilities [are] in low-paying jobs [and] do not have the ability to work from home or access to paid [family or medical leave]."

7. Transportation limitations

Limited transportation options impede the use of social distancing, COVID-19 testing, and healthcare (Topics BDH).

- Reliance on public transportation

- No transportation to healthcare locations

- Limited income for private transportation

"Many [people] rely on public transit [or supportive transportation] services…and there were already existing issues with access prior to the pandemic."

"Limited income [restricts individuals' ability] to drive or afford Internet services for access to [tele] health."

Limited use of technology impedes the use of protective hygiene, testing, contact tracing, self-quarantining, and healthcare (Topics ADEGH).

- Limited access to technology

- Lack of Internet access, WiFi

- Not knowing how to use telehealth

- Technologies that help with interpretation, translation, communication may not be available in healthcare or testing sites

"Since access to many of these things has gone virtual, issues have arisen connected to limited or no computer/WiFi technology and/or limited caregiver technology know-how."

"Telehealth simply does not work for this population."

"This is an unprecedented, incredibly stressful situation where in-person appointments and public transit are no longer available; folks without access to technology have few options. In this type of situation, people with mental health disorders already have a tendency to move away from treatment."

Other Barriers

These additional barriers represent separate issues reported by multiple respondents, but not as frequently as the 8 key barriers described above.

- Topic D – Testing

  - Privacy concerns

  - Changing guidelines

- Topic E – Contact Tracing

  - Cognitive difficulties understanding the purpose, understanding questions, answering them

  - Interviewers must adapt to person's mode of communication, use clear and plain language

  - May need to accommodate a caregiver or assistant

  - Plan for extra time and patience

- Topic H – Healthcare Access

  - Lack of trained providers, many programs closed due to stay-at-home order

  - Lack of PCPs, mental health providers

  - Lack of clinicians with disabilities

  - Distrust of medical community, partially due to past medical traumas

III. Key Ideas (Solutions) to Address Barriers and Minimize the Impact of COVID-19

These categories represent the most common solutions suggested to help Ohioans with Disabilities use public health strategies to minimize the impact of COVID-19. These key ideas were mentioned by multiple respondents (ranging from 5 to at least 15) and would facilitate the community's ability to use multiple public health strategies. A summary of each proposed solution is followed by bullets which list details and specifics commonly mentioned by respondents. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

1. Directly address disability-specific challenges

Direct attention to barriers and specific needs relevant to individuals with physical, intellectual, and developmental disabilities could improve their ability to benefit from all COVID-related public health strategies. These include use of protective hygiene, social distancing, PPE, testing, contact tracing, isolation, self-quarantining, and healthcare (Topics ABCDEFGH).

- Masks/PPE

  - Provide transparent masks for deaf individuals (and others for whom visual communication is essential), workers who may interact with them

  - Provide less restrictive face coverings (shields)

  - Make masks from chosen fabrics, use appealing designs

- Contact tracing

  - Use simple plain language

  - Accommodate interpretation services and technologies

  - Pay people with disabilities, or connected to disabled communities, to do this

- Isolation & Quarantine

  - Provide assistance in isolating at home, or provide separate locations to do so

  - Allow committed caregivers to isolate or quarantine with individuals with disabilities

- Provide additional COVID-specific training for individuals caring for people with disabilities

> *"[Make] face coverings less restrictive (e.g.: shields) and more fun…featuring favorite characters, etc."*

- Increase disability-related competencies among healthcare professionals

- Facilitate interpretation and communication in workplaces and healthcare facilities using interpreters and technological solutions

- Consider interpreters to be essential employees

- Allow trusted companions to accompany people with disabilities to testing and healthcare, involve them in contact tracing

- Make caregivers aware of resources

- Include disability community in future emergency planning

"[We need to build] greater understanding among medical professionals regarding how to treat and interact with people who have intellectual and developmental disabilities."

"Workplaces [should] provide masks with visual plastic coverings or face shields for communication access, and [workers should] carry iPads to be able to use VRI services for remote interpreting."

"[Work] with the helper organizations to address social needs that medical systems don't understand."

2. Provide supplies and resources directly

(Topics ABCDH)

- Deliver supply kits to homes, including cleaning and sanitizing supplies, PPE

- Improve availability of sanitizing supplies and PPE at stores and facilities

- Create designated facilities or times when individuals with disabilities or their caregivers can safely purchase supplies

- Increase funding for disability service providers, including sick and hazard pay

- Provide direct financial resources or subsidies to buy cleaning supplies and PPE

- Make PPE easier to locate, more affordable for low-income populations

- Provide PPE for in-home caregivers and facility staff, free or through Medicaid

- Make masks widely available – at business entries, distribution centers

- Make testing widely available at community sites, in poor neighborhoods, and at home

- Make COVID-19 testing free or covered by Medicaid or health insurance

- Make paid leave possible for high-risk people

- Improve availability of affordable or free transportation that is safe, reliable, accessible and provides social distance between passengers

- Improve financial accessibility of healthcare

- Provide universal basic digital connectivity to facilitate care

- Increase free access to Internet, technology, Zoom, and forms of social media

- Provide additional waiver support for those in isolation

- Provide overnight pay for caregivers who may work longer shifts in order to facilitate social distancing, isolation, or self-quarantining

"[Create] a list of places that sell specifically to those [working] in home care (agency [workers] and independent providers) and what they have in stock."

"Provide subsidized or free supplies; [the] financial resources [of people with disabilities] are often already over-taxed."

"Medicaid should identify those eligible and pay for these supplies in home-care settings so clients can provide them to their healthcare workers if needed."

3. Education

Increasing education about COVID-19 protections among individuals with disabilities and caregivers – and education for testers, contact tracers, and healthcare providers about the needs of individuals with disabilities – would improve this community's ability to use all COVID-related public health strategies. These include protective hygiene, social distancing, PPE, testing, contact tracing, isolation, self-quarantining, and healthcare (Topics ABCDEFGH).

"[There is a] need for education and training of caregivers & guardians of this population that includes creative ways to teach [preventive] practices [to individuals with disabilities], adjusting for each unique individual. And best practices for those [who are] caregiving."

"[A helpful idea would be] creating, sharing, and modeling an entertaining "Top 10 Best No-Touch Greetings" video."

4. Technological solutions

Increased use of technological solutions could increase the ability of individuals with disabilities to use social distancing, PPE, testing, and healthcare (Topics BCDH).

- Provide in-home training on basic technology use

- Improve access to technology and Wi-Fi

- Increase access to Zoom, Sorenson interpreters

- Provide iPads in workplaces to assist with remote interpreting

- Continue and extend telemedicine access

- Ensure that technologies used for communication, interpretation, translation are available in all healthcare, testing sites

- Create remote options for court and police services

"[There needs to be] improvements in Internet coverage in rural areas."

"[Improve availability of] on-call interpretation services, with Zoom option or Facebook video [including] interpretation for deaf folks [who have] limited experience with technology."

5. Improving housing conditions

Specific attention to the situations in which people with disabilities live, and in which they would need to isolate or quarantine, can help them make use of social distancing, isolation, and self-quarantining (Topics BFG).

- Provide PPE and quarantine systems in congregate care

- Provide temporary housing, emergency funds for those who need to isolate

- Ensure that temporary housing solutions have appropriate accommodations, communications technologies, and WiFi

"[Create] more affordable housing and temporary options for those who need to isolate."

"Most who have autoimmune disorders, behavioral problems, or intellectual disabilities simply have not gone out unless they have no choice. Facility-based housing and some group homes have not allowed visitors or furloughs. So those residing in these facilities have not seen their loved ones for several months. This is having a devastating impact on the mental health for both families and their loved ones."

IV. Trusted Community Resources and Linkages

Respondents also identified many trusted community resources – including categories of organizations, individual organizations, and individuals. Categories of organizations most commonly included:

- For health information:

  - County Boards of Developmental Disabilities

  - Non-profit organizations and public agencies

  - Primary care providers

  - Health departments

  - Local, state, and national news and press conferences

  - Websites

- For medical care:

  - Health departments

  - Non-profit organizations and community centers

  - Public agencies

  - Healthcare institutions, including free clinics and rural health centers

  - Primary care providers

- For social service information & resources:

  - County Boards of Developmental Disabilities

  - Health departments

  - Non-profit organizations and public agencies

  - Local, state, and national news and press conferences

  - Websites

  - Social media

Most respondents did not feel that Federally Qualified Health Centers (FQHCs), community health centers, or pharmacies were promising community partners for minimizing the impact of COVID-19 on people with disabilities. Pharmacies could be helpful as a trusted distribution point for clear, simple educational messaging.

Final Recommendations to Minimize the Impact of COVID-19 on People with Disabilities in Ohio

These recommendations reflect the data provided by respondents representing Ohioans with Disabilities as well as additional context and insight provided by our panel of expert researchers, public leaders, and practitioners with expertise focused on people with disabilities.

1. **Center the COVID-19 response in the organizations and cultures of local communities, implementing public health activity through partnerships with trusted community groups, empowering local organizations to lead this work, and providing them with resources to do so.**

Immediate, COVID-19 specific, recommendations:

Utilize disability advocacy and service organizations to help locate individuals with disabilities who can provide program or decision-making input, or who can be trained and hired into programs and jobs related to the COVID-19 response.

Partner with trusted disability advocacy groups and community service providers (including Centers for Independent Living, County Developmental Disability Boards) to:

- Develop and disseminate educational materials that are usable and appropriate for people with disabilities
- Develop customized advice and supplies to protect individuals with disabilities and their service providers from COVID-19

Hire individuals with disabilities or their advocates to develop necessary adapted guidance for:

- Maintaining relied-upon routines alongside COVID-19 safety procedures
- Isolating/quarantining with a caregiver
- Including a caregiver or other trusted person in testing, contact tracing, and healthcare

Include individuals with disabilities in state- and local-level planning for emergencies, responding to COVID-19, and economic recovery.

Involve individuals with disabilities and their caregivers as volunteers to help disseminate educational materials, lead educational events, etc.

Involve individuals with disabilities and disability advocates in modifying policies and procedures to allay healthcare-related fears: that communication needs will not be met, caregivers will be excluded, treatment will be rationed in ways that discriminate against people with disabilities.

Immediate recommendations to improve the health of communities:

Prioritize hiring, including, and consulting with people with disabilities whenever possible; when this is not possible, include disability advocates or individuals accustomed to working in the disabled community instead.

Recommendations to create a social context for long-term health and wellness:

Train and hire more individuals with disabilities to work as clinicians and peer service providers.

Include individuals with disabilities on hospital and medical ethics boards and in policy making committees.

2. **Explicitly address economic injustice and its widespread health and social impacts by directly improving access to resources to support disease prevention, COVID-19 response, and necessities of daily living.**

Immediate, COVID-19 specific, recommendations:

Facilitate ready access to disinfecting/cleaning supplies, other essential supplies, facial coverings, and PPE appropriate to the needs of people with disabilities and their caregivers.

- Provide free or low-cost access to gloves, cleaning supplies, sanitizers, masks, adapted facial coverings, and PPE by improving availability and access at local retail sites, distribution through community organizations, and delivery to homes when needed.

- Provide financial support to help people with disabilities and their caregivers purchase disinfecting/cleaning supplies, masks, other facial coverings, and PPE through Medicaid waivers, SNAP EBT cards, disability service provider organizations, or other mechanisms.

- Ensure that all caregivers and disability service providers (paid, unpaid, in residential facilities, in independent situations, formal, and informal) have access to appropriate facial coverings and PPE, including medical grade facial coverings when those they care for cannot wear facial coverings.

- Provide transparent masks, less restrictive facial coverings, and masks designed from alternate fabrics, tailored as appropriate to individuals who must communicate through visual means, individuals with mobility and other disabilities, and caregivers who interact with them.

Provide free COVID-19 testing that is usable by people with disabilities.

- Ensure that testing is widely available at community sites, in low-income neighborhoods, and in homes when needed.

- Ensure that testing is widely available to disability service providers and residents with disabilities living in the community.

- Develop less invasive tests to ease use among those with strong physical or trauma-based reactions.

Ensure that those who test positive can be effectively linked to ongoing healthcare; improve financial accessibility of healthcare.

- Continue and extend telemedicine access.

- Ensure that all COVID-related care can be accessed without out-of-pocket costs or the need for health insurance.

Ensure access to social support and mental healthcare.

- Provide emotional support services to those in isolation or quarantine.

- Expand telehealth options for mental health care, social support activities, and interpersonal interaction.

- Provide extra education, hotline access, and oversight of in-home and residential care situations during the pandemic to prevent isolation with abusers.

Provide universal basic digital connectivity, Wi-Fi, and access to communication devices.

Provide in-home training to use technologies that aid in communication, interpretation, social connection, and healthcare.

Increase direct financial supports for people with disabilities and their caregivers

- Provide overnight pay for caregivers working longer shifts to facilitate social distancing, isolation, and self-quarantine.

- Provide additional waiver support for those in isolation or self-quarantine.

- Increase funding for disability service providers, including sick and hazard pay.

Recommendations to create a social context for long-term health and wellness:

Institute universal healthcare.

Ensure ongoing access to physical healthcare, mental healthcare, and substance use services.

3. **Correct the historical exclusion of the needs of people with disabilities from organizational and public policy making; directly address the impacts of past discrimination against people with disabilities.**

Immediate, COVID-19 specific, recommendations:

The needs of individuals with a range of disabilities must be considered in the development of all COVID-related policies and protections.

Immediate recommendations to improve the health of communities:

Policy solutions should prioritize addressing communication, affordability, and access issues, since these will alleviate multiple barriers to health, autonomy, and empowerment among people with disabilities.

Hospital regulations must be revised to alleviate fears based in a history of patients with disabilities being left alone, having their needs ignored, being unable to communicate, and receiving lower-quality care than patients without disabilities.

4. **Improve organizational and public policies to facilitate use of COVID-related protections, and to ensure equitable care for people with disabilities during and beyond the pandemic.**

Immediate, COVID-19 specific, recommendations:

Make paid leave or remote work possible for individuals at high risk from COVID-19.

Require employers to provide PPE for employees and facilitate social distancing, hand washing, and surface cleaning.

Integrate policies to require appropriate facial coverings at disability service organizations.

Revise social distancing provisions in public spaces to allow 6' distance around individuals in wheelchairs, using wheelchair parking.

Improve training and working conditions for disability service providers.

- Require that disability service providers working under waivers undergo COVID-19 training; link this training to access to reduced-rate PPE and cleaning supplies.

- Implement paid sick leave and hazard pay provisions for disability service providers.

- Implement a state-wide hotline to employ temporary personal care assistants when regular care providers are unavailable due to illness.

Expand waiver services for those who need to isolate or self-quarantine, for independent affordable housing, and to support the needs of people with disabilities living in the community.

Create remote options to access police and court services.

Improve hospital and medical facility policies to ensure equitable care for people with disabilities.

- Ensure that caregivers (formal and informal) can accompany individuals with disabilities to doctor's appointments, hospital care when needed.

- Review triage ethics protocols for equitable treatment of people with disabilities.

Recommendations to create a social context for long-term health and wellness:

Improve training and prestige of disability service providers to bring more individuals into the profession, improve quality of care, and provide backups for sick workers.

Raise compensation for direct care providers to a living wage so they can provide higher-quality care for fewer clients.

5. Provide alternate housing solutions to alleviate transmission risks due to crowded living conditions; create COVID-safe conditions in congregate living situations.

Immediate, COVID-19 specific, recommendations:

Ensure that congregate care settings have adequate PPE, hygiene supplies, and provisions in place.

To facilitate isolation and self-quarantining when necessary, provide temporary free housing or emergency housing funds to individuals and their caregivers who do not have space at home; ensure that temporary housing situations include appropriate accommodations, communication technologies, and WiFi.

Create COVID-safe accommodations for incarcerated people with disabilities.

Recommendations to create a social context for long-term health and wellness:

Design and implement long-term alternatives to congregate care for people with disabilities.

6. **Build a public transit infrastructure that can serve all people 7 days/week with affordable or free transportation that is clean, reliable, accessible, and provides social distance between passengers.**

7. **Increase education about COVID-19 among individuals with disabilities and their caregivers, and increase education about the needs of individuals with disabilities among those involved in the COVID-19 response.**

Immediate, COVID-19 specific, recommendations:

Develop clear guidance on hygiene, facial coverings, use of PPE, and other COVID-19 protections appropriate to the needs of individuals with a range of disabilities.

Ensure that educational messaging related to COVID-19 is accessible through use of plain language, interpretive services, and communication technologies.

Provide COVID-specific educational trainings for disability service providers and formal and informal caregivers.

Develop specific trainings to educate contact tracers and staff of health departments, testing sites, and healthcare facilities about individuals with disabilities, to raise awareness about situations they may encounter and helpful approaches for interaction.

Immediate recommendations to improve the health of communities:

Increase disability-related competencies among all healthcare professionals.

8. **Utilize interpreters and interpretive technologies to resolve communication barriers.**

Immediate, COVID-19 specific, recommendations:

Use simple, plain language that is easily interpreted in educational materials, testing procedures, and contact tracing protocols.

Consider interpreters, interpretive technology, ASL interpretations, screen readers, closed captioning, and audio descriptions as potential options for ensuring communication of COVID-related information.

Classify ASL and other interpreters as essential employees.

Ensure that interpretation services and technologies are provided throughout the healthcare landscape, including during contact tracing and at testing sites, healthcare facilities, and hospitals.

Immediate recommendations to improve the health of communities:

Facilitate communication in workplaces using interpreters and interpretive technologies.

Findings and Recommendations for *Needs Assessment* Populations

Other Ohio *Needs Assessment* Respondents

Description of Respondents

Of 363 total respondents to the *Needs Assessment*, 13 did not fit into any of the 6 population groups for which findings are presented above. These respondents classify themselves as follows:

- 7 respondents represent low-income, uninsured, underserved, homeless, and Medicaid populations in Ohio. All work for non-profit organizations serving these populations; 1 respondent identifies as a member of the population served. All these respondents identify themselves as middle class; 6 identify as female and 1 as male.

  - Findings from these 7 respondents are reported below.

- 2 respondents identified themselves as representing senior citizens. The one who provided further information about herself identifies as a middle-class female who works in a non-profit senior services agency.

  - One of these respondents provided very little information; specific findings from the single other respondent are not reported, but information she provided echoes insights reported in reference to low-income communities and individuals with disabilities.

- 1 respondent identified herself as a middle-class female member of the indigenous community, who works as a government employee with the community through a nonprofit organization.

  - Specific findings from this single respondent are not reported, but information she provided echoes insights reported in reference to other Ohio communities of color.

- 1 respondent identified himself as an affluent male member of the LGBTQ community, who works with the community through a non-profit organization.

  - Specific findings from this single respondent are not reported, but information he provided echoes insights reported (a) in reference to low-income communities and (b) in reference to mental health impacts of COVID-19 on several other marginalized Ohio communities.

- 2 respondents identified themselves as representing health-related organizations (one local public health department and one health advocacy coalition). Other than answers to some of the initial questions about the respondents themselves, neither of these respondents provided any data. No qualitative questions were answered. Note that employees of public health departments are also included among the respondents representing some of the 6 communities for which findings are presented above.

I. Strengths of Low-Income and Homeless Communities

Two categories of strengths on which solutions can build were mentioned:

- Willingness to collaborate, use protective practices, and help each other

- Trusted partners and relationships

  - Referral networks and existing referral partnerships

  - Community resources

  - Health departments

  - Food pantries and foodbanks are trusted – known and available, meeting the community's basic needs

Topic A: Hygiene

Topic B: Social Distancing

Topic C: Mask-Wearing and
Personal Protective Equipment (PPE)

Topic D: COVID-19 Testing

Topic E: Contract Tracing

Topic F: Isolation

Topic G: Self-Quarantining

Topic H: Healthcare Access

II. Key Barriers to Using Public Health Strategies to Minimize the Impact of COVID-19 on Low-Income and Homeless Communities

These barriers were mentioned by multiple respondents as affecting the ability of homeless and low-income individuals to use public health strategies to minimize the impact of COVID-19. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

1. Lack of access to supplies, and lack of income to purchase supplies

This barrier affects low-income and homeless individuals in many ways, particularly in terms of using hygiene and PPE (Topics AC). Supplies necessary for COVID-19 protection but hard to access include:

- Cleaning supplies

- Hand sanitizer

- Gloves

- Masks

- PPE

- Food

2. Challenges related to housing

- Homelessness

- Congregate living situations, including shelters

- Living in close quarters

- Multiple families in single homes

- Multiple generations in single homes

- Living with many other people to share expenses

- Living with people who are not family

- Couch surfing – moving around to live with different people and families

These housing situations affect low-income and homeless individuals in many ways. Specifically, they:

- Make social distancing difficult

- Make isolation impossible

- Mean that individuals may have no place to store/keep items like PPE

- Mean that homeless/transient individuals may be hard to reach for contact tracing procedures

- Make it impossible to use separate bathrooms or facilities, or mean that individuals lack access to facilities altogether

- Make it impossible to isolate or self-quarantine

- Cause individuals to avoid sharing symptoms they are experiencing or concerns due to these fears; causes worry among others that they may be exposed but unaware

"[People are] doubling and tripling up due to a lack of money for rent."

"Individuals living on the street need to have access to showers and laundry facilities."

"Those living in congregate settings or multiple family households cannot isolate away from healthy people. [This] causes individuals to fear losing their place to stay and being displaced if they have to isolate, self-quarantine, or have COVID."

3. Lack of transportation

This barrier is relevant to many topics, including hygiene, social distancing, PPE, testing, and healthcare access (Public Health Strategy Topics ABCDH).

- Not having transportation forces ride sharing

- Not having transportation also limits individuals' ability to access testing sites, access healthcare locations, and procure supplies

4. Limited access to healthcare

- Limited access to hospitals, clinics, and doctor's offices

- For many low-income people, there are no primary care sites nearby

- Many have no active insurance coverage and no money to pay for care or medications.

5. Unavailability of testing

- This population was not initially prioritized for COVID-19 testing

- Testing remains non-existent in low-income communities, both urban and rural

- A medical order is necessary to get tested; this is not accessible if healthcare is not accessible

- There are limited testing sites and kits

6. Lack of trust in government and healthcare facilities

- Fear of being tested

- Fear of displacement from shelter if suspected, tested, or confirmed to have COVID-19

- Fear of accessing healthcare

- Fear of disclosing information to contact tracing procedures

"[Some people] are withholding information needed for contact tracing due to lack of trust."

7. Limited access to phones

Phone calls are the primary mode of contact for contact tracing, but some low-income and homeless people:

- Don't have a working phone

- Are concerned about using up limited minutes

- Are reluctant to give out personal information over the phone

- Are unable to recall who they have been in contact with

- Can be hard for contact tracers to reach

- Cannot use telehealth - which constitutes much of healthcare access during this time - due to limited access to technology and phones

8. Caregiving responsibilities

- Low-income individuals may have responsibilities to care for adults and/or children

- Some are single parents

- Caregiving makes social distancing difficult

- Parents who need to isolate or self-quarantine may have no back-up care options for their children

Other Barriers

These additional barriers were reported by respondents representing low-income and homeless populations, although less commonly than those in the 8 categories described above.

- Upstream barriers: poverty, economic insecurity, food insecurity, social barriers, physical barriers, mental health challenges

- Lack of public interest in examining COVID-19 exposure and spread in low-income communities

- Resources that were available pre-COVID-19 are no longer available, like community kitchens, libraries, The Free Store, etc.

- Having public places shut down makes it harder to socially distance

- Racial profiling, which negatively impacts ability to trust the police and ability to use face coverings

III. Key Ideas (Solutions) to Address Barriers and Minimize the Impact of COVID-19 on Low-Income and Homeless Communities

These categories represent the potential solutions suggested to help low-income and homeless individuals use public health strategies to minimize the impact of COVID-19. These ideas were mentioned by multiple respondents and are each relevant to multiple public health strategies. Selected quotes exemplify the stories and ideas of *Needs Assessment* respondents.

1. Supply free resources

- Personal care & hygiene projects

- PPE

- Money to cover living expenses during long periods of unemployment

- Hand sanitizer

- Masks

- Testing

- Medications

"The statewide network of foodbanks, food pantries and shelters had to beg and plead to Ohio Emergency Management to secure FEMA PPE mask and glove supplies to equip employees, volunteers, and national guard members who are serving on the front line – masks and gloves were being reused and recycled until we secure[d] the supply and [there is] not enough to distribute to low income Ohioans."

2. Use and partner with public and community resources to address barriers

- Use public community locations, drive-through, and walk-through options to provide supplies, testing

- Do testing at mass food distribution sites

- Provide testing in places local to low-income and homeless communities

- Have congregate living sites gather some information needed for contact tracing upon admission

- Do contact tracing at job and family services

- Clearly identify these community spaces as available to help prevent COVID-19

- Utilize community health centers to provide COVID-19 response, since they are already serving vulnerable local populations

"Why aren't public health departments testing at mass food distribution sites?"

3. Use community members to help

Use trusted community members and providers to distribute education, conduct contact tracing, train individuals in the use of protective options.

4. Provide education about a variety of self-protective options

5. Provide housing options

Locations should be chosen where people will feel safe and comfortable, and could include:

- Single family housing

- Separate temporary housing

- Safe places to go to isolate – like Columbus SIQ shelter

- Free temporary places to self-quarantine, such as hotel rooms

6. Provide private transportation

Other Ideas

These additional ideas were reported by respondents representing low-income and homeless populations, although less commonly than those described above.

- Individuals living on the street need access to showers and laundry facilities

- Create hand-washing stations in known homeless camp areas

- Provide resources and options that promote social distancing

- Provide more widespread testing for everyone, even those not in priority populations

- Provide COVID-19 tests without a medical order

- Conduct in-person contact tracing interviews

- Provide access to technology & phones

- Increase outreach from mental health and substance use treatment providers to inform individuals how to access care they need

IV. Trusted Community Resources and Linkages for Low-Income and Homeless Populations

Respondents also identified many trusted community resources – including categories of organizations, individual organizations, and individuals. Categories of organizations most commonly included:

- For health information, healthcare, and social services:

  - Southeast Inc.

- For health information and social services:

  - Foodbanks

  - Food pantries

  - Community kitchens

  - Non-profit, community-based, and faith-based organizations

  - 211 Hands on Central Ohio

  - Faith Mission shelter

  - Metro libraries

  - Local churches

  - The Free Store

  - Moms2B

  - OSU College of Public Health

- For healthcare and health information:

  - Federally Qualified Health Centers (FQHCs)

  - Free clinics

  - Local hospitals

  - Lutheran Social Services of Central Ohio

  - Health Center at Faith Mission

  - Primary One Health Centers

  - Heart of Ohio

  - Lower Lights Health Center

  - Equitas Pharmacy

- For social services:

  - Locally-based trusted and known service providers

  - Shelters

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

Introduction: The Continuum of Public Health Strategies to Minimize the Effects of COVID-19 on Ohio's Populations

The Centers for Disease Control and Prevention (CDC), along with the World Health Organization (WHO) and other public health agencies, recommend a set of evidence-based practices to protect individual and populations from COVID-19. These eight core strategies include social distancing, mask wearing and the use of personal protective equipment (PPE), a set of hygiene practices, COVID-19 testing, contact tracing, isolation of diagnosed individuals, self-quarantine of exposed individuals, and healthcare access as needed.

Hygiene (Topic A)

Basic hygiene practices are commonly recommended to prevent the spread of many infectious diseases. These practices include washing hands with soap and water for a minimum of 20 seconds, disinfecting frequently touched surfaces such as doorknobs, phones, or tables, and covering one's coughs and sneezes. The CDC recommends each of these practices to aid in preventing the spread of COVID-19 (CDC, 2020f). Numerous studies have demonstrated that individuals infected with COVID-19 can contaminate surfaces and objects. It has also been shown that COVID-19 can survive on surfaces and objects for differing periods of time, ranging from hours to days depending on the type of surface (Chia et al., 2020; Guo et al., 2020; Ong et al., 2020; Pastorino et al., 2020; Zhou et al., 2020). Indirect transmission of COVID-19 can occur by touching surfaces or objects that have been contaminated, and then touching one's mouth, nose, or eyes. Hygiene practices such as hand washing and disinfecting frequently touched surfaces therefore constitute important approaches for limiting indirect transmission of COVID-19.

Social Distancing (Topic B)

The most common mechanism of COVID-19 transmission is airborne spread of the respiratory droplets of an infected person. Respiratory droplets are produced when an infected person coughs, sneezes, or talks (Chan et al., 2020; Ghinai et al., 2020; Hamner et al., 2020; Liu et al., 2020; Pung et al., 2020). These droplets can be inhaled or land in the mouths or noses of others. Respiratory droplets can also land on objects, surfaces, or hands around an infected person, and picked up by others who can then become infected when they touch their own eyes, nose, or mouth. Many studies have also demonstrated that infected individuals can infect others before they show symptoms themselves (Arons et al., 2020; Furukawa et al., 2020; Jang et al., 2020; Kimball et al., 2020; Tong et al., 2020; Wei et al., 2020).

Social distancing is therefore a critical strategy in preventing the spread of COVID-19. The CDC recommends that people stay at least 6 feet away from others who do not live in the same household, both indoors and outside (CDC, 2020d). Limiting close contact with others reduces the chances of contracting COVID-19 via contact with both respiratory droplets from infected individuals and contaminated surfaces and objects. The strategy of social distancing has been utilized since long before the COVID-19 pandemic, including during the Spanish Flu of 1918 and during the 2003 SARS outbreak (Bell, 2004; Tomes, 2010). Social distancing measures are also one of the CDC's community mitigation guidelines for the prevention of pandemic influenza (Qualls et al., 2017).

Mask-Wearing and Personal Protective Equipment (PPE) (Topic C)

Public health authorities recommend that all members of the general population wear cloth face coverings in public settings and when around people who do not live within their household. This is especially recommended when social distancing strategies cannot be maintained (CDC, 2020e). There is growing evidence that cloth face coverings can effectively prevent the spread of COVID-19 by creating a barrier that blocks respiratory droplets from an infected person so they do not travel into the air (Aydin et al., 2020; Davies et al., 2013; Howard et al., 2020; Konda et al., 2020; Leung et al., 2020; Ma et al., 2020). Because we now know that COVID-19 can be spread by those who are pre-symptomatic or asymptomatic, it is important for all people to wear face coverings.

The evidence that wearing masks is effective in preventing the spread of COVID-19 has also been supported by reports of cases where symptomatic individuals wearing face coverings did not infect individuals with whom they came into close contact. In one case an asymptomatic but infected man wearing a mask took a 15-hour flight, and all 25 people who sat closest to him subsequently tested negative (Schwartz et al., 2020). In another case, two hair stylists had close contact with 140 clients while showing symptoms of COVID-19; these hair stylists wore masks and none of their clients tested positive (Frankel, 2020). In addition to this evidence, one study found that the COVID-19 growth rate slowed after states implemented a mask mandate (Lyu & Wehby, 2020), and another found that countries with cultural norms or government policies favoring mask wearing had lower death rates (Leffler et al., 2020).

Although mask wearing is an important strategy to prevent the spread of COVID-19, there are certain populations and situations in which mask-wearing is not recommended. Face coverings should not be worn by children younger than 2 years old, anyone who has trouble breathing, or anyone who is unconscious, incapacitated, or otherwise unable to remove the face covering on their own. There are also situations in which it may not be possible to wear a face covering due to safety concerns or physical or mental health conditions. Face coverings can be challenging to wear for deaf and hearing impaired people who lipread; people with intellectual or developmental disabilities, mental health conditions, or sensory sensitivities; young children; people engaging in high intensity activities; and people working in a setting where a face covering could increase the risk of heat-related illness. In these situations, the CDC recommends considering adaptations and alternatives to increase the feasibility of wearing a face covering. If it is not possible to wear one, it is important to make sure other measures are taken to reduce the risk of spreading COVID-19, such as social distancing, hand washing, and disinfecting (CDC, 2020e).

COVID-19 Testing (Topic D)

There are currently two types of tests associated with COVID-19: viral testing and antibody testing. Viral tests are used for diagnostic purposes. During viral tests, samples are taken from the respiratory system (most commonly using nasal swabs, but increasingly utilizing saliva samples instead) and checked to determine whether the virus that causes COVID-19 is present. Currently, the CDC recommends viral testing for all individuals with symptoms consistent with COVID-19, as well as all close contacts of persons with a COVID-19 infection (CDC, 2020g). People with COVID-19 have reported a wide range of symptoms ranging from mild to severe illness. The most common symptoms associated with COVID-19 are: fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of tase or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea (CDC, 2020h). Viral testing is an important strategy in preventing the spread of COVID-19 because other protective strategies such as contact tracing, isolation, and quarantine can properly take place once a specific individual is known to be infected with the virus. COVID-19 testing is also a key strategy for public health surveillance. Tests are used to identify COVID-19 infections, thereby locating areas where COVID-19 is spreading; this allows public health agencies to track geographical and other trends in the distribution of disease, and to provide insights about the impact of COVID-19 over time and by location (CDC, 2020g). Antibody tests differ from viral tests in that they are used to determine if an individual was potentially previously infected with COVID-19. The CDC, however, does not recommend the use of antibody tests for diagnostic purposes and also does not recommend using antibody tests to make decisions about issues such as returning to work or grouping people in congregate settings (CDC, 2020i).

Contract Tracing, Isolation, and Quarantine (Topics E, F, G)

All the public health strategies here are interrelated; contact tracing, isolation, and quarantine are a particularly closely connected set of interventions. Contact tracing is the process of identifying close contacts of confirmed or probable COVID-19 patients, warning them that they may have been exposed, and providing them with information about how they should move forward – such as by getting tested or self-quarantining (CDC, 2020j). The strategy of contact tracing is not new to COVID-19, and has long been utilized by local and state health departments to help prevent the spread of infectious diseases such as tuberculosis. Contact tracing has been shown to be highly effective in controlling the spread of COVID-19 when completed quickly and thoroughly (Keeling et al., 2020).

Isolation refers to the separation of individuals infected with COVID-19 from those who are not infected. The CDC recommends that both individuals who are symptomatic and individuals who are asymptomatic but have tested positive should isolate. Isolation procedures include avoiding contact with other members of the household, staying in a separate room, using a separate bathroom, and not sharing items such as cups or towels. According to the CDC, isolation for those with symptoms can end after all three of these criteria are met: 1) at least ten days since symptoms first appeared, 2) at least 24 hours with no fever without medication, and 3) symptoms have improved. For those without symptoms but who have tested positive, isolation can end after ten days have passed since being tested (CDC, 2020k).

Quarantine is used to keep those who might have been exposed to COVID-19 away from others. The CDC recommends that anyone who has been in close contact with someone who has COVID-19 should self-quarantine. Individuals for whom quarantine is recommended are advised to stay home for 14 days after the last contact with a person infected with COVID-19. Because symptoms may take 2-14 days to appear, the CDC recommends these quarantined individuals remain in quarantine even if they test negative or feel healthy, until the 14 days are complete. In addition to staying home for 14 days, individuals who are quarantining should also monitor themselves for symptoms of COVID-19 such as a fever or cough, and if possible stay away from others (CDC, 2020l).

Although each of these strategies are important individually, contact tracing, isolation, and quarantine are most effective when utilized together. One study that examined the effectiveness of various combined isolation and contact tracing strategies estimated that transmissions of COVID-19 could be reduced by 64% by consistently utilizing self-isolation, household quarantine, and contact tracing of all contacts. This combination of strategies produced the greatest estimated reduction of COVID-19 transmission, and reduced transmission more effectively than isolation alone or isolation plus household quarantine (Kucharski et al., 2020).

Healthcare Access (Topic H)

Access to healthcare is always an important issue but holds especially crucial implications during a global pandemic such as COVID-19. Having a usual source of care and regular healthcare provider play important roles in the ability of individuals to receive preventive and screening services such as flu shots or clinical breast exams (Blewett, et al., 2008). Having access to primary care is particularly critical, because it is associated with many other determinants of health. These include enhanced access to healthcare services, lower rates of hospitalization, and less frequent emergency department visits; primary care is also associated with a range of improved health outcomes and helps counteract the negative impact of poor economic conditions on health (Shi, 2012). Having health insurance is also consistently found to be a key factor in improving both health and health care utilization (Freeman et al., 2008).

During the COVID-19 pandemic, access to healthcare is likely to be significantly impacted. When the first measures were implemented to reduce the spread of COVID-19, many hospitals and healthcare providers across the country limited non-essential services. We have also seen an unprecedented number of people lose their jobs due COVID-19: 41 million Americans newly applied for unemployment between the start of the outbreak in March 2020 and May 2020 (Rugaber, 2020). Because most health insurance coverage in the United States is gained through an employer, these significant job losses have also negatively impacted health insurance coverage. Although it is too soon to know the full extent of these impacts, one report estimates that nearly 27 million people may lose their employer-sponsored insurance due to job loss during COVID-19 (Garfield et al., 2020).

All of these factors are likely to have long term impacts on the utilization of preventative care due to interruptions in access and the financial difficulties many are facing. As a single example, a CDC report found that the rate of childhood vaccines has fallen during the COVID-19 pandemic despite CDC guidance emphasizing the importance of continuing routine well-child care and immunization during the pandemic (Santoli et al., 2020). In addition to preventative care, decreases in healthcare access due to COVID-19 have also negatively impacted treatment for chronic diseases such as cancer. Some patients with cancer have had surgeries delayed or are receiving less intense treatments to preserve clinical capacity for COVID-19 patients (Sharpless, 2020). Again, it is likely that we will not see the full effects of these decisions until further in the future. Continuing access to mental health and addiction services is also crucial during the pandemic, particularly since COVID-19 has already been shown to have negative mental health and substance use consequences. A recent poll found that 45% of adults in the U.S. reported that COVID-19 has negatively impacted their mental health (Kirzinger et al., 2020). It is likely this will only increase as the pandemic continues. Isolation, social distancing, and job loss, along with the general negative impact of the pandemic on mental health, are all potential triggers for the development, or relapse, of a substance use disorder. Those who are in the process of treatment for an addiction have been faced with the closing of private clinics and detox centers, and many undergoing rehabilitation programs have had interruptions in their medication supply as well as appointments with their therapists (Dubey et al., 2020).

One strategy that has been widely used as an attempt to preserve access to healthcare during COVID-19 is the use of telehealth or telemedicine. The Peterson-Kaiser Family Foundation Health System Tracker found that in 2018, only 2.4% of large employer health plan enrollees who had an outpatient office visit had at least one telemedicine visit (Rae et al., 2020). A recent National Tracking Poll, however, found that 23% of adults have used telehealth services since the beginning of the COVID-19 pandemic. The need for telehealth services created by COVID-19 has led to significant insurance and policy changes. A few examples of these changes include health insurance carriers increasing coverage for telehealth visits as well as the number of visits that can be paid for, the federal government waiving certain restrictions on Medicare coverage of telehealth services, and the U.S. Department of Health and Human Services waiving potential penalties for HIPAA violations against healthcare providers that serve patients in good faith – which allows accessible services such as FaceTime or Skype to be used for telehealth purposes (Weigel et al., 2020). Although telehealth services may increase access to care for some during this pandemic, telehealth itself creates its own unique access barriers. In 2017, one study showed that 26% of non-elderly adults with

Medicaid never used a computer, 25% did not use the Internet, and 40% did not use email (Garfield et al., 2019). There are likely additional issues among rural and elderly populations. In 2019, one study found that 21% of rural Americans reported problems with access to high-speed Internet (Harvard T.H. Chan School of Public Health, 2019), and another study found that 27% of U.S. adults aged 65+ reported not using the Internet in 2019 (Anderson et al., 2019).

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

Hygiene (Topic A): Integrated Findings Across Population Groups

In the findings below, key Ohio population groups that repeatedly mentioned each item are indicated by the following abbreviations:

BA: Black and African American   **AS:** Asian and Asian American   **RU:** Rural

HL: Latino and Hispanic   **IR:** Immigrant & Refugee   **DI:** Living with Disabilities

Key Barriers to Using Hygiene

These categories represent the barriers that most commonly challenge the ability of key Ohio populations to utilize hygiene as a public health strategy to help minimize the impact of COVID-19.

Lack of access, availability, and cost

Hygiene products are generally difficult to obtain within all the populations studied; this includes cleaning and disinfecting supplies as well as masks (BA, AS, DI, HL, IR, RU). Some communities also lack access to laundry facilities and warm running water (BA, IR, RU). Hygiene products are often too expensive for low-income individuals to buy; their general un-affordability is also exacerbated by price gouging and by the fact that many individuals lack credit cards and therefore cannot purchase items online (BA, AS, DI, HL, IR, RU). Local stores often do not have these items in stock (BA, AS, HL, IR), and individuals don't always know where to look for them (BA).

Mistrust of government and healthcare systems

For several populations studied, mistrust of government, healthcare providers, and/or healthcare systems impede community members' ability to learn about or implement public health strategies to minimize the effects of COVID-19 (HL, IR, RU). The origins of this mistrust come from several directions, including histories of healthcare providers and researchers abusing Black and minority populations (BA, IR), fear that health and healthcare interactions might involve community members with law enforcement or immigration officials (IR, HL), and general distrust of government leaders and rules (RU). Additional elements exacerbate mistrust, including: lack of racial and ethnic diversity among healthcare providers (IR), confidentiality and privacy concerns (RU), not trusting healthcare providers to act in their patients' best interests (RU), and fear of being shamed by public officials or healthcare providers (e.g.: for only having one bathroom) (HL).

Barriers related to work and school

The need to work, and conditions at work, constitute significant barriers that affect the ability of individuals in all populations studied to practice protective hygiene (BA, AS, DI, HL, IR, RU). Many of these individuals work in low-wage jobs and must go to work to support themselves and their families (BA, AS, DI, HL, IR, RU). Many are essential workers in jobs that require considerable face-to-face contact with the public or other workers, and do not offer the option to work remotely or from home (BA, AS, DI, HL, IR, RU); in Asian communities these are often healthcare jobs (AS). Work attendance is often mandatory with little or no time off or sick time arrangements (BA, AS, DI, HL); staying home would risk job loss or loss of benefits (BA, HL, RU). Avoiding close contact is often impossible at work, and many workplaces do not enforce protective hygiene guidelines (BA, AS, DI, HL, IR); some jobs (e.g.: cashiers) make frequent handwashing or other hygiene practices impossible (DI, HL, IR, RU). Schools raise related issues including limitations on how often students can wash hands, children coming to school sick because their parents have to work, and students changing classrooms often throughout the high school day (BA).

Language and communication barriers

Language and communication barriers limit the ability of several Ohio communities to obtain hygiene-related information and resources (AS, HL, IR, DI). Information about protective hygiene practices and how to use them is usually presented only in English, which severely limits their benefit to non-English speakers and those with low English proficiency (AS, HL, IR). Professional translators and interpreters for individuals with disabilities are often unavailable when hygiene-related information is being shared; family members and children are limited in their availability and skill at translating information (AS, HL, HR, DI). In addition to large gaps in understanding of protective hygiene, confusion, misinterpretation, and fear may also result (AS).

Housing challenges

Within all the populations studied, housing conditions limit community members' ability to use protective hygiene practices (BA, AS, DI, HL, IR, RU). Housing units are often small and densely crowded (BA, AS, DI, HL, IR, RU), serving as homes to many people, several families, and/or multiple generations of a family (BA, AS, HL, IR). Sharing bathrooms, kitchens, bedrooms, and beds are particular challenges to hygiene and disinfection (BA, HL, IR, RU). These conditions are particularly true of low-income, immigrant, and refugee households (AS, IR). Many neighborhoods are also densely populated, making it difficult to avoid close contact with sick people and keep frequently touched surfaces disinfected (BA). Congregate housing arrangements impede protective disinfecting and avoiding close contact with sick people; these include apartments, public housing, shelters, halfway houses, and prisons (BA, DI, RU). Individuals in all communities studied lack access to alternate temporary housing or shelter for sick people or confirmed COVID-19 cases (BA, AS, DI, HL, IR, RU). Homelessness and housing instability also create lack of control over hygiene conditions (BA, DI, RU); migrant agricultural workers often live in camps and share bathrooms (HL). Necessary caregivers cannot avoid close contact with the individuals for whom they care (AS, DI).

Lack of personal transportation

Lack of personal transportation means that many members of the community rely on public transportation to get to work and move around the community, which impedes the use of protective hygiene practices and social distancing (BA, RU). The transportation that is available for shopping and moving around the community is sometimes too expensive to use (RU).

Cultural values and norms

For many of the populations studied, community norms and values inhibit the use of protective hygiene strategies that involve avoiding close contact and maintaining disinfected surfaces (AB, AS, HL, IR). Many cultures and communities emphasize collective and communal connections, creating the desire to maintain social functions, in-person contact, and physical touching (BA, AS, DI, HL, IR). Close contact is important in times of celebration, when offering support, and when engaging in religious life (BA, AS, HL, IR). Limiting normal social and physical contact can trigger feelings of isolation, rejection, and/or stigma (AS, DI, HL, IR), particularly for individuals and communities who have experienced considerable past trauma (AS, DI, IR). In rural communities, many do not believe COVID-19 is a real problem, is a problem in their areas, or will affect them personally; many also resist listening to government advice and feel pressure not to.

Caregiving responsibilities

Family members often serve as caregivers for loved ones. Caregiving roles – including for disabled individuals, children, and the elderly – impede avoiding close contact and using protective hygiene practices (BA, AS, DI). These relationships also mean that caregivers are responsible for protecting both themselves and those for whom they care (DI).

Lack of health information

Some members of the populations studied lack up-to-date information about specific hygiene practices that offer protection from COVID-19 (BA, DI, HL, IR, RU). Low health literacy and low general levels of education exacerbate this challenge (RU).

Barriers specifically relevant for people with disabilities

Disabilities can create direct barriers to using protective hygiene practices (DI). Some individuals require touch to communicate, are unable to cover their coughs or sneezes, and/or habitually put hands to mouth or touch their eyes. Individuals with disabilities may also rely on others for help with handwashing, cleaning, personal care, activities of daily living, and more. Much of caregiving requires close proximity and physical touch. Reliance on caregivers means that caregivers must understand and follow protective guidelines.

Commonly Proposed Solutions to Facilitate Use of Hygiene

These categories represent our respondents' commonly proposed solutions to the barriers that impede use of COVID-related hygiene practices by Ohio populations.

Provide resources directly

Directly providing the resources and supplies to which communities lack access would improve the use of protective hygiene (BA, AS, DI, HL, IR, RU). Specifically, this could involve making masks, gloves, and cleaning products available free or at reduced cost (BA, AS, DI, HL, IR, RU). Direct financial supports – including unemployment, emergency pay, stimulus payments, increased funding for disability service providers – would facilitate community members' ability to purchase their own supplies (BA, DI, HL, IR, RU). In addition to making supplies more available at sites where they are normally found – such as grocery stores and neighborhood pantries — community organizations and public agencies could distribute supplies directly to homes or community sites (BA, AS, DI, HL, RU). Touchless hand sanitizer could be made widely available in public places (BA).

Partner with trusted community organizations and organizations

In order to most effectively address barriers to use of protective hygiene practices, services, information, and resources should be provided by trusted community members and sites (BA, AS, HL, DI, IR, RU). These might include community organizations and their leaders, religious leaders and organizations, community youth, and community health workers (BA, AS, HL, DI, IR, RU).

Improve employment policies

Improving workplace policies could make individuals safer; these could involve ensuring that workplaces are following hygiene guidelines and allowing employees to do so, and offering employees more penalty-free options for sick time or working from home (BA, IR). Caregivers for individuals with disabilities should be considered essential employees (DI).

Improve and create housing options

Improving housing options would allow for more systematic use of protective housing among some population groups (BA, HL, DI, IR). These steps could include identifying interim housing options where sick people could distance themselves from others they live with (BA, DI, HL, IR). Options for this might include hotels or motels, unfilled public housing units, convention centers, schools, and emergency evacuation locations. Direct financial assistance could also allow individuals to create these solutions for themselves (HL).

Increase and improve COVID-related education

High-quality, accessible education about hygiene practices would help several groups use these protective strategies (BA, AS, IR, RU). Community members would benefit from accessible educational information about proper handwashing, the importance of cleaning, and where/when/how to disinfect surfaces (BA, AS, HL, IR). The delivery of this information should be culturally relevant (BA, IR), available in multiple languages appropriate to each community (AS, HL, IR), comprehensible by individuals with limited literacy and/or health literacy (BA), and utilize terms and images that resonate with each community (BA, AS, IR). Many different modes can be used to deliver relevant information, including flyers, pamphlets, mailers, social media, community signage, YouTube videos, ethnic communication venues, discussion with individuals attending testing or healthcare sites, and special webinars or video events (BA, AS, HL, RU). Caregivers should receive education about how to use hygiene practices in their caregiving roles (DI).

Improve transportation options

Improvements to public transportation systems could help address hygiene barriers, both by making transportation itself safer, and by improving access to shopping and community resources. Improvements could include increasing the frequency of public transportation (BA), issuing free bus passes (BA), cleaning public transportation vehicles more often (BA), and adding plexiglass barriers in buses (BA).

Directly address disability-specific challenges

Directly involving people with disabilities in policy, planning, and educational efforts can help ensure that protective measures are designed or can be adapted for individuals with various disabilities (DI). Individuals caring for people with disabilities need specific training related to protective hygiene practices and educational resources (DI).

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

Social Distancing (Topic B): Integrated Findings Across Population Groups

In the findings below, key Ohio population groups that repeatedly mentioned each item are indicated by the following abbreviations:

BA: Black and African American   **AS:** Asian and Asian American   **RU:** Rural

HL: Latino and Hispanic   **IR:** Immigrant & Refugee   **DI:** Living with Disabilities

Key Barriers to Using Social Distancing

These categories represent the barriers that most commonly challenge the ability of key Ohio populations to utilize social distancing as a public health strategy to help minimize the impact of COVID-19.

Housing challenges

For many individuals in all the populations studied, housing conditions make social distancing difficult (BA, AS, RU, IR, HL, DI). Many live in crowded situations, which often house many individuals, multiple families, and multiple generations (BA, AS, RU, IR, HL, DI). Many also live in densely populated neighborhoods or congregate housing arrangements - such as apartments, halfway houses, prisons, shelters, migrant camps, and public housing (BA, AS, RU, HL, DI). Low-income, immigrant, and refugee individuals frequently live in very close quarters where social distancing is not possible (BA, AS, RU, IR, HL).

Work-related challenges

Within all the populations studied, many individuals must go to work to provide for their families and maintain a basic income (BA, AS, RU, IR, HL, DI). Many are employed as essential, service, and/or healthcare workers and are frequently required to be in close contact with other workers, customers, and/or the public (BA, AS, RU, IR, HL, DI). Allowing, encouraging, or requiring social distancing is up to workplaces and supervisors (BA, AS, RU, IR, HL, DI).

Cultural norms, values, and beliefs

For many of the populations studied, cultural norms and values prioritize close connection of families and communities (BA, AS, IR, HL). These forms of connection include maintaining in-person contact, social support through physical touching, and attendance at large-group social events and religious services where social distancing is difficult (BA, RU, IR, HL). Social distancing may create feelings of isolation, trigger stigma, and/or challenge individuals' mental health (AS, IR, RU, HL). Some individuals (particularly men) may fear looking weak if they practice social distancing (BA). Many members of rural communities resist social distancing because they do not believe COVID-19 is real or will affect them personally, do not believe social distancing is necessary unless individuals are sick, have anti-science and anti-government attitudes, and/or experience social pressures to reject public health advice (RU).

Lack of personal transportation

Within each of the populations studied, many individuals lack personal transportation (BA, AS, RU, IR, HL, DI). They therefore rely on public transportation and shared vehicles to get to work and move around the community; these methods of transportation impede the use of social distancing (BA, AS, RU, IR, HL, DI).

Lack of health information and limiting health beliefs

Many members of all the communities studied lack up-to-date health information relevant to COVID-19, resulting in lack of comprehension of when social distancing is needed and why it is important (BA, AS, RU, IR, HL, DI). Some individuals do not take the virus seriously (BA, RU) or believe they will contract it regardless of what they do (BA). Social distancing is further undermined by witnessing many people not respecting social distancing (BA, RU), by being exposed to misinformation and false news (AS, RU, IR), when community or religious leaders do not respect the need for social distancing (RU), and when information does not come from trusted, local sources (RU).

Language and cultural barriers to education

Information related to COVID-19 and social distancing is often available only in English, which severely limits its usefulness for individuals with limited English proficiency and literacy (IR, HL). In addition, education is often presented in ways that are not culturally appropriate (IR, HL).

Caregiving needs and responsibilities

Many members of the studied populations are caregivers to children, elderly individuals, or other family members, which makes social distancing difficult (BA, RU, IR). Many individuals with disabilities require close contact with caregivers and rely on them to follow protective guidelines (DI).

Lack of technology

Lack of access to smart phones, computers, Internet, broadband, and WiFi limits the ability of many individuals to utilize remote and virtual substitutes for normal activities (such as work, church, and medical appointments) (BA, DI).

Other barriers - relevant to specific populations

- Some individuals need to access social service agencies and other venues where social distancing is not in place (BA)

- Adequate social distance can be hard to judge (RU)

- Refugees who have survived other communicable diseases may feel COVID-19 is unlikely to be a threat (IR)

Commonly Proposed Solutions to Facilitate Use of Social Distancing

These categories represent our respondents' commonly proposed solutions to the barriers that impede use of social distancing by Ohio populations.

Provide direct supports to communities and families

In all the populations studied, alleviating poverty and providing direct financial supports (food, supplies, income) could improve individuals' ability to control the circumstances in which they work and spend time, and therefore to use social distancing and other protective measures (BA, AS, RU, IR, HL, DI). Offering new housing options – for free or at low cost – could offer individuals and families more space to allow distance between them (BA, RU, IR, HL, DI). Pauses in rent, utilities and other major expenses could help as well (BA, IR).

Increase and improve COVID-related education

High-quality education and information could increase the use of social distancing by several of the populations studied (BA, AS, RU, IR, DI). These educational efforts should cover topics such as the severity and real threat of COVID-19, the importance of social distancing, methods of social distancing within the home, and creative ideas for staying connected while distancing (BA, AS, IR, DI); other helpful topics would include how to stay on course for the long term (BA) and the fact that social distancing is not meant to limit anyone's rights (RU). Educational messages should be comprehensible by individuals with low education levels or low health literacy, and presented with lots of visual aids (BA, RU). Interpretation for individuals with disabilities should be provided (DI). Messaging should be presented in culturally-relevant ways and represent diverse populations (BA, IR). Direct efforts should be made to dispel false information and misinformation (IR).

Address language barriers

Educational information should be provided in multiple languages and dialects appropriate for local populations (IR, HL). Updates and advice from the Governor's office should be translated promptly (IR). Individuals can be hired to translate or provide education in the languages of their communities (HL). General provision of English education would also help alleviate health-related language barriers in the long term (IR).

Enforce public and workplace policies

Ensuring that workplaces follow state and public health guidelines would help many individuals practice social distancing (BA, IR). This would include requiring and enforcing social distancing within businesses and organizations for both employees and customers (BA, IR). Making it mandatory for employers to allow employees to work from home without fear of retaliation or job loss would also facilitate social distancing (RU, IR). Social distancing guidelines should also be made mandatory in public spaces (AS). Large community events should be limited (RU). Stricter policies that keep businesses closed and require individuals to stay at home should stay in place until the state is truly ready to re-open safely (BA).

Partner with community organizations, leaders, and members

Outreach and education should be offered by, and facilitated through, trusted members and leaders of communities (IR, HL), and through community-based organizations (HL). Individuals who come from and look like the communities they serve can help disseminate information and build trust in public health interventions (IR, HL). In some cases, public health authorities must first earn the trust of community leaders (HL).

Improve access to technology

Improving free or low-cost access to technology would allow more individuals to use virtual and remote options for work, church, healthcare, and other social interaction (RU). Interpretive technologies would also increase access to information for individuals with disabilities (DI).

Improve transportation options

Creating public transportation options that allow for social distancing, and/or offering vouchers or financial support could help individuals practice social distancing (BA).

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

Masks & PPE (Topic C): Integrated Findings Across Population Groups

In the findings below, key Ohio population groups that repeatedly mentioned each item are indicated by the following abbreviations:

BA: Black and African American   **AS:** Asian and Asian American   **RU:** Rural

HL: Latino and Hispanic   **IR:** Immigrant & Refugee   **DI:** Living with Disabilities

Key Barriers to Using Masks and PPE

These categories represent the barriers that most commonly challenge the ability of key Ohio populations to utilize PPE as a public health strategy to help minimize the impact of COVID-19.

Lack of access, availability, and cost

Individuals in all populations studied lack access to masks and PPE, both because they can be too expensive (particularly for low-income individuals) and because they are often not available in stores (BA, AS, RU, IR, HL, DI). Access is further limited by several factors, including: individuals may not know where to go to get these items (BA, RU), many individuals lack affordable transportation and are therefore limited in their ability to shop for these items (RU, IR), hoarding and price gouging raise prices further (BA, AS, DI), and supplies cannot be purchased with food stamps (RU). The supply of PPE is limited even for medical workers, caregivers, and in workplaces in general (AS, RU, IR, DI). Many community members do not know how to make masks or PPE (AS, DI) or do not have access to materials to do so (HL).

Racism and immigration dynamics

Mask wearing exposes some communities to particular risks due to racism (BA, AS, IR). Black people fear being perceived as criminals when wearing a mask, and the related possibility of police brutality; these fears are particularly acute for men (BA, IR). Asians and Asian Americans have been targeted in the U.S. due to perceptions that they are spreading COVID-19; mask-wearers in particular have been targeted, making individuals less willing to wear them (AS). In addition to directly limiting the use of masks, these barriers take an emotional toll (BA, AS, IR).

Cultural norms, values, and beliefs

Most of the populations studied highly value community connection, special events, and family support (BA, AS, RU, IR, HL). Wearing masks can be difficult when it is experienced as putting distance between people during family or community events, or while participating in religious services (BA, AS, RU, IR, HL). In rural communities, many individuals do not believe COVID-19 is real or could affect them personally, or that masks and PPE are effective; these beliefs are grounded in anti-science attitudes, conservative ideologies, and social pressures (RU). In some communities it may be difficult to make masks/PPE compatible with traditional cultural or religious garb; cultural barriers may particularly impede men from wearing masks or PPE (IR). Some fear being mocked for wearing PPE (HL). Some communities also value conservation and may re-use supplies until they are dirty (AS, BA).

Mistrust of government and healthcare systems

Mistrust of health advice from government and healthcare leaders stems from mistreatment of Black people and other minorities in the United States (BA, IR, HL). In rural communities, many individuals distrust protective advice from government leaders in general (RU).

Challenges related to work

Many members of all the populations studied must go to work, because they are essential workers and/or because they must provide for their families and maintain a basic income (BA, AS, RU, IR, HL, DI). Individuals' ability to protect themselves at work depends on their employers' policies and practices. Many work environments do not enforce mask-wearing guidelines, provide masks, or provide sufficient PPE for their employees (BA, AS, RU, IR, HL, DI). Migrant workers live in camps and close quarters without protective supplies (HL).

Gaps in education and health information

Community members often lack up-to-date health information relevant to COVID-19. This can impede the use of protective hygiene practices, including wearing masks and using appropriate PPE (BA, RU, HL, DI). Inconsistent messages about COVID-19 (who is vulnerable, how it is transmitted), masks, and PPE contribute to this problem (BA). Many individuals lack understanding of the severity and significance of COVID-19 (IR), or do not understand what PPE is, why it is necessary, when or how to use it, or how to clean it (BA, IR, DI). Witnessing many people not wearing masks undermines messages about their importance (BA), as does misinformation and inconsistent information (RU).

Language and literacy barriers

Information is often available only in English, making it inaccessible to those with limited English proficiency and/or literacy (AS, IR, HL). Low health literacy and low general education levels also limit the ability of some individuals to understand educational information about COVID-19, mask-wearing, and PPE (AS, RU, IR, HL, DI).

Caregiving

Wearing masks or PPE can be difficult and/or feel rude when individuals are serving as caregivers to children or other family members (BA, AS, RU, HL).

Other barriers – relevant to specific populations

- For those who have experienced trauma, mask-wearing can be a trigger (IR)

- Some experience sensations of discomfort wearing a mask, not liking how they look (BA, RU)

- PPE and masks are difficult to use for some people with disabilities, specifically deaf individuals or those unable to communicate without facial cues, those with motor issues that impede use, those who have trouble speaking or sensory issues, those with serious lung conditions and related physical impairments (DI)

- Masks aren't safe for some groups, and can become quickly wet for people with some disabilities (DI)

Commonly Proposed Solutions to Facilitate Use of Masks and PPE

These categories represent our respondents' commonly proposed solutions to the barriers that impede use of masks and PPE by Ohio populations.

Provide masks and PPE directly

Members of all the populations studied would benefit from free or low-cost provision of masks and PPE to individuals and households (BA, AS, RU, IR, HL, DI). Direct financial support would also help low-income individuals procure their own masks and PPE (BA, AS, RU, IR, HL, DI). In addition, it would help to increase the availability of masks and PPE at stores, work, and community sites (BA, AS, RU, IR, HL, DI). Public authorities should ensure that healthcare workers, in-home caregivers, and other appropriate workers have sufficient PPE (AS, RU, DI). Related steps that would help communities access masks and PPE include: providing N95 masks to those who work directly with the public; employing community members to make masks; making sure that masks are provided in culturally appropriate and attractive designs; and providing PPE for family members who need to isolate or self-quarantine (AS, RU, IR, DI).

Address racism, harassment, and violence

Addressing racism, harassment, and violence would help members of multiple studied populations feel safe utilizing masks and PPE as appropriate (BA, AS). This could include public officials condemning racist attacks and derogatory language (AS), prosecuting unnecessary calls to the police on Black people (BA), and reducing racial profiling (BA). Making mask use mandatory in public spaces would help community members feel safe using them (AS, RU).

Partner with trusted community members, leaders, and organizations

Educational messages, masks, and PPE should be provided by trusted community members and organizations (BA, AS, RU, IR, HL), and developed with community input (RU, IR, DI). Community health workers who look and speak like their communities can help distribute supplies and increase their use (BA, RU, IR, HL). Government and public health authorities need to earn the trust of community leaders and members (HL).

Increase, improve, and diversify education and information

Clear, comprehensible, and widespread education about the severity and real threat of COVID-19, the efficacy of mask-wearing and PPE, how to wear masks and use PPE, and where and how to obtain these resources would help all studied populations increase mask and PPE use (BA, AS, RU, IR, HL, DI). Educational materials should be available in multiple languages and comprehensible to those with low literacy or limited English proficiency (BA, IR, HL). Promptly translating messages from the Governor's office would be helpful (IR). Messaging should be culturally relevant and feature visual representations of diverse populations (BA, IR). Easy directions for making masks/PPE should also be made available (RU).

Improve employment policies

Public officials should ensure that workplaces are following state and public health guidelines with respect to use of masks and PPE (BA, IR). Workplace policies should encourage or require the use of masks, and employers should supply masks and PPE as needed for their employees (BA, RU, IR). Masks and PPE should be provided to all migrant camp workers (HL).

Directly address disability-specific challenges

Direct steps to address specific barriers to mask and PPE use would help people with disabilities in all communities (DI). This could include providing transparent masks for deaf individuals (and others for whom visual communication is essential) as well as workers with whom they interact regularly; providing less restrictive face coverings (shields).

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

COVID-19 Testing (Topic D): Integrated Findings Across Population Groups

In the findings below, key Ohio population groups that repeatedly mentioned each item are indicated by the following abbreviations:

BA: Black and African American **AS:** Asian and Asian American **RU:** Rural

HL: Latino and Hispanic **IR:** Immigrant & Refugee **DI:** Living with Disabilities

Key Barriers to Using COVID-19 Testing

These categories represent the barriers that most commonly challenge the ability of key Ohio populations to utilize COVID-19 testing as a public health strategy to help minimize the impact of COVID-19.

Limited availability, access, and cost

In general, the availability of COVID-19 testing is very limited (BA, HL, AS, RU, DI). Testing is particularly unavailable in the neighborhoods where our studied populations live, and in their local clinics (BA, IR, HL, RU). Rural populations also mentioned long waits for testing and results (RU). Testing is generally available without a doctor's referral, which is very difficult to get for those who don't have a source of healthcare (BA, HL, AS); this problem is exacerbated for those without health insurance and/or sufficient income to pay out-of-pocket (HL, AS). Testing is mostly available only through major healthcare providers, who will only test their own patients, and to whom some don't have access (IR, HL). Some respondents (BA in particular) noted being limited by the fact that medical professionals often refuse to test or recommend testing even when a patient has symptoms.

Lack of transportation

Many members of our studied populations do not have regular access to personal transportation, and public transportation often doesn't go to the locations where testing is available (BU, HL, AS, RU, DI). Drive-through testing is not usable for those who don't have a car (IR).

Limited information and limiting beliefs

Many respondents don't have accurate information about who can be tested and where to go (BA, IR, HL, RU); misinformation also exists in some communities (IR). Information about testing is also inconsistent, changes frequently, and can be confusing (BA, RU, DI). Rural residents may be particularly confused about what test results mean, may hold anti-science and conservative beliefs that stand in the way of testing, and may not believe that tests results are reliable (RU).

Racism and mistrust of public authorities and healthcare systems

The abusive history of experimental testing on minority and poor Americans, and the generally poor treatment of Black and African Americans by healthcare institutions, are significant barriers for some populations (BA, IR). Asians have experienced discrimination and been targeted specifically for "spreading COVID-19" and therefore avoid testing (AS). Some communities distrust government authorities in general, fearing that individuals who come in for testing might be reported to law enforcement or ICE, and/or face deportation (IR, AS), and that these consequences might extend to family and community members as well (IR). Some communities particularly distrust advice from government leaders (RU), worry that privacy and confidentiality will not be maintained (RU, DI), and/or fear the repercussions of a positive test (RU).

Language barriers

Information about testing is often available only in English even though many communities need to receive it in other languages (IR, HL, AS). Testing sites lack translation services and support for patients not proficient in English (IR, HL, AS, DI).

Stigma and fear

Some individuals fear the test itself (BA, IR, RU), or experience testing/COVID-19 stigma in their communities (IR).

Other barriers – relevant to specific populations

- Reluctance to test because it could mean losing work (AS)

- Some have resistant reactions that impede testing (DI)

Commonly Proposed Solutions to Facilitate Use of COVID-19 Testing

These categories represent our respondents' commonly proposed solutions to the barriers that impede use of COVID-19 testing by Ohio populations.

Improve availability of – and access to – COVID-19 testing

All communities studied would benefit from improved availability of COVID-19 testing (BA, HR, IR, AS, RU, DI), which should include loosening the criteria for testing in general (RU), allowing testing without a doctor's order (IR), and ensuring that both essential workers and family members of diagnosed individuals (AS) are able to be tested. Testing should be provided for free at community sites or through free clinics (BA, HL, IR, AS, RU, DI). Testing access could be improved by offering it at trusted community sites (e.g.: churches and community organizations), at work, and in mobile-van, walk-through, and drive-through sites (BA, HL, AS, RU, DI). Less expensive health insurance (AS, IR, DI) and testing in migrant health centers (HL) would help as well. Free transportation to testing would also remove important geographic access barriers (BA, IR, AS, RU).

Provide more information and education

Information about testing for the public should include why it is important, how it works, whether it hurts, and where to get a test (IR, RU, AS). Educational materials should be developed in multiple languages, and should be culturally relevant, include lots of visuals representing diverse communities (BA, IR). Many methods can be used to distribute this information, including webinars, video events, social media, posters and flyers available in community sites, and mailings. Testing staff should be educated about particular needs relevant to patients with disabilities (DI).

Partner with communities

Partnering with community members, leaders, and organizations can help improve use of COVID-19 testing for most of the communities studied (BA, HL, IR, AS, RU). Trusted community leaders, faith leaders, individuals hired from communities, local youth, and community organizations can help deliver educational information to these communities (BA, HL, IR, AS, RU). Community-based testing sites should be located where people are already comfortable going: churches, community events, grocery stores, and worship locations (BA, IR, RU, HL, AS). Trusted members and leaders of community should be involved in decision-making and help to shape policy.

Address language barriers

This includes providing educational information in multiple languages, and preferably in multiple dialects of Spanish (HL, IR, AS). Testing sites should have staff who speak multiple languages (HL, IR, AS).

Address immigration-related concerns

Public policies should ensure that getting tested or treated for COVID-19 will not involve any involvement of law enforcement or ICE, and will not affect immigration cases (HL, IR).

Ensure linkage to healthcare

Clear plans to ensure that individuals who test positive for COVID-19 can access medical treatment should be made and publicized (BA, AS).

Other recommendations - relevant to specific populations

- State, local, and OSU leaders should publicly condemn racism and anti-Asian violence (AS)

- Ensure – and publicize - the confidentiality of COVID-19 tests and results (RU)

- Testing sites should be aware of special needs associated with patients with disabilities, and allow trusted companions to accompany them for testing (DI)

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

COVID-19 Contact Tracing (Topic E): Integrated Findings Across Population Groups

In the findings below, key Ohio population groups that repeatedly mentioned each item are indicated by the following abbreviations:

BA: Black and African American **AS:** Asian and Asian American **RU:** Rural

HL: Latino and Hispanic **IR:** Immigrant & Refugee **DI:** Living with Disabilities

Key Barriers to Using Contact Tracing

These categories represent the barriers that most commonly challenge the ability of key Ohio populations to utilize contact tracing as a public health strategy to prevent COVID-19 disease spread.

Racism and immigration dynamics

For several of the populations studied, discrimination and racism have led to a sense of fear that deters engagement with contact tracing and other COVID-19 protections (AS, BA, IR, HL). Asians are targeted for spreading COVID-19 and have experienced racial targeting and hate crimes (AS). Black and African American people have historically been mistreated during a crisis (BA). Many individuals fear being asked about immigration (AS, HL). There is significant fear among undocumented individuals of ICE involvement, immigration raids, imprisonment, or deportation if they engage, at all, in COVID-19 protections including contact tracing (AS, IR, HL, RU); individuals also fear exposing other families to immigration authorities or ICE (IR). Undocumented individuals may provide fake addresses (AS).

Mistrust of government, law enforcement, and healthcare systems

This history of racist public policy generates mistrust in the government (BA). Trust is foundational to providing personal information, especially to a stranger (BA, IR, RU). Many have concerns about privacy and how information will be used (BA, RU), distrust contact tracers or feel skeptical about their motives (HL, RU), and/or distrust the process of/science behind contact tracing (RU). Willingness to engage in contract tracing is impeded by personal and community histories of negative interactions with healthcare providers (HL), and fear of repercussions (BA, HL, IR, RU).

Language and communication barriers

Lack of information offered in appropriate languages limits understanding of the purpose of contact tracing and ability to engage in the process (AS, IR, HL). Interpreters and translation services are lacking in many situations, or not prompt if available (IR, HL). Low literacy or English proficiency impedes participation; some people may not answer their phones (IR, AS). Relying on family members and children may result in misinformation (AS, IR). Translation and interpretation provided through culturally incompetent services (including some for-profit services) may lead to confusion and misinterpretation (AS, IR). Language barriers cause fear (AS). Cognitive difficulties may prohibit a person from understanding the purpose of contact tracing, or being able to understand questions and provide answers (DI). Some may not be able to remember recent activities, impeding contact tracing (DI). Deaf/blind persons need touch to communicate, and this is essential for individuals with other disabilities as well (DI).

Housing & transportation challenges

Crowded, dense, or small housing units, densely populated neighborhoods, reliance on public transportation, homelessness and housing instability may make participating in naming recent contacts challenging (BA, IR).

Work-related challenges

Many individuals in the populations studied are employed in essential work positions which may involve close contact, little time off, contact with many unknown people (health workers (AS), first responders (AS), low-wage essential work (AS, IR)). Adequate social distancing is often impossible at work; this applies across a broad range of employment categories, both professional and working-class jobs (AS). Certain types of work and employers prevent working from home (AS). Low-income individuals often must work to support the household (AS, IR). Many worry about the impact on employment or job loss (BA, HL).

Insufficient and inappropriate education

Many individuals lack information about COVID-19 in general (AS, BA, DI), and have limited access to updated health information (BA). Members of many of the populations studied lack awareness that contact tracing exists, the purpose of contact tracing, or the importance of participating in contact tracing even when quarantining; this may be due to a lack of educational messaging or inconsistent and confusing messaging (AS, BA, DI, IR).

Lack of technology/technology limitations

Members of many of the populations studied lack access to cell phones, cell service, or digital communication devices and platforms, which limits participation in contact tracing (AS, BA, IR, DI, RU). Lack of Internet access is another substantial barrier (DI, RU). Amish people do not have phones or email (RU).

Cultural norms, attitudes, practices

Asian cultures are oriented towards privacy, which can inhibit participation in contact tracing (AS). Some rural residents believe contact tracing cannot be done correctly (RU). There is considerable variation in community members' beliefs about contracting COVID-19—some do not think they are susceptible while others feel it is inevitable that they will contract COVID-19 no matter what because of high risk and pre-existing conditions (BA). Refugees who have survived other communicable diseases may feel that COVID-19 is unlikely to be a significant threat (IR). Some fear stigma or ostracization if suspected or diagnosed with COVID-19 (AS, HL). Some cultures have the mindset that healthcare is appropriate when sick, not as a preventative measure (HL). People in some communities do not like to be told what to do (RU) or don't want to "rat people out" in small towns where everyone knows everyone (RU).

Commonly Proposed Solutions to Facilitate Use of Contact Tracing

These categories represent our respondents' commonly proposed solutions to the barriers that impede use of contact tracing by Ohio populations.

Partner with trusted community members and organizations, connect with community values

Partnering with community members, leaders, and culturally-specific organizations could improve use of contact tracing for all populations studied (AS, BA, DI, HL, IR, RU). Identify trusted community leaders who can help provide multilingual and community-tailored information and contact tracing services (AS, BA, HL, IR, RU). Use community health workers as a key link with communities (AS, IR, RU), and pay individuals who come from each community and speak the

native languages to work as contact tracers (DI, AS, HL, IR, RU). These steps could help create community buy-in for contact tracing (RU). Trusted community members who come from and look like the communities they serve can provide critical linkages between communities, information, and resources, and can include community leaders (BA, IR, HL, RU), religious leaders (BA, IR, HL, RU), and youth in the community (IR)). Train contact tracers in the needs of individuals with disabilities (DI). Relay information so that family members can talk to other family members, especially within multi-generational households (HL, RU).

Address language and communication barriers

Contact tracers must adapt to each person's mode of communication, and should use clear and simple language (AS, DI, IR). Hire multilingual, community-based contact tracers (AS, IR, HL). Offer culturally appropriate interpretation services when someone from the community is not available (AS, IR). Accommodate interpretation services and technologies (DI). Accommodate caregivers or assistants in contact tracing (DI). Promptly translate information from the Governor's office (IR). Make quality, face-to-face interpretation more widely available in contact tracing (IR, DI, RU). Contact tracers should plan for extra time and patience when interviewing individuals with disabilities (DI). Providing long-term English education will improve engagement with health information and health-promoting behavior in the long term (IR).

Create and improve multilingual, varied, culturally-appropriate COVID-related education

For all populations studied, it is important to explain how, why and when contact tracing is important, and to do this from the perspective of people within the community (AS, BA, DI, HL, IR, RU). Create visual aids for low literacy populations (IR). Create educational materials in multiple native languages of immigrant and refugee groups, including PSA (public service announcement) videos and commercials (HL, IR), social media content (HL, IR), radio broadcasts (HL), posters and signs at key community locations (HL), and mailed information (IR). Ensure caregivers have access to these educational resources (DI).

Emphasize privacy and confidentiality, and clarify how contact tracing information is used

Reassuring participants that information collected for contact tracing will be kept confidential, used only for that purpose, and not shared with other authorities would improve participation in contact tracing for several of the populations studied (RU, BA, HL, IR). Members of several of these populations distrust government and health authorities due to the history of racist mistreatment of minorities during health crises; these worries could be addressed by direct reassurance that contact tracing information will not be shared with other authorities (BA, HL, IR). This reassurance could also ease concerns about potential impacts on employment (BA), and about potential exposure to the police or immigration authorities/ICE (HL, IR).

Conduct in-person contact tracing in the home environment

For some of the populations studied, sending well-trained contact tracers to conduct these conversations at home would improve use of contact tracing (RU, BA, DI). This mode of delivery would allow individuals who do not have access to a landline, cell phone, and/or Internet to participate successfully in contact tracing (RU, BA). Seeing a contact tracer in person – particularly if that person is from one's own community – would help increase trust in the process and facilitate information sharing (RU, BA). For some individuals with disabilities, in-person conversations are critical to successful contact tracing because they allow the involvement of interpreters (DI). In addition, in-person contact tracing would allow contact to be made with people whose addresses but not phone numbers are known (BA).

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

Isolation & Self-Quarantining (Topics F&G): Integrated Findings Across Population Groups

Integrated analyses of Topics F&G have been combined because the identified barriers and recommendations relevant to isolation and self-quarantining are very similar for all population groups.

In the findings below, key Ohio population groups that repeatedly mentioned each item are indicated by the following abbreviations:

BA: Black and African American   **AS:** Asian and Asian American   **RU:** Rural

HL: Latino and Hispanic   **IR:** Immigrant & Refugee   **DI:** Living with Disabilities

Key Barriers to Using Isolation and Self-Quarantining

These categories represent the barriers that most commonly challenge the ability of key Ohio populations to utilize isolation and self-quarantining as public health strategies to help minimize the impact of COVID-19.

Housing challenges

In all of the populations studied, housing conditions make both isolation and self-quarantining very difficult (BA, AS, RU, IR, HL, DI). Many individuals live in small, densely occupied units that house many people, large families, multiple generations, and/or multiple families (BA, AS, RU, IR, HL, DI). Others live in congregate housing arrangements including apartment buildings, halfway houses, group homes, shelters, and migrant camps (BA, AS, HL, DI). These arrangements often require many people to share space, including bathrooms and bedrooms (BA, RU, IR, HL). In addition, caregivers cannot isolate from the person they care for (AS, DI). Alternate living situations are usually not available or affordable (RU, IR, HL, DI). Isolating or self-quarantining also requires someone else to supply groceries or supplies (RU, DI).

Need to work

Many members of all the populations studied must go to work – often in essential, healthcare, and/or low-wage jobs – to provide for their families and maintain a basic income (BA, AS, RU, IR, HL, DI). Attendance is often mandatory at their jobs, with no sick time, working from home, or time off allowed (BA, AS, RU, IR, HL, DI). Individuals fear losing jobs and/or benefits if they stay away from work while isolating or self-quarantining (BA, RU, IR, HL, DI).

Gaps in education, information, and understanding

Members of most of the populations studied lack up-to-date health information relevant to COVID-19, including information about when isolation or self-quarantine is necessary, and how to do it (AS, RU, IR, HL, DI). Low general levels of education and health literacy can exacerbate this problem (RU, IR, HL, DI). Information is commonly available only in English, which is inaccessible to those with limited English literacy or proficiency (IR, HL). Refugees who have survived other communicable diseases may also feel COVID-19 is unlikely to be a significant threat (IR).

Cultural norms, political beliefs, and attitudes

The values and norms of most of the populations studied make isolation and self-quarantining difficult (AS, RU, IR, HL, DI). Ties to family and community are essential parts of normal life and critical to mental health; self-quarantine and isolation are challenging because they separate individuals from their families and communities (AS, RU, IR, HL, DI). Distrust of government authorities limits information sharing and education about isolation and self-quarantining (RU, IR). Many members of rural communities also have political beliefs that can impede isolation and self-quarantining, including not believing that COVID-19 is real, anti-science attitudes, objecting to restraints on personal freedom, and social pressures to conform to these beliefs (RU). COVID-19 is stigmatized in some communities and the resulting fears may prevent engagement with public health advice (IR, HL).

Caregiving responsibilities and needs

Individuals with caregiving responsibilities for children or other family members often do not have anyone else to fill those roles, making isolating or self-quarantining very challenging (BA). Individuals with disabilities may not be able to isolate or self-quarantine without a caregiver (DI).

Commonly Proposed Solutions to Facilitate Use of Isolation and Self-Quarantining

These categories represent our respondents' commonly proposed solutions to the barriers that impede use of isolation and self-quarantining by Ohio populations.

Provide housing options and financial resources

Direct supports could help individuals in all the populations studied isolate or self-quarantine when necessary (BA, AS, RU, IR, HL, DI). This could include providing separate temporary housing for those who need to isolate or self-quarantine; creating temporary free housing options for sick or self-quarantining individuals; offering hotel vouchers or financial assistance to help individuals procure their own separate temporary housing; and creating options for isolation/quarantine within congregate living situations (BA, AS, RU, IR, HL, DI). Community health workers could develop isolation/quarantine plans for those living in different housing situations (BA).

Increase and improve COVID-related education

Increasing education and improving public understanding of COVID-19 in general, as well as isolation and self-quarantining specifically, would help increase use of these protective strategies (BA, AS, RU, HL, DI). Relevant topics for increased educational efforts include the severity and real threat of COVID-19, current public health guidelines, the difference between social distancing and isolation/quarantine, when and why isolation or quarantine are important, and practicalities of how to isolate/quarantine (BA, AS, RU, IR, HL, DI). Other relevant topics include how to stay connected with others during isolation/quarantine (BA), stigma around COVID-19 (IR), and public assistance for individuals who are isolated/quarantined (RU). Educational materials must be accessible in multiple languages and to individuals with low literacy levels (BA, AS, RU, IR, HL); they must include lots of visual aids and culturally relevant messaging with diverse graphics (BA, AS, RU, IR). They must also be sensitive to community norms and religious teachings (IR, HL).

Partner with community members and leaders

Directly involving community members, leaders, and organizations in providing education and support will help increase the use of isolation and self-quarantining (AS, IR, HL). Community health workers (AS, IR, HL) and individuals who speak the languages of communities are essential in this effort (AS, IR, HL). In some communities, it may be necessary for public health authorities to first earn the trust of community leaders (HL).

Provide support for those in isolation or self-quarantine

Direct support for individuals who are isolating or quarantining would make these strategies more widely usable (BA, IR, DI, RU). These support strategies could helpfully include allowing a family member or caregiver to isolate or quarantine with affected individuals (IR, DI), delivering groceries and meals (RU, DI), providing community health workers or other lay workers to make home visits (BA), and providing increased access to social and mental health services (IR).

Other recommendations – relevant to specific populations

- Increase social pressure to use isolation and self-quarantining when appropriate (RU)

Findings Relevant to the CDC's Public Health Strategies to Combat COVID-19

Healthcare Access (Topic H): Integrated Findings Across Population Groups

In the findings below, key Ohio population groups that repeatedly mentioned each item are indicated by the following abbreviations:

BA: Black and African American
AS: Asian and Asian American
RU: Rural

HL: Latino and Hispanic
IR: Immigrant & Refugee
DI: Living with Disabilities

Key Barriers to Healthcare Access

These categories represent the barriers that most commonly challenge the ability of key Ohio populations to access primary healthcare, mental healthcare, and substance use treatment to help minimize the impact of COVID-19.

Lack of healthcare access

In all the populations studied, many individuals have no health insurance coverage, which severely limits their ability to access any healthcare (BA, AS, RU, HL, IR, DI). Many do not know where to get healthcare without insurance (BA, AS, HL) and cannot afford to do so (BA, AS, RU, HL, IR). In all the populations studied, many individuals do not have a primary care provider (BA, AS, RU, HL, IR, DI). Some communities and neighborhoods lack enough primary health providers, nurses, and mental health providers for the population (RU, DI), and the healthcare that does exist may be overbooked (RU). In rural areas, primary care providers and free clinics may struggle financially because they do not receive federal funding (RU). Some healthcare and mental health services have closed due to COVID-19 (RU, DI), and individuals who need care may not know which facilities are still operating (AS). Some insurance plans do not cover telehealth appointments (DI). Undocumented immigrants do not qualify for Medicaid or Medicare (HL).

Mistrust of healthcare systems and government

Many members of the populations studied do not trust the healthcare system, due to a history of structural racism, medical experimentation on minorities, and personal experience of poor treatment by providers (BA, AS, HL, IR, DI). Contemporary racism and direct targeting of minority populations in the COVID-19 crisis increases reluctance to use healthcare facilities (BA, AS, HL). Lack of racial and ethnic diversity among healthcare providers, as well as lack of cultural accommodation by healthcare providers, adds to these problems (IR). Undocumented individuals fear that accessing healthcare could expose them to immigration authorities, ICE, imprisonment, and deportation (AS, HL, IR), and could create difficulties for their family members and communities (HL, IR). Some individuals who are eligible for Medicaid do not apply because they do not want to be on a government list (HL). Many members of rural communities do not trust health advice from government leaders, don't believe COVID-19 is a serious issue, and have concerns about confidentiality (RU).

Lack of personal transportation

Members of most of the populations studied lack private means of transportation and can therefore access healthcare only when it is on a public transportation route (BA, AS, RU, HL, IR). Additionally, public transportation and ride-shares are sometimes unaffordable and/or unsafe (BA, AS, RU, IR, IR).

Lack of technology

Many Ohioans rely on telehealth as a substitute for in-person healthcare that is not available during the COVID-19 pandemic, but telehealth use is severely limited for members of the studied populations when they lack access to smart phones, computers, Internet, broadband, and WiFi (BA, RU, IR). Some individuals have no reliable access to a telephone at all (RU).

Language barriers

Language barriers limit the ability of some community members to utilize healthcare (AS, HL, IR). Many healthcare settings provide care only in English, with no access to translators or multilingual staff (AS, HL, IR). The need for care provision in the languages spoken by communities applies to physical healthcare, mental healthcare, and substance use treatment (HL). In addition to limiting the ability of patients and medical providers to communicate effectively, language barriers can create fear and anxiety (AS).

Gaps in education, information, and understanding

Lack of up-to-date health information about COVID-19 can impede appropriate use of healthcare (AS, IR). It can also be difficult for individuals with low general levels of education or low health literacy to understand the information provided (RU, HL, IR). Some community members are exposed to misinformation and false news (and misinformation spreads more easily because accurate information is inaccessible); this further limits their understanding of appropriate healthcare use both in general and relevant to COVID-19 (AS, RU, IR). Some communities lack understanding of how and where to seek care (RU, HL), or how to use telehealth services (HL, IR, DI). Inconsistent information from regulatory agencies and hospitals exacerbates these problems (RU, IR).

Cultural norms and attitudes

Members of many communities experience stigma around mental healthcare and around COVID-19 (AS, HL, IR). Some community members prefer to use alternative medicinal practices instead of Western healthcare (AS, IR).

Other barriers - relevant to specific populations

- Fear of being exposed to COVID-19 at the doctor's office (BA)

- Necessary providers, advocates, and caregivers may not be allowed at medical appointments during the pandemic (DI)

- The lack of providers trained to treat people with disabilities is more acute during the pandemic (DI)

Commonly Proposed Solutions to Facilitate Healthcare Access

These categories represent our respondents' commonly proposed solutions to the barriers that impede use of primary healthcare, mental healthcare, and substance use treatment by Ohio populations.

Provide access to healthcare directly

Increasing access to healthcare involves both reducing financial barriers and improving the availability of services (BA, RU, AS, HL, IR). For many of the studied populations, direct measures to provide free and widespread healthcare access would be most helpful (BA, RU, AS, HL, IR). This could include providing more free clinics in small and underserved communities (RU, AS), offering free access to existing health services (RU), making prescriptions free (RU), and creating lists of clinics and hospitals providing these services (HL). Universal health insurance or less expensive health insurance would help substantially (AS, RU), as would assistance finding and enrolling in insurance programs (RU). Many communities need additional healthcare sites that are open and accepting patients (RU, AS); mental health services are particularly sparse (RU). Many individuals would benefit from continued and expanded telehealth options through clinics and Federally Qualified Health Centers (FQHCs) (AS, IR, DI) and help scheduling telehealth appointments (AS). Re-opening in-person services, providing mobile treatment options, and providing services at home could also help (RU, HL, IR).

Improve transportation

Improving public transportation and providing additional transportation options would facilitate use of healthcare in several of the populations studied (RU, AS, IR, DI).

Partner with trusted community members, leaders, and organizations

Public health authorities should work directly with trusted community members, leaders, and organizations to improve healthcare access (RU, IR). This could include hiring community members as community health workers or health navigators to connect people to appropriate care and payment mechanisms (RU, AS, HL, IR). Local FQHCs are trusted by many communities and could be helpful partners for improving healthcare access (AS).

Improve access to technology

Widespread – and affordable or free – access to cell phones, broadband, and Internet services would increase individuals' access to telehealth (RU, DI).

Provide information and services in multiple languages

Providing health-related information and services in multiple languages – or translators in healthcare settings – would help improve healthcare access (HL, AS, IR). Members of local communities can be hired to do this work (HL, IR).

Other recommendations - relevant to specific populations

- Provide education about mental health and drug use issues (IR)

- Provide education about COVID-19 and relevant healthcare (DI)

- Increase disability-related competencies among healthcare professionals (DI)

- Increase the availability of interpreters or interpretation technology in healthcare facilities (DI)

- Allow caregivers or trusted companions to accompany people with disabilities to medical appointments (DI)

3

Minimizing the Impacts of COVID-19 on Ohio's Population

Top-Level Recommendations from *Ohio's COVID-19 Populations Needs Assessment*   343

1. Center the COVID-19 response in the organizations and cultures of local communities

2. Explicitly address economic injustice and its widespread health and social impacts by directly providing resources

3. Directly address racism and immigration-related fears

4. Strengthen employment policy and other relevant public policies

5. Increase access to affordable, low-density housing

6. Improve public and shared transportation services

7. Improve the quality of COVID-related education and increase its dissemination

8. Address language and communication barriers

The data, analyses, findings, and population-specific recommendations described above cumulatively reveal eight top-level recommendations to minimize the impacts of COVID-19 on all of Ohio's populations. These key recommendations encapsulate those ideas that will have the strongest positive impact on reducing the COVID-related burdens on the populations studied in this *Needs Assessment*, as well as the longest-lasting public health impact for marginalized communities across the state. Each of these eight recommendations holds the promise of increasing the capability of multiple populations to mitigate the impacts of COVID-19 in their communities by improving their ability to use multiple public health strategies. These recommendations also address the social determinants of health and systemic, institutionalized oppression. In the long term, then, they will also improve community conditions to reduce health disparities and improve health outcomes throughout Ohio.

Needs Assessment respondents clearly articulated the critical and urgent nature of all eight sets of recommended changes, without which COVID-related protections will continue to be out of reach for many of Ohio's residents. The recommendations are presented below in a logical order, starting with those that are most structural in nature and apply similarly across all studied populations. The discussion of our top-level recommendations below – along with the detailed findings and recommendations presented above – provide data-driven evidence that can both guide the implementation of necessary changes across the state and support the policy- or funding-related advocacy of stakeholders aiming to improve the COVID-19 response and advance health equity.

Top-Level Recommendations from *Ohio's COVID-19 Populations Needs Assessment*

1. **Center the COVID-19 response in the organizations and cultures of local communities**

2. **Explicitly address economic injustice and its widespread health and social impacts by directly providing resources**

3. **Directly address racism and immigration-related fears**

4. **Strengthen employment policy and other relevant public policies**

5. **Increase access to affordable, low-density housing**

6. **Improve public and shared transportation services**

7. **Improve the quality of COVID-related education and increase its dissemination**

8. **Address language and communication barriers**

Discussion of Top-Level Recommendations

KEY RECOMMENDATION #1: Center the COVID-19 response in the organizations and cultures of local communities

Barriers stemming from lack of cultural responsiveness in COVID-19 protection strategies

Communities across Ohio have specific values, traditions, norms, and beliefs that fundamentally shape their responses to public health advice and their ability to utilize COVID-protective strategies. These cultural elements are at the core of what ties a community together, often constituting its central strengths, sources of meaning, and feelings of belonging and joy for community members. In cases when COVID-19 protective strategies have been developed and disseminated without consideration of key cultural elements, however, they can also be a source of barriers to the use of those public health strategies.

Various forms of familism, collectivism, and communalism are central to the cultures of all the communities of color studied in this *Needs Assessment*. [1] These principles prioritize the essential value of the family or group over the individual, and are expressed in the everyday importance of maintaining close community contact. Within this context, creating physical distance between people who are normally close, avoiding social events, and wearing masks or other PPE can feel contradictory to essential cultural values and family norms. In various communities, for example, greeting without hugging or touching, avoiding in-person religious ceremonies, canceling large family gatherings, and allowing a loved one to live in isolation for a period of time can be interpreted and experienced as wrong, disrespectful, and profoundly isolating. These consequences are not mere inconveniences; they may have serious outcomes including familial conflict, community ostracization, and loss of mental health.

Beyond the importance of close community contact that is expressed in various forms across groups, other beliefs and norms can also make it difficult for community members to connect to or figure out how to use COVID-protective strategies. These include the beliefs that only God controls who will get sick (also termed 'fatalism', particularly relevant in Latino/Hispanic communities); a norm of relying on family rather than outsiders for help and advice (particularly relevant in Latino/Hispanic communities); strong orientation toward keeping personal and family information private (particularly relevant in Asian/Asian American and rural communities); and strong gender norms that make it difficult for men to accept advice or help from women (particularly relevant in some immigrant/refugee communities).

The potential mental health impacts of behaviors to protect oneself or others from COVID-19 are an especially relevant concern for some immigrants and refugees. Individuals who have a history of trauma may particularly fear having to maintain physical distance from people they feel close to, the potential need to live in isolation, and the possibility of dying alone. In addition, these individuals may have unmet mental health needs that are accentuated by changes in routine and physical separation from loved ones and communities. In immigrant, refugee, and some other communities there is also substantial stigma surrounding both mental health treatment and infectious diseases such as COVID-19.

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1. On familism, collectivism, and communalism, see Campos et al. (2014), Delgado-Gaitan (1994), Jagers & Mock (1995), Lukwago et al. (2001), Raeff et al. (2000), and Vega (1995).

In many rural communities, a particular constellation of political beliefs and community norms stand in the way of community members' understanding of, and investment in, most methods of protecting themselves from COVID-19. This suite of widely held beliefs and norms includes: general anti-science attitudes; conservative political ideology; beliefs that COVID-19 is fake or only affects urban residents; beliefs that protective methods are ineffective or intended to constrain personal freedom; distrust of advice from government leaders; general aversion to 'being told what to do' and 'ratting people out'; distrust of privacy guarantees from testing sites and contact tracers; and experiencing social pressure to conform to these community beliefs.

Finally, public health strategies to minimize COVID-19 risks have often not been developed with the needs of people with disabilities in mind. Individuals with disabilities have particular fears, such as not having access to interpreters or communication devices in testing or healthcare situations, not being allowed to have a companion or caregiver with them for COVID-related care, and not receiving the same quality of care as people without disabilities. Based in actual experiences of this community, these fears make it particularly difficult for people with disabilities to engage with COVID-19 testing, contact tracing, healthcare, and public health advice. Isolation and quarantine also hold particular dangers for some individuals with disabilities, so planning for these possibilities without specific accommodations can present a mental health challenge as well.

Solutions involving centering the COVID-19 response in communities and cultures

Addressing the wide range of barriers that emerges from friction between COVID-protective strategies as they have been articulated and the lived experiences, values, traditions, norms, and beliefs of communities requires that public health work be purposefully grounded in local organizations and cultures. Developing, disseminating, and implementing specific methods of protecting individuals and groups from COVID-19 will likely be most effective when it unfolds through multi-sectoral partnerships centered in trusted community groups who are empowered and funded to do this critical work.

Community-based organizations are critical to alleviating the COVID-related barriers faced by all the groups of Ohioans studied in this *Needs Assessment*. Across the state, specific local groups, institutions, and retail sites are already trusted and frequented by community members. These 'centers-of-community' include ethnic and neighborhood organizations, community centers, places of worship, schools, free clinics, ethnic grocers and restaurants, 4H clubs, university extension offices, barber shops, locally-owned gas stations, dollar stores, and more. [1] Because they are already points where community members experience feelings of belonging and trust, connect to one another, and access a range of resources, centers-of-community are ideally situated to be centers of the COVID-19 response.

Expanding existing centers-of-community into centers of COVID-19 response requires at least three important elements. First, their leaders, owners, and decision makers must be interested and motivated in helping their communities respond to the pandemic. Most

communities are already home to many leaders enthusiastically willing to serve in such roles. In some rural communities, however, trust in public health advice is particularly low and will first have to be built between community leaders and individual health experts who are respected – such as pharmacists. Second, networks must be built to connect centers-of-community to the forms of expertise and resources that will allow them to fulfill new functions for their communities (or expand COVID-related work they are already doing); these connections might include public health expertise, clinical expertise, social service agencies, and local or state government entities. Third, succeeding as centers of COVID-19 response will require that centers-of-community have the financial resources to do this work, through new or expanded connections with government funders or private donors.

As centers of COVID-19 response, centers-of-community can serve a range of critical functions. Leaders and members of these centers are trusted gatekeepers to community access. They know their communities from the inside, and understand the lived experiences, values, norms, beliefs, and traditions central to peoples' lives. As such, these individuals could be profoundly helpful in developing tailored educational materials, adapting COVID-related protection strategies to work within their communities, and contributing expertise in the design of all COVID-related policies and interventions. Incorporating (and prioritizing) their input could remedy many of the current disconnects between COVID-protective advice and community cultures, thereby making

1. For examples of how such centers-of-community have been used as partners in effective health interventions, see Campbell et al. (2007), Hardison-Moody & Yao (2019), Ma et al. (2012), Balcázar et al. (2012), Berkley-Patton et al. (2016), and Han et al. (2017).

significant inroads in alleviating many of the barriers described above.

In addition to providing much-needed expertise and guidance to all components of the COVID-19 response, centers-of-community could serve a variety of other concrete functions. As distribution sites and delivery coordinators, they could help ensure that community members are able to access cleaning and disinfecting supplies, masks and other PPE, and educational information related to COVID-19. Centers with physical homes could function as local testing sites that community members would feel comfortable entering and worksites for community-based contact tracers, community health workers, and/or patient navigators. They could also create COVID-safe WiFi hot spots to increase access to telehealth and other remote resources. Community members who work and spend time in these locations could serve as role models for mask-wearing and social distancing; demonstrate frequent cleaning of high-touch surfaces; offer community- or culture-specific guidance about how to make isolation and quarantine work within the real patterns and constraints of peoples' lives; and connect individuals to affordable and trustworthy healthcare providers. Centers-of-community could also launch and connect community members to virtual social interaction opportunities to help those suffering from lost social connections due to the pandemic.

Ensuring a successful community-based COVID-19 response also requires hiring and training community members to fulfill the many roles outlined above. This approach to staffing the COVID-19 response will help ensure that all elements are delivered in ways that make sense within the context of local cultures, facilitate trust between testers/contact tracers and community members, and help deliver services in the native languages of communities. Community health workers – who can serve as bridges between community members, community organizations, health information, and health and social resources – should also be hired from within the communities they will serve. [1] [2]

These recommendations – to involve community leaders in all aspects of the COVID-19 response, expand centers-of-community into centers of COVID-19 response, and build an infrastructure of community health workers – are critical to a successful state response to the pandemic. They also have the potential to reduce health disparities in marginalized communities over the longer term. By investing new resources and expertise in community-based organizations, building capacity in those organizations, and integrating community expertise into public health work, they can create the infrastructure to support improved social determinants of health, healthcare access over time, and more community resilience in the face of future crises.

1. Health navigators and health educators are other categories of community-based personnel who could be trained and employed to fill similar roles.

2. For evidence on the effectiveness of community health workers in addressing public health barriers in marginalized communities, see Adams (2020) and Russel et al. (2010). For other comments on the potential for community health workers to be a critical resource in the COVID-19 response, see Bhaumik et al. (2020) and Wells et al. (2020).

KEY RECOMMENDATION #2: Explicitly address economic injustice and its widespread health and social impacts by directly providing resources

Barriers stemming from lack of resources

Economic inequality – the unequal distribution of income and opportunity between different groups in society – is a longstanding structural feature of U.S. society that has been steadily intensifying over the past 50 years. [1] Rising income inequality is the result of faster income growth among high-income social groups than middle- and low-income groups. Furthermore, people of color have systematically earned considerably less income than Whites, a trend reported since the US Census began collecting these data in the late 1960s. [2] Household net worth has become increasingly bifurcated as well, with the wealth gap between the richest and poorer families more than doubling since 1989. [3] Economic inequality is a fundamental cause of health disparities. [4] These facets of economic injustice are reflected in the data collected on every subject from our *Needs Assessment* respondents, and powerfully impact the ability of all marginalized groups to use public health strategies to protect themselves from COVID-19. [5] Numerous gaps in access to resources necessary to minimize the impacts of COVID-19 result from the fact that many (but by no means all) members of Ohio's marginalized communities live in low-income households with little reserve wealth.

Members of all the communities studied in this *Needs Assessment* reported consistent difficulty gaining access to cleaning agents, disinfecting supplies, gloves, masks, and other PPE. These products are often unavailable locally and unaffordable even when available. These problems are exacerbated by price gouging by vendors, hoarding of supplies by those who can afford to do so, lack of access to credit cards (to purchase items online), and the fact that food stamps cannot be used to purchase many necessary supplies. Masks and PPE are needed both at work and at home, and even healthcare workers, caregivers, and essential workers have difficulty procuring them. Some individuals make masks for themselves and their communities, but mask-making supplies can also be difficult to both find and purchase.

Although most members of these communities are highly motivated to use COVID-19 testing when appropriate, testing is generally difficult to access and specifically unavailable in community neighborhoods. The dearth of testing sites and testing capacity in many regions of the state is exacerbated by other constraints: some communities have experienced long waits to get tested or receive results; some areas have testing mostly within large hospital systems that will test only their own enrolled patients or those who can get to the hospital in person; there are few testing sites within low-income communities of color and only some allow testing without a prior visit to a healthcare provider.

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1 This commonly used definition of economic inequality is taken from IZA World of Labor (2020).

2 Pew Research Center, 2016.

3 Schaeffer, 2020.

4 Link & Phelan, 2006.

5 On the concept of economic injustice and its relationship to economic inequality and public health, see Hayes (2020), Winslow (2017), and Whiteis (2010).

Healthcare is also difficult to access – for COVID-specific care, but also for preventive care and management of chronic health conditions. Many low-income individuals lack health insurance because they earn too much to qualify for Medicaid but too little to purchase it on the market, and healthcare is very difficult to afford without insurance. Undocumented individuals are ineligible for public or private insurance, and many other immigrants are reluctant to apply even though they are eligible. [1] Shortages of primary health care and mental health care particularly affect marginalized communities and individuals who rely on Medicaid. Many healthcare and mental health providers, including primary health homes and community health centers serving low-income communities, have closed or limited their services due to the pandemic, exacerbating concerns about access. [2]

Low-income individuals and households often lack access to Internet service, affordable data plans, and up-to-date devices that can access the Internet and run teleconferencing and multimedia applications. Rural communities – which sometimes have no Internet service providers at all – are particularly affected by these technological gaps. This 'digital divide' impedes the use of a range of protective strategies, including remote work options, telehealth substitutes for in-person healthcare, online education, online information that helps people stay informed, online worship services, other activities that keep people connected, and more. [3]

Compounding these many COVID-specific resource gaps are underlying constraints caused by lack of financial resources. Many members of marginalized communities have no savings to rely on, no emergency funds, and no source for subsistence funds if their workplaces close or they lose income due to the need to isolate or self-quarantine. Unemployment often takes longer to come through than individuals living paycheck-to-paycheck can afford without serious hardship. Even without the additional financial strains caused by the pandemic, many individuals lack access to clean water, full-service grocery stores, or sufficient funds to regularly pay for rent, utilities, and other necessities. Non-citizens (both undocumented and documented residents) lack access to public funds, benefits, and COVID-19 emergency funds. For all individuals coping with economic insecurity, meeting basic needs can at any time be a more critical use of the funds they do have than protecting themselves from COVID-19.

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1   See the discussion of Key Recommendation #3 for more on this point.

2   Health Resources and Services Administration (HRSA), 2020; Larry Green Center, 2020.

3   For an overview of research on the digital divide, see van Dijk (2006) and van Dijk (2017).

Solutions that involve providing and increasing availability of resources

A broad range of solutions could alleviate the many barriers caused by economic inequality; these chiefly involve increasing access to necessary resources and directly providing these resources to communities and individuals. A first important step is to facilitate ready access to masks and PPE, disinfecting/cleaning supplies, and other essential supplies. There are many ways to accomplish this, but any successful approach will require improving availability, affordability, and community-based distribution of all these supplies. Making supplies routinely available could be accomplished by improving stock at local retail sites, establishing semi-permanent COVID-supply storefronts, opening supply distribution centers at local community hubs, ensuring that healthcare and essential work sites provide the full range of necessary supplies for all workers, and/or distributing supply kits to households. Affordability is a critical issue – particularly for low-income households – that could be addressed by providing free supplies for distribution to households or at community sites, using government or private subsidies to reduce prices, and/or by setting limits on allowable prices and purchase quantities. [1] Community-based distribution is also necessary to facilitate both physical accessibility and the trust of local community members.

Improving the utilization of COVID-19 testing requires creating free testing sites near the locations where people live, shop, or work, and ensuring that they are easily accessible. Convenient testing sites should be located in well-used community locations or in mobile vans that visit workplaces and neighborhoods, particularly in neighborhoods with transportation obstacles. Local and mobile sites also facilitate access for individuals who

are caregivers for children, elderly people, or other family members. Testing access can be increased by ensuring it is free to all patients, does not require a doctor's order, does not require presentation of immigration-related documentation (including driver's licenses), and is supported by translation and interpretation services to facilitate use by individuals with disabilities or low English proficiency.

Healthcare access must also be improved to ensure that those who test positive can be effectively linked to ongoing care, and that those who experience severe symptoms can receive treatment as needed. New free and low-cost health clinics should be placed in neighborhoods where many individuals currently lack access; these can be developed through or in partnership with existing federally qualified health centers, community health centers, public health authorities, pharmacies approved to provide clinical services, and private healthcare systems. Expanded telehealth services – along with HIPAA adjustments and free/low-cost options – would increase access while patient flow is limited by the pandemic. Community health workers and patient navigators can help those who are eligible enroll in health insurance, access public support programs, and schedule appointments. Translation and interpretation services must be accessible at all healthcare sites, and healthcare must be provided without any potential repercussions for immigration processes. Increasing availability of mental health and substance use disorder services would help individuals cope with many of the secondary effects of the pandemic. Mandating strong charity care programs across all hospitals and health centers would help provide care for more uninsured individuals.

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1. For a review of the evidence on how – and when – direct provision of resources improves health outcomes, see Persaud et al. (2019).

A range of COVID-related protections, as well as other health-related supports would be facilitated by provision of technological resources to allow rural and low-income communities to cross the 'digital divide'. In particular, this would require universal, affordable, high-speed Internet access, and ensuring that every household has an up-to-date device (e.g.: a cell phone or computer) that can access the Internet and supports videoconferencing and other multi-media features. Training for those new to online information and services should also be provided by community-based organizations.

Direct financial supports would also substantially improve communities' ability to use COVID-related protections. Improving and speeding access to cash assistance, rental assistance, emergency pay, unemployment, and stimulus payments could help many purchase essential supplies; retain financial stability through a job loss; hire additional or substitute caregivers to cope with illness, isolation, quarantine, and employment changes; and defray costs of isolation, quarantine, and healthcare. Grace periods for unpaid rent and utility bills would help keep people housed even if their financial situation suffers due to the pandemic.

Long term social changes would more thoroughly address – and even help avoid – the many health-related consequences of income inequality and economic injustice. Universal health insurance and ongoing access to comprehensive healthcare (including primary care and mental health care) would improve health outcomes and reduce healthcare costs to the entire system. Expanding the scope of practice and credentialing for pharmacists, nurse practitioners, and physician assistants would help fill the national shortage in primary care, create new options for testing sites, and connect individuals to appropriate healthcare. Raising the minimum wage to a living wage would move many households out of poverty and enable them to purchase essential supplies during and beyond the pandemic.

KEY RECOMMENDATION #3: Directly address racism and immigration-related fears

This key recommendation focuses on the profound impacts of racism, xenophobia, and immigration-related fears on the ability of many Ohioans to utilize public health strategies to minimize the impacts of COVID-19 on themselves and their communities. These forms of discrimination and social inequality are an important focus because they emerged so strongly from the data provided by many groups of respondents to the *Needs Assessment* survey. Other forms of discrimination and inequality also pose important barriers to use of COVID-related protections, however. The needs of people with disabilities, for instance, have historically been excluded from public health policy making, and individuals with disabilities have been subject to lower-quality and lower-priority care within the COVID-19 pandemic. [1] Full consideration of all COVID-related barriers and solutions must also incorporate able-ism, other 'isms', and the intersectional nature of social inequalities that compound the challenges faced by many members of Ohio's communities.[2]

Racism-Related Barriers

All communities of color addressed in this *Needs Assessment* – including Black and African Americans, Latinos and Hispanics, Asians and Asian Americans, and immigrants and refugees – reported that historical, systemic, and everyday racism have profound impacts on their ability to follow public health advice about all the strategies they might otherwise use to protect themselves from COVID-19. [3] This finding is consistent with recent public acknowledgments across Ohio and the nation that racism is a public health crisis. [4] It is also consistent with a long history of research demonstrating that discrimination in many forms (e.g. racism, xenophobia, ableism) has negative impacts on health and well-being.[5] For all communities who experience racism, it raises barriers to COVID-related protective strategies that are intense and difficult to overcome.

Black and African Americans have been subject to racism and discrimination within and beyond health-related contexts since the time

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1   For literature on the exclusion of the needs of people with disabilities from policy-level decision making and poorer treatment of people with disabilities affected by COVID-19, see Abedi et al. (2020), Burke (2020), Cokley (2020), and Pineda & Corburn (2020).

2   For a basic introduction to the concept of intersectionality and its impacts on discrimination and political action, see Cooper (2016) and Crenshaw (1989).

3   This discussion focuses on the impact of racism and discrimination on the ability of communities of color to utilize COVID-protective strategies. It is also the case that COVID-19 infection and hospitalization rates are following long-standing health disparities patterns that disadvantage communities of color within the U.S. (Abedi et al., 2020; Cholera et al., 2020; Dubey et al., 2020; Gee et al., 2020; Huang & Liu, 2020; Pineda & Corburn, 2020; Vestal, 2020a).

4   American Public Health Association, 2020; Brown, 2020; Came & Griffith, 2019; City of Columbus, 2020; Devakumar et al., 2020; Vestal, 2020a.

5   American Public Health Association, 2020; Bailey et al. 2017; Brown, 2020; Came & Griffith, 2019; Campbell, 2009; City of Columbus, 2020; Devakumar et al., 2020; Kreiger, 2014; Sharby et al., 2015; Shi et al., 2015; Suleman et al., 2018; Vestal, 2020a; Yip et al., 2008.

of slavery. In modern history, these groups have systematically experienced negative social determinants of health, [1] unethical medical testing, [2] and systematically worse treatment by healthcare professionals and systems. [3] *Needs Assessment* respondents clearly echoed themes also found in prior research, about how these abuses have resulted in mistrust of healthcare providers and government advice. [4] The well-documented realities of Black and African Americans being perceived of as criminals and subjected to police brutality also contribute to fear of wearing masks, particularly among men. [5] Anti-Black racism and discrimination thus pose substantial barriers to the ability of Black and African Americans to trust health authorities and utilize COVID-protective strategies, but they also impact other communities of color.

Among Latino/Hispanic and immigrant/refugee communities, mistrust of government and medical authorities can lead to cautious attitudes toward following public health advice, waiting until one is very ill to get tested or seek healthcare, and a belief that one's own community will only get access to testing or care after the dominant White U.S. population has been cared for. Lack of racial or ethnic diversity among healthcare providers, being given erroneous testing information, and being turned away from testing sites at healthcare facilities have all lent credence to these concerns. Latino/Hispanic and immigrant/refugee groups also reported concerns and fears that stem from knowledge of how Black and African Americans are treated, and that impede their own use of COVID-protective strategies.

Asians/Asian Americans have also experienced chronic racism and discrimination, and anti-Asian harassment has increased since the start of the COVID-19 pandemic. [6] Verbal and physical assaults – often directed specifically at individuals wearing masks – have resulted in considerable reluctance to wear masks in public. Among some Asians/Asian Americans well aware of the benefits of mask-wearing, these fears also result in reluctance to leave the house. More broadly, experiences of racial targeting and hate crimes have created a general sense of fear that takes an emotional toll and deters engagement with COVID-19 information and protections, including not just mask-wearing but also COVID-19 testing, contact tracing, and healthcare.

1   Upstream negative social determinants of health include lack of clean air and water, lack of access to healthy food and space for exercise, exposure to violence, stress that originates in experiences of discrimination and produces early 'weathering', and more.

2   For a discussion of the origins and effects of medical mistrust, see Jaiswal & Halkitis (2019).

3   On systemic racism in U.S. healthcare, see Feagin & Bennefield (2014) and Bailey et al. (2017).

4   Haung & Raymond, 2020; Feagin & Bennefield, 2014; Jaiswal & Halkitis, 2019; Sharby et al., 2015; Shi et al., 2015.

5   For an overview of police violence and its impacts, see Lowery (2016) and Taylor (2016). For discussion of the origins, processes, and effects of mass incarceration, see Alexander (2012) and Hinton (2016).

6   Intensification of xenophobic attitudes has been documented in prior epidemics, pandemics, and emergencies (Onoma, 2020; Petersen et al., 2017), and also specifically in the age of COVID-19 (Noel, 2020). This current intensification may also have lasting repercussions (Dubey et al., 2020; Huang & Liu, 2020).

Immigration- and Xenophobia-Related Barriers

For the Latino/Hispanic, Asian/Asian American, and immigrant/refugee communities studied in this *Needs Assessment*, immigration-related fears also present powerful barriers to the use of COVID-protective strategies. Seeking a COVID-19 test, talking to a contact tracer, or visiting a healthcare provider can all raise fears that information shared for health-related reasons will be given to authorities, resulting in ICE involvement, immigration raids, imprisonment, deportation, or failure of future citizenship applications. [1] These concerns are not only relevant to undocumented individuals, but also to many others who know of cases where documented immigrants or U.S. citizen members of their communities have been detained or even deported. [2] The consequences of immigration-related fears are far-reaching. They not only impede all COVID-protective strategies that involve direct contact with healthcare providers, but also result in hesitance to engage with local health departments; refusing to share information or providing fake information to contact tracers; and eligible individuals avoiding applying for Medicaid or other health insurance programs.

1. These findings are consistent with prior findings about immigration-related fears related to accessing healthcare. See, for example Derose et al. (2007), Hacker et al. (2015), Hacker et al. (2011), and Lopez et al. (2016).

2. For prior research on how fears commonly experienced by undocumented immigrants also negatively impact other immigrants who have legal status, see Almeida et al. (2016), Gee & Ford (2011), Lopez et al. (2016), and Philbin et al. (2018).

Solutions that Address Racism

Addressing COVID-related barriers that stem from racism will require direct action from local and state government leaders, healthcare institutions, and other social systems. [1] At the societal level, public and elected officials have a leading role to play. This involves calling attention to racism, xenophobia, and misinformation whenever they are articulated in public spaces; strongly refuting such statements; substituting accurate information and statements reflecting inclusive values and goals; and advocating for anti-racism in all public policies. [2] COVID-specific examples include, for instance, public officials directly refuting the association of COVID-19 with Asian/Asian American communities and disseminating accurate information about how people of all racial-ethnic backgrounds can contract and transmit it. Public policy can also help convey these same messages.[3] Prosecution of COVID-related hate crimes may help counteract attitudes that blame communities of color for the pandemic. Mandatory mask ordinances can help reduce racial profiling and harassment (as well as reducing COVID-19 transmission) and can be publicly promoted as an expression of conscientiousness and community support instead of an indicator of illness.

Racism, implicit bias, and cultural barriers must all be acknowledged and eliminated within healthcare and social service institutions as well. Training programs for all staff are commonly articulated as a practical way to achieve this, but the content of these programs must be richer and more comprehensive than standard implicit bias and cultural competency trainings.[4] The content of these efforts must – at a minimum – build staff knowledge and skills in identifying and reversing discriminatory practices and habits, and in understanding and honoring cultural values and norms of the communities they serve (e.g.: familism and collectivism, which is central in many communities of color). More likely to be successful are multi-pronged initiatives that provide ongoing, multi-session staff trainings alongside deeper institutional work to address structural barriers and discrimination, including hiring healthcare employees reflective of the populations they serve. [5]

Beyond healthcare institutions, other systemic changes can be pursued in the immediate and longer term to decrease the widespread marginalization produced by racism – and its range of health-related impacts. [6] Government and private efforts to mitigate COVID-19 should routinely support and promote community-based businesses and organizations owned by people of color.

1. The need for multi-sector interventions involving partnerships with local communities to address structural racism has been explored in prior research (e.g.: Bailey et al., 2017).

2. Anti-racism in public policy requires examining and then actively countering existing racial inequity, the racist policies that produce it, and the racist ideas that veil it (Kendi 2019a and 2019b).

3. Government support for anti-xenophobic policies may actually be necessary for interventions meant to assist immigrant and refugee communities to be successful (Crush & Ramachandran, 2010; Onoma, 2020).

4. Brondolo et al. 2009; Jongen et al., 2018.

5. This involves diversifying healthcare and social service workforces to include more people from underrepresented communities, thorough mentorship and sponsorship of staff at all levels of the organization, and requiring all levels of organizational decision makers to engage with these goals (Dobbin & Kalev 2018).

6. For documentation of the health impacts of racism, discrimination, and xenophobia see Efird & Bith-Melander (2018), Finch et al. (2001), Suleman et al. (2018), Vestal (2020a), and Vestal (2020b).

Police departments should undertake the same multi-pronged institutional transformation initiatives described above, and hate crimes should be taken seriously and prosecuted. Racial inequities in the criminal justice system should be addressed to reduce mass incarceration, which carries both immediate COVID-related risks associated with congregate living and long-term health and economic effects that make communities of color more vulnerable in general and during pandemics. [1] Reparations or direct payments could be instituted to help reverse the limited access to resources that is a key upstream driver of health disparities affecting Black and African American communities.

1. On the many health-related and other impacts of mass incarceration, see Acker et al. (2018) and Alexander (2012).

Solutions that Address Immigration-Related Fears

Both policy-level changes and substantial dissemination of related information are necessary to allay the immigration-related fears that form a substantial barrier to the use of COVID-19 protections in many Ohio communities. Policies and processes must be put in place to ensure that personal information gathered through testing, contact tracing, healthcare, and any COVID-specific resource distribution cannot legally be transferred to any other government entities – including local police, U.S. Immigration & Customs Enforcement (ICE), U.S. Citizen & Immigration Services (USCIS), and immigration courts. These changes would free many members of Latino/Hispanic, Asian/Asian American, and immigrant/refugee communities to benefit from the full range of health-protective strategies without fear of detainment, deportation, or future penalties to immigration processes. These steps would positively impact the ability of both undocumented individuals and many legal residents and citizens to protect themselves and their communities from COVID-19.

Short of full legal separation between all health-related activities and immigration-related law enforcement, some lesser interventions could also have positive impacts. Offering COVID-19 interventions at trusted community sites (such as ethnic grocery stores or community-based organizations) and delivered by non-governmental, non-military personnel – instead of at governmental sites (such as local public health departments or other government locations) – would improve trust and engage more community members. Maintaining this trust, however, requires either that already existing health-information protections (such as HIPAA) be used effectively to prevent sharing of personal data, or that these sites operate entirely without collecting personal data that could be useful to immigration authorities. Allowing individuals to get a COVID-19 test without identification or referral from a healthcare provider could increase testing utilization in these communities.[1] Temporary suspension of all deportations during the pandemic and legislation guaranteeing that information gained through pandemic-related healthcare will never be conveyed to immigration authorities in the future could also help.

1.This could be done, for instance, through free testing sites that assign unique identifiers to each patient instead of identifying their test results by name. This approach would help with testing uptake and utilization in communities where immigration-related fears are common, but would limit the information that could be provided to surveillance efforts at the local or state level.

KEY RECOMMENDATION #4: Strengthen employment policy and other relevant public policies

Work and Employment Barriers

Many members of the populations studied in this *Needs Assessment* face substantial work-related barriers that impede their use of all the recommended public health strategies to protect themselves against COVID-19. These barriers stem both from the need to work and from conditions at work, and they constitute essential challenges that must be addressed in order to alleviate the burden of COVID-19 in marginalized Ohio communities.

For most, paid work is not optional. Many members of our communities are primary or critical sources of income for their households; low-wage jobs are common and families already in or close to poverty cannot afford to lose the income from these positions even if they involve COVID-related risks. Work within these communities is often in essential jobs: [1] in grocery and retail stores, and as care workers, health workers, and first responders. People of color and immigrants are over-represented in essential service industry and supply-chain positions, frequently working more than one such job each week and without access to other sources of income.[2] Essential jobs – both professional and working-class – often involve face-to-face and close contact with the public and fellow employees, making six feet of social distance impossible much of the day. Many essential work environments also make frequent hand washing impossible (e.g.: cashier jobs). In addition, many employers fail to provide adequate cleaning supplies and PPE for the working conditions involved. Most workers have little control over such conditions at work, relying on employers to take appropriate precautions, follow state regulations, and enforce guidelines in their workplaces.

Daily attendance at work is also mandatory for many individuals. Remote work is impossible in many essential jobs, and employer policies and limited broadband access limit working from home for other employees as well. For many workers sick time is also not an option: their contracts have no provisions for paid sick leave and employers don't allow time off work. Many workers are reluctant to skip work even when they are sick or have been exposed to COVID-19 because they fear losing their benefits or their jobs altogether if they miss days. Furthermore, some individuals – particularly those in low-wage essential positions – worry about how getting a COVID-19 test or participating in contact tracing could affect their employment. Immigrants and refugees may be particularly likely to avoid risking their employment in any way, even to protect their health, because they qualify for neither stimulus funds nor unemployment benefits, or because they fear losing the ability to adjust their immigration status in the future if they utilize any public benefits (under the public charge rule). [3]

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1 Dyer, 2020.

2 Dwyer, 2013.

3 For details on the public charge rule and how it can impact immigration status adjustments, see U.S. Citizenship and Immigration Services (2020). The most stringent aspects of the public charge rule are under injunction due to COVID-19, but the extent to which this reassures immigrants is unclear and likely varies.

Employment-Related Policy Solutions

While policy change represents a critical route to alleviating many of the barriers described in this report, the deep and wide nature of COVID-related risks at work makes it particularly important to institute and enforce regulations that affect employers and workplaces. [1]

Members of all marginalized communities would benefit from a legal requirement that all businesses provide leave time to employees who need to isolate or self-quarantine, or need to stay home to care for an isolating or quarantining family member, without threat of job or benefit loss. Requiring that employees exhibiting COVID-19 symptoms take sick leave is also essential; this sick leave should be paid or accompanied by emergency financial supports for those who cannot afford to miss work without threat to their economic security. These policy recommendations build on evidence that paid leave policies reduce workplace transmission and improve quarantine compliance [2]. Given the risks of in-person work, employers should also be required to allow employees who can do their jobs from home to work remotely.

Within physical workplaces, employers must be required to follow current state guidelines and utilize best practices for minimizing the spread of COVID-19, including providing masks, PPE, and hygiene supplies to employees as well as facilitating hand washing and social distancing.[3] In addition to regulatory requirements, incentives that assist and reward compliant employers can be an effective strategy in many cases. Many small and minority-owned businesses will require financial support to engage fully with safety requirements and stay in business. [4] Workplaces can also be important sites for employees to receive COVID-related information, and this information should be provided in multiple languages when substantial proportions of employees communicate most comfortably in languages other than English. Some businesses and industries have particularly egregious histories of unhealthy working conditions and coercion of employees; given the critical nature of COVID-related protections businesses should be monitored for regulatory violations that harm workers' health. [5]

1 See McLellan (2017) on the roles of employers in protecting and promoting employees' health and the benefits employers also gain from considering employee health.

2 Bodas & Peleg, 2020; Kumar et al., 2011; Kumar et al., 2013; Miyaki et al., 2011.

3 Hand washing and hand sanitizer have been shown to reduce the spread of infectious disease within workplaces (Zivich et al., 2018). Providing access to health resources can increase uptake among employees and provide further protection within the workplace (Kimura et al., 2007; Yue et al., 2017).

4 Hannon et al., 2012.

5 Linaker & Smedley, 2002.

Other Critical Policy Solutions

Beyond the realm of employment, several other policy issues emerged as uniquely critical to particular populations in Ohio.

In addition to the universalistic positive effect of reducing COVID-19 transmission in public places, enforcing guidelines about mandatory mask wearing may help reduce instances of discrimination and harassment against African American, Asian, and Asian American individuals wearing masks. [1]

Many COVID-related protections would be more available to immigrants with policy-level clarity and reassurance that educational events, testing sites, contact tracing, and health information are all kept strictly separate from immigration authorities. Unemployment compensation or direct financial supports would also help immigrants who have experienced job loss but cannot benefit from CARES Act funding.

In rural areas, strong incentives may be more effective than regulatory enforcement at gaining the cooperation of community members in mask wearing, limiting large events, and social distancing in public venues.

Within many hospitals and medical facilities policies such as triage protocols will need revision in order to ensure equitable care for people with disabilities. Ensuring that a formal or informal caregiver can always accompany an individual with a disability to doctor's appointments, during medical testing, within hospitals, and during hospitalizations will help ensure appropriate care and patient understanding.

1. For additional information on how COVID-19 is increasing instances of discrimination, harassment, and violence against Asian Americans, see Li & Galea (2020) and Kim (2020).

KEY RECOMMENDATION #5: Increase access to affordable, low-density housing

Housing Barriers

Housing-related challenges – which vary somewhat in form across geographies and population groups – constitute key structural barriers to protecting individuals and families from the impacts of COVID-19. The COVID-related risks of dense, poor, or insecure housing reflect broader patterns of housing as a determinant of both short- and long-term health outcomes. [1] The dense and poor housing conditions faced by a significant proportion of Ohioans adversely affect their ability to utilize safe hygiene practices (such as frequent-enough cleaning of shared surfaces) and keep enough social distance to prevent rapid transmission of the virus if one member of the household contracts it. [2] [3] Dense living conditions also directly impede the essential practices of isolating those diagnosed with COVID-19 and quarantining those who have been exposed, as there is not enough physical space for one or more household members to separate themselves from others in the household. Contact tracing is also severely inhibited by situations where individuals are housing insecure, move frequently, share phone lines, or can't maintain access to a phone line over time.

Housing challenges stem from the high cost of housing throughout both urban and rural areas of Ohio. Unaffordable housing results in many occupants living together in single and/or small housing units. Across all the marginalized groups studied in this *Needs Assessment*, multi-generational and multi-family housing arrangements are common. While such arrangements can offer a range of benefits in the forms of cost-sharing and familial or social support, these crowded homes also involve many people sharing space, including bathrooms, bedrooms, and beds. Apartments and houses can also be densely clustered in the neighborhoods of mid-range and large cities, contributing to challenges related to social distancing and high-touch surface cleaning in shared community spaces such as elevators and neighborhood markets. Congregate arrangements are relevant for some population subgroups, particularly those living in nursing care facilities or halfway houses, migrant workers living in camps, and incarcerated individuals. Housing instability adds further challenges. Individuals' ability to control hygiene and social distancing are dramatically reduced in shelters and outdoor living situations. These housing conditions

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1 Thomson et al., 2009; Bashir, 2002.

2 Overcrowding also has negative impacts on mental health, child development, heart disease, and other health outcomes (Bashir, 2002).

3 In addition to the general and widespread barriers caused by dense, poor, or insecure housing among marginalized populations, prior research has suggested that older individuals and those with disabilities are among those groups additionally burdened. Around 52% of Ohioans aged 65 and older are cost-burdened by rent, and Ohioans with disabilities spend roughly 82% of their income on housing. Additionally, nearly two-thirds of homes in Ohio are inaccessible by wheelchair (Fallon & Price, 2020).

also have negative impacts on overall health status and impede individuals from maintaining healthcare relationships that are critical to both general and COVID-related medical testing, diagnosis, and treatment.[1] In addition, close caregiving relationships can pose challenges when individuals need to isolate or quarantine, since neither those providing care nor the individuals they care for (children, individuals with disabilities, elderly family members) can live physically separate from one another. Challenges related to caregiving are concentrated among women and low-income people of color, who perform the majority of both informal and formal daily caregiving work. [2]

[1] Data from the National Survey of American Families indicates that 23.6% of Americans had unstable housing prior to the 2008 housing crisis (Kushel et al., 2006); the rate of housing insecurity is likely even higher among Ohio's marginalized populations who commonly work in low-wage industries. Poor housing conditions have negative impacts on health status (Stahre, 2015), and homelessness is significantly associated with emergency room care (Wolitski et al., 2010).

[2] Dwyer, 2013; Hodges, 2019.

Housing Solutions

Short-term solutions to housing-related challenges would immediately improve the ability of vulnerable communities to utilize hygiene, physical distancing, isolation, and quarantine strategies to minimize the impacts of COVID-19.

Across communities where dense housing conditions are common, there is an urgent need for affordable and culturally acceptable interim housing options for individuals who need to quarantine or isolate. Sponsored and/or provided through private, local, state, or federal funding, such alternatives would directly reduce the spread of disease along with its long-term health and economic effects. There are many prospects for temporary housing locations and the appropriateness of each varies across geographies and communities; overall they include hotels, motels, RVs, mobile homes, and public sites not currently in use, such as schools, convention centers, emergency evacuation sites, and National Guard Armories. Since financial insecurity and poverty are primary underlying constraints for many members of marginalized communities, it is essential that these temporary housing options be offered free of charge, or paid for through vouchers and emergency funding programs that are easy to apply for and well publicized. [1] Plans to establish such temporary options should also include ways to ensure that individuals who utilize them will be able to safely procure food and supplies, that Internet and communications technology will be functional, that interpretive and supportive technologies will be available for people with disabilities, and that caregivers will be allowed to stay with isolating and quarantining individuals when necessary.

Steps should also be taken to reduce the likelihood that the economic strains of the pandemic will cause further increases in housing density and housing insecurity.[2] Suspending evictions, providing rental assistance, and pausing utility payments are all strategies that can help keep housed individuals in their current residences. Those who need to stay safe in crowded homes would benefit from financial assistance to obtain cleaning and hygiene supplies, provision of partitions and mats to help create separation between living and sleeping quarters, and feasible guidelines for isolation within homes. Particular attention should be paid to creating tailored precautions to prevent COVID-19 transmission from caregivers to those they care for, or vice versa. Oversight of migrant worker camps and urban apartment complexes known to have predatory landlords could help ensure COVID-safe (and generally improved) living conditions for individuals in these residences. Improving living conditions and minimizing the additional housing instability COVID-19 causes will not only reduce COVID-19 transmission. These steps are; it is also likely to reduce rates of food insecurity (Mykta, 2015) and medical care utilization. [3]

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1   Jacobs et al. (2010) note that there is sufficient evidence of effectiveness to recommend rental vouchers as a community-level housing intervention.

2   Mykyta (2015) notes that families facing foreclosure or eviction are likely to "double up" or join multi-family housing units.

3   Anderson et al., 2003; Baxter et al., 2019; Desmond & Kimbro, 2015; Mykyta, 2015; Wolitski et al., 2010.

COVID-19 spreads quickly within congregate settings, so it is essential that both residents and employees in these locations have adequate masks, PPE, and hygiene supplies. These facilities would also benefit from customized guidance and resources to temporarily separate individuals who are sick or have been exposed from others. Jail and prison overcrowding can be eased by reducing or avoiding sentences for minor offenses. [1] Increased investment in shelters and low-income housing could help provide COVID-safe accommodations for homeless and transitionally housed populations, including those fleeing domestic violence (Baggett, Tobey, and Rigotti, 2013). [2]

To improve the long-term health of marginalized communities beyond COVID-19, it will be necessary to find methods to bring housing costs down and keep families stably housed. Key strategies include converting existing housing to affordable units, as well as subsidizing and incentivizing private enterprises to build more affordable or mixed-income housing. [3] For migrant workers and prison populations, more humane living conditions (involving even such basic features as having adequate air flow and hand soap available) will likely require policy changes and increased regulation. [4] For people with disabilities, community-based living alternatives could help reduce the proportion in congregate care settings that run higher risks for infectious and institution-acquired illnesses.

1 Akiyama et al., 2020; Cloud et al., 2020.

2 Homeless and housing-insecure individuals are also more likely to smoke tobacco than the general population (Stahre et al., 2015); new shelters and temporary housing arrangements must consider accommodating this behavior with a risk-reduction orientation in order to properly protect low-income individuals from COVID-19. See also Baggett et al. (2013).

3 Kelleher, Reece, & Sandel (2018) found that a mixed-income approach to housing improvements as well as involvement by hospitals and community stakeholders works best for neighborhoods in Columbus, Ohio.

4 Prost et al., 2020; Shah, 2020; Kelleher et al., (2018).

Transportation Barriers

Marginalized communities across the state face frequent gaps in availability of affordable and COVID-safe transportation. The impact of transportation barriers on individuals' ability to protect themselves from COVID-19 echoes broader patterns of delayed medical care and poorer health outcomes among those who lack transportation. [1] Many families and individuals with limited incomes do not have access to personal vehicles and thus rely on public transit or other forms of communal transportation to get to work, shop for groceries and supplies, and move around the community – as well as to seek healthcare or a COVID-19 test. Existing transit networks are limited, however, often lacking routes to transport people from their neighborhoods to grocery stores or healthcare sites. In some regions, public transit networks purposefully do not provide service to COVID-19 testing sites due to concerns about viral transmission on buses. Carpooling to work and shopping is common in some communities. Ride-share services offer another alternative for individuals who can afford them, but do not serve some rural areas of the state.

Using public transportation exposes individuals to risk of COVID-19 transmission through lack of social distancing on buses; unless buses are cleaned frequently, they also pose a risk for transmission through high-touch surfaces. When public transportation cannot be used, however, many community members lack any way to buy essential supplies or cleaning products, or to get to a COVID-19 testing center or healthcare site unless they are located very close to home. Drive-through testing sites are also usually inaccessible without a car.

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1 Peters, 2020; Pineda & Corburn, 2020; Syed et al., 2013; Wolfe et al., 2020.

Transportation Solutions

Increasing access to COVID-safe transportation would substantially improve individuals' ability to procure the basic and sanitizing supplies necessary to prevent disease and maintain health, and to utilize COVID-19 testing and healthcare to minimize the impact of disease in their communities.[1]

Additional investment in public transit systems could facilitate several important improvements. Buses and other vehicles could be made safer by adding plexiglass barriers, distributing masks to riders, and cleaning more frequently. Infrastructure could be improved by adding routes that go to work, healthcare, and shopping sites (including to culturally-specific groceries); increasing the frequency of buses on routes; reducing costs to riders; and issuing free bus passes to those otherwise unable to use them.

In some areas, community agencies already provide transportation to healthcare sites and other social services; additional investment in these networks would allow them to serve more individuals more regularly during the pandemic. [2] Financial incentives could help bring rideshare companies into rural areas and outfit cars to provide transportation to essential shopping, testing, and healthcare sites in ways that are safe for both riders and drivers.

1 Transportation interventions – including subsidies and free services – have been shown to alleviate delayed or missed medical care (Solomon et al., 2020; Starbird et al., 2019; Wolfe & McDonald, 2020).

2 Starbird et al., 2019; Vias et al., 2020; Wolfe & McDonald, 2020.

KEY RECOMMENDATION #7: Improve the quality of COVID-related education and increase its dissemination

Education-Related Barriers

Lack of accurate, up-to-date, relevant, and comprehensible education about COVID-19 is widespread throughout the communities studied in this *Needs Assessment*, and this dearth of education undermines the effectiveness of all the public health strategies that could minimize the pandemic's effects on individuals and groups. Critical gaps in information about the disease encompass a range of topics, including: the risks of COVID-19 and how it is transmitted; the fact that one can have and transmit COVID-19 without symptoms; recommended hygiene practices and products; when and how to practice social distancing; the importance of masks, how to wear masks properly, and when other PPE is needed; when and how to get tested; how contact tracing works and why to participate in it; when and why to isolate or self-quarantine; and where to get healthcare and what facilities are open. Many communities also experience other unmet information needs that stand in the way of COVID-protective information and health-oriented behavior. These include, for instance: how to adapt preventive behaviors to specific disabilities or living conditions; how to talk to children and other family members about the disease, mask-wearing, and other protective strategies; how to communicate with doctors; and how and when to access care for mental health or drug use issues.

These specific information gaps often exist within broader contexts where basic health education – which sets the stage for comprehension of COVID-specific messaging – is missing or ineffective. Individuals with low literacy, low education levels, and limited English proficiency often lack understanding of how the healthcare system works in general, as well as exposure to core concepts related to health-promoting habits and healthcare usage. COVID-specific educational messages can also be undermined when they are not delivered in a person's native language, in culturally appropriate terms, or at an inappropriate reading level. [1] Misconceptions and misinformation constitute another substantial problem – in communities that have come to believe that COVID-19 is not real or that masks cannot reduce transmission, for instance, substantial exposure to carefully crafted and accurate information from trusted sources would be necessary to increase the use of protective strategies. [2]

The consequences of information gaps and lack of effective COVID-related education are manifold. At the most basic level, individuals lacking information about COVID-protective behaviors are unlikely to use them, and more likely to engage in high-risk behaviors. In some rural and other communities, individuals may think they are not susceptible to COVID-19 or feel unconcerned about contracting the virus. Others believe there is little point in protective behavior because their pre-existing conditions or the large number of cases around them mean that they will contract the disease no matter what, or that people like them will be given last priority for treatment. Relying on whether someone 'looks sick' to decide whether it is necessary to social distance, wear a mask, or clean surfaces is also a commonly reported problem.

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1 Rimer & Kreuter, 2006.

2 Although the barriers highlighted in this paragraph pertain specifically to education- and information-related gaps, they are profoundly intertwined with – and in many cases secondary to – structural barriers such as lack of resources. Not understanding how to wear a mask or which foods contribute to a healthy diet are real challenges for some, but in other cases the more prominent problems are lack of funds to purchase masks or access to markets that sell fresh produce.

Some populations also have specific additional information and educational needs. Refugees, some groups of recent immigrants, and older members of other marginalized communities may lack experience with computers and the technical skills necessary to access educational information or use telehealth. Immigrants and refugees often do not understand complex healthcare and social systems well enough to navigate them during the pandemic. Refugees who have survived harsh life conditions or other communicable diseases may feel that COVID-19 is unlikely to be a significant threat. Residents of rural communities particularly suffer from 'safety fatigue'; this is a result of over-exposure to inconsistent information from various official sources and social media while simultaneously receiving no information from local sources they trust, and can be exacerbated by low health literacy.

Education-Related Solutions

To facilitate the ability of all of Ohio's populations to protect themselves from COVID-19, it is essential that educational messaging is culturally tailored; developed in consultation with community members and leaders; presented in all the languages each community speaks and in terms appropriate for individuals with low literacy and numeracy; includes plentiful visual aids; features diverse graphics centered on members of all relevant communities; and delivered on an ongoing basis. These recommendations are consistent with the literature demonstrating that tailored health messages and community engagement are key to effective health promotion education. [1] A comprehensive mass media campaign to continually disseminate clear, credible, consistent information from public health experts could provide a critical foundational layer of understanding on which more detailed, tailored campaigns can build.

To establish and maintain the necessary level of COVID-related understanding, informational materials must cover a broad range of topics. [2] Chief among these are:

- The severity and threat of COVID-19

- The efficacy of protective measures including hand washing, surface cleaning, mask wearing, other PPE, and social distancing

- When and how to use all these protective measures effectively

- Where to affordably obtain necessary supplies and resources such as cleaning supplies, masks, and PPE

- When, where, and how to get a COVID-19 test including without insurance or a doctor's referral

- Why contact tracing is important and how it works

- When and how to isolate and quarantine including within the home

- How to access COVID-related healthcare including without insurance

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1 Finset et al., 2020; Rimer & Kreuter, 2006; Van Bavel et al., 2020; WHO, 2020.

2 The World Health Organization (WHO, 2020) has developed a qualitative assessment tool that can be used to assess community understanding of COVID-19 risk and how communities are informing themselves about COVID-19.

For many of the populations studied in this *Needs Assessment*, publicly disseminated information about additional topics would also facilitate COVID-19 prevention behavior within households and communities. These include:

- How to use COVID-related protections while at work, in religious spaces, and when in caregiving roles [1]

- How hygiene practices, facial coverings, use of PPE, and other COVID protections can be adapted appropriately to the needs of individuals with a range of disabilities

- How to adapt guidelines to individuals living in urban, suburban, and rural communities

- Community-specific suggestions for staying safely connected with family and community during the pandemic

- How to care for sick family members safely

- How to communicate effectively with healthcare providers

- Specific, tailored information designed to dispel false information and misinformation circulating within the community

- How to manage social distancing and mask-wearing with family and friends, including content about how these behaviors can communicate respect and the value of protecting one another [2]

- How to adapt community traditions, greetings, and ceremonies to be COVID-safe

- The personal- and community-level benefits of following public health advice and how this can be consistent with preservation of individual rights

- Strategies that help inoculate communities to harmful misinformation related to COVID-19

- Public assistance that is available to individuals in isolation or quarantine, caring for such individuals, and suffering from lost income due to COVID-19

- The confidentiality of COVID-19 testing and contact tracing; specific and accurate guarantees that information gained through these health-protective measures will not be communicated to law enforcement or immigration authorities

1 This and other suggestions about recommending replacement or adapted behaviors are consistent with evidence-based health promotion concepts (Finset et al., 2020; Michie et al., 2020).

2 Modeling pro-social behaviors and appealing to collective action, especially in communities with cultures that value collectivism, improves health message uptake (Finset et al., 2020; Van Bavel et al., 2020).

Educational materials should be widely distributed using a range of modes, including flyers and posters, household mailings, pamphlets, yard signs and other community signage, ethnic and other social media, webinars and video events, video testimonials or demonstrations featuring community members, TV, and radio. Many of these vehicles for accurate information can also be used to mitigate misinformation individuals have received, or to 'inoculate' them against circulating misinformation. [1]

Utilizing local community expertise to develop tailored educational materials, and delivering these materials through trusted local sources, are both essential to ensuring that they will be well received and accepted by the audiences for whom they are designed. Some forms of content and delivery are particularly appropriate for specific communities. For example, storytelling may be an especially effective method of demonstrating to Latino/Hispanic groups that public health strategies can be made consistent with cultural norms, values, and traditions. [2] Educational messaging must also be made accessible to the broadest-possible range of ability levels by using materials written in simple language, interpretive services, and communication technologies.

Education-related solutions must also be directed at healthcare, public sector, and social service workers. Ongoing training for all such employees could help them provide culturally responsive services and outreach to all of Ohio's communities. This broad education must encompass implicit bias and cultural sensitivity training but must also move beyond these traditional forms to deeper content delivered through multi-session programs more able to generate individual and institutional behavior change. Contact tracers, testing-site staff, and healthcare providers must be educated about how to deliver services effectively to people with disabilities. Disability service providers and formal and informal caregivers would also benefit from COVID-specific trainings.

In the long run, broad improvements in health education would build stronger foundations for understanding the need for health behavior changes to respond to infectious disease epidemics and other health crises. This would require a racially equitable education system that serves members of all communities to the highest standard, more comprehensive school-based health education, and a more diverse pool of educators in primary and secondary educational settings.

1   Van Bavel et al., 2020.

2   Storytelling emerged as particularly important for Latino/Hispanic groups in this *Needs Assessment*; prior research has also demonstrated that narrative may improve message uptake by low health literacy groups (Moran et al., 2016).

KEY RECOMMENDATION #8: Address Language and Communication Barriers

Language and Communication Barriers

Where language or communication barriers exist, they can render all the strategies available to protect individuals and communities from COVID-19 inaccessible, standing in the way of obtaining COVID-related information or education, engaging with COVID-19 testing or contact tracing processes, and accessing physical healthcare, mental healthcare, substance abuse treatment, or social services. Language barriers are common across the Latino/Hispanic, Asian/Asian American, and immigrant/refugee communities studied in this *Needs Assessment*, affecting not only individuals who speak no English at all, but also those with low English proficiency and dependent family members who rely on them to access information or healthcare.

COVID-related information is often provided only in English, contributing to a lack of understanding of the disease, how to prevent it, and how to cope with it within communities where English is not the dominant language. This problem pertains not only to written educational materials, but also to local signage (such as signs indicating direction-of-flow or social distancing guidelines in grocery stores), press conferences in which public officials provide important COVID-related updates, public service announcements, and more.

Many healthcare services operate only in English, even when serving communities most comfortable communicating in another language. In healthcare settings where translation is available, services sometimes provide poor-quality translation or take a long time to connect patients to translators.

In many situations, individuals who need help communicating with a healthcare provider are forced to rely on the limited translational capabilities of children or other family members. Furthermore, lack of comprehension is not the only problem caused by these language barriers. Anticipated difficulties communicating with one's healthcare provider, understanding a contact tracer's questions, or filling out required forms can cause fear and anxiety – further curtailing individuals' engagement with healthcare. These *Needs Assessment* findings echo those of prior research on the limitations and consequences of lack of language-concordant healthcare for individuals with low English proficiency.[1] These barriers limit the ability of many members of Ohio's communities to get a COVID-19 test, participate in contact tracing, or access effective healthcare when ill.

For people with disabilities, other types of communication barriers can also impede use of the strategies that protect individuals and communities from COVID-19. Deaf/blind persons, for instance, require touch to communicate, and thus need assistance from an interpreter to absorb COVID-related information or participate in COVID-19 testing, contact tracing, or healthcare. Masks can make communication difficult for deaf individuals and others who utilize lip-reading strategies. Restrictions that prohibit interpreters from accompanying individuals to healthcare appointments and not having interpretive technology available further contribute to communication challenges faced by many Ohioans.

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1 Diamond et al., 2019; Flores, 2005; Jaeger et al., 2019; Karliner et al., 2007.

Language and Communication Solutions

Multilingual and community-tailored information and services would substantially improve the ability of many of Ohio's communities to use all methods of COVID-19 protection. Educational information should be presented in all the languages spoken by distinct population groups within Ohio; these include Spanish, Mandarin, Arabic, Somali, and many others. [1] Doing so most effectively will require that guidance provided by the State of Ohio, as well as updates from the Governor's office, materials from the CDC, and other government-authored documents be translated promptly into these languages. Local and community-based organizations providing COVID-related information will also need to identify the languages relevant to their target populations and provide information in each of these languages. At a minimum, multilingual information should be available about each of the public health strategies to combat COVID-19; when, why, and how to use them; and how to locate COVID-19 testing and healthcare.

Writing English-language originals of educational materials in plain, accessible language has many benefits. Simple language information is not only easier to for individuals with low English proficiency to understand and utilize, but also more effective for native English speakers with low literacy or low health literacy. Translated versions that accurately convey consistent information may be easier to write based on simpler original versions. High-quality translation will go beyond translation of words to consider full communication of meaning; "six feet", for instance, is not easily understandable as a unit of distance for some immigrant populations. Utilizing members of the communities intended to receive translated information to do the translation work may be the most effective way to guarantee complete, meaningful, culturally appropriate translated products. [2] Visual aids are also essential in educational material, assisting low-literacy English speakers, individuals who are not literate in any language, and individuals who must read materials in a language in which there are not fluent.

Multilingual personnel are an equally critical component of addressing the language barriers common across Ohio. All testing, contact tracing, and healthcare service locations must employ bilingual or multilingual practitioners, have translators on staff, utilize shared staffing models to share translators with other sites, or have phone access to translation services when needed. [3] Publicizing the availability of multilingual services could help to reduce fear and anxiety, helping more individuals become willing to come forward for testing, answer contact tracing calls, and engage with healthcare. High-quality translation services must be used; some for-profit companies employ workers who lack the skills to fully translate meaning in a culturally competent way. Hiring individuals from within the communities being served could help ensure that testing, contact tracing, and healthcare interactions are both linguistically fluent and culturally competent, and could help build trust and connection with these communities. Funding translator trainings could also help expand the pool of native-language speakers with the health-specific language skills necessary to be hired into these testing, contact tracing, and healthcare positions.

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1   Spanish is the mostly commonly spoken non-English language in Ohio, but several others are spoken as well. (Limited English Proficiency, 2015).

2   Brunette, 2005; Jones et al., 2011.

3   Multiple studies show that trained, professional interpreters and language-concordant care positively affect the satisfaction, quality of care, and outcomes of patients with low English proficiency (Flores, 2005; Karliner et al., 2007).

For individuals with disabilities that affect communication, several measures can help ensure access to COVID-related information and services. Using ASL (American Sign Language) and other interpreters, interpretive technology, screen readers, closed captioning, and audio descriptions are all effective options for ensuring communication of COVID-related information. [1] Classifying ASL and other interpreters as essential employees can preserve their presence to assist with both the COVID-19 response and broader healthcare interactions. Interpretation services and technologies must be provided throughout the healthcare landscape, including during contact tracing and at testing sites, in healthcare facilities and hospitals. Formal interpreters or trusted companions must be permitted to be involved in contact tracing and allowed to accompany people with disabilities to testing and healthcare. Hiring people with disabilities – or already connected to disability communities – to do this work can both help relieve financial insecurity in these communities and ensure that interpretation services meet the needs of community members. Finally, presenting educational information and asking contact tracing questions in plain language can help facilitate accurate interpretation of this information for individuals with disabilities.

1   For additional reflections on recommendations about interpretive services and communications accessibility, see Courtenay (2020); Courtenay & Perera (2020); Goggin & Ellis (2020); and Jumreornvong et al. (2020).

Taken together, the eight top-level recommendations described above represent a vision for essential next steps in Ohio's COVID-19 response strategy. Designed to alleviate powerful barriers that currently prevent a significant number of Ohioans from using existing COVID-19 prevention measures, these steps would constitute substantial progress toward slowing or preventing the disparate impacts of COVID-19 on people of color, rural residents, and Ohioans with disabilities. Achieving these goals will require contributions from many individuals, groups, and organizations across the state, as well as the integration of new resources. The most promising approach to advancing these objectives will involve multi-sectoral, multi-level community-based collaborations working with well-aligned goals and strategies to advance health equity. The components of this approach are described briefly below.

Take a multi-sectoral community-based approach

Alleviating widespread barriers to the use of COVID-19 protective behavior will require the cooperation of state-level leaders, local public health entities and social service agencies, community-based organizations and leaders, healthcare providers and institutions, public and private funders, and subject matter experts based at academic and other institutions. Teams assembled to address specific local challenges will need to draw in contributors from all the relevant sectors.

For example, an initiative to prevent COVID-19 infection at home and work within a Spanish-dominant urban community might be based in a local Latino community center and benefit from multiple collaborative contributions. A health communications scholar with expertise in Latino community health might team up with a local public health educator providing up-to-date knowledge and COVID-related educational materials originally written in English. Several local community members willing to provide their stories could be featured in the educational flyers and videos.

A Spanish-speaking community health worker could distribute materials and talk to community members about making preventive behaviors work in their own lives. A local employer could contribute by disseminating educational materials, cleaning supplies, and masks in the workplace, and a foundation interested in funding health equity work in Ohio could provide financial support for these efforts.

Collaborative multi-sectoral teams are essential to COVID-related initiatives, and it is critical that community members trust and feel willing to connect with these efforts. As such, these teams will usually benefit from being led (or co-led) by members or leaders of the community they aim to serve.

Integrate interventions across COVID-19 protective strategies

Most of the barriers detailed by *Needs Assessment* respondents affect the ability of community members to access multiple CDC-recommended protective strategies. Densely crowded conditions, for instance, impede the effective use of hygiene, social distancing, isolation, and quarantine. Solutions that provide people more living space would increase access to all these prevention methods simultaneously.

In addition, effectively improving access to one prevention method can require alleviating multiple barriers. For example, instituting an effective testing program for migrant workers would require not only creating geographically convenient testing sites, but also ensuring that testing site staff speak the preferred language(s) of workers; educating workers about when and why to be tested; creating methods to link those who test positive to healthcare and temporary isolation housing; and guaranteeing that personal information during testing or contact tracing will not be shared with immigration authorities.

Integrative thinking is therefore an essential component of any effort to alleviate barriers to COVID-protective behavior within marginalized communities. Initiatives should aim to solve interconnected problems through common interventions and alleviate multiple barriers to a target problem simultaneously.

Launch interventions at multiple levels

Disparate health outcomes result from a wide range of determinants of health that operate at multiple levels. These include:

- Upstream social conditions such as economic insecurity

- Mid-level physical contexts such as dense housing and lack of transportation

- Mid-level social contexts such as unsafe essential workplaces

- Downstream biological pathways, such as the more severe responses to COVID-19 among individuals with certain comorbidities
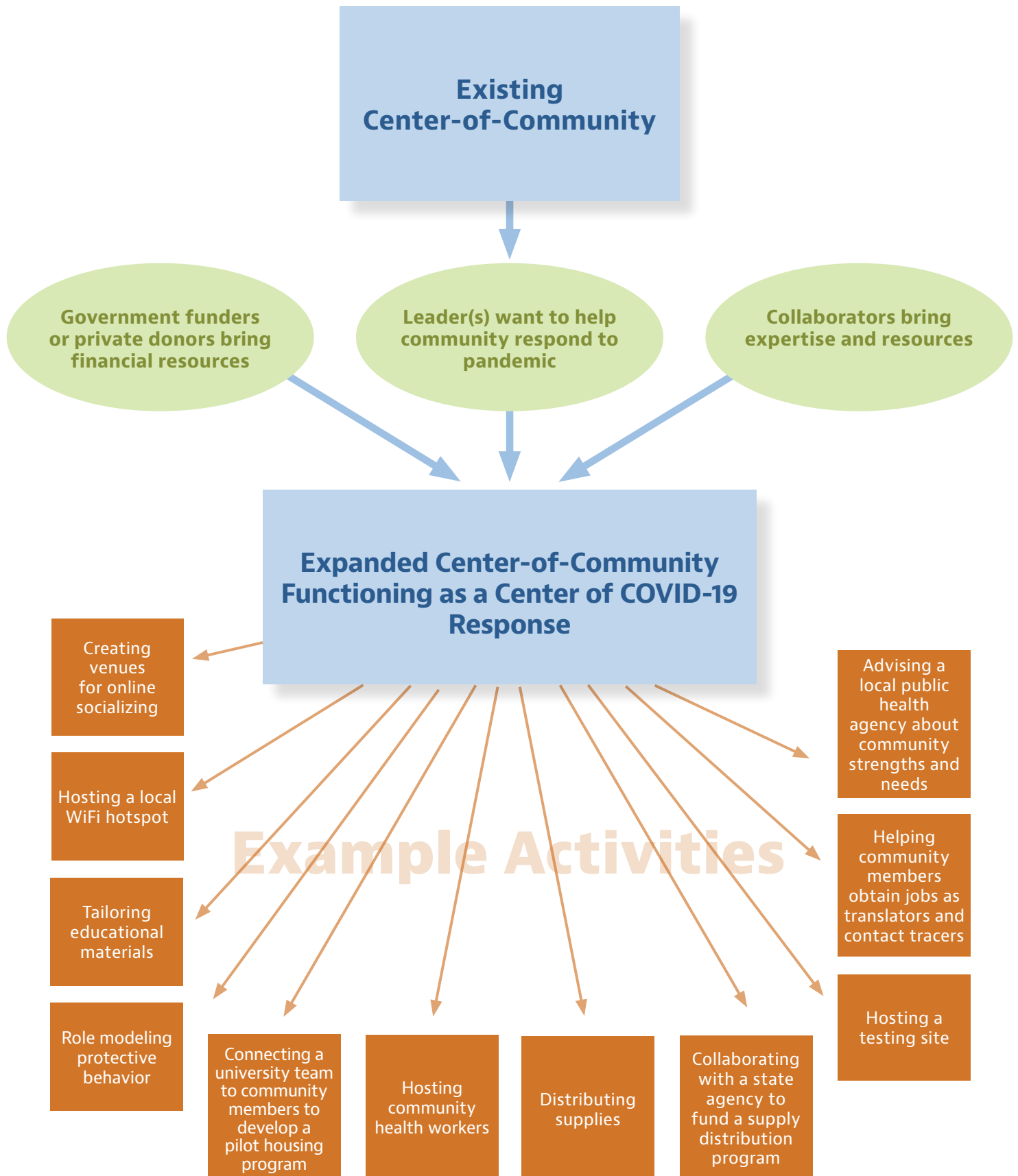
It is therefore necessary to launch interventions at all these levels in order to effectively stem the disparate impact of COVID-19 on Ohio's communities of color, rural residents, and people with disabilities. These interventions must include, for instance, implementing state-level regulations, improving city transit systems, and providing appropriate PPE in local workplaces.

Expand existing centers-of-community into centers of COVID-19 response

Alongside the barriers they face, all the populations studied in this *Needs Assessment* house substantial community assets. These assets include not only respected individual leaders, but also local groups, institutions, and retail sites that are trusted and relied upon by community members. As described above, these 'centers-of-community' include ethnic and neighborhood organizations, community centers, places of worship, schools, free clinics, ethnic grocers and restaurants, 4H clubs, university extension offices, barber shops, locally owned gas stations, dollar stores, and more. Expanding these centers-of-community to also serve as centers of COVID-19 response is an idea commonly suggested by *Needs Assessment* respondents (see Figure 5). With collaborative assistance from other sectors, these centers-of-community can fulfill a variety of crucial roles in the COVID-19 response.

Existing Center-of-Community

Government funders or private donors bring financial resources

Leader(s) want to help community respond to pandemic

Collaborators bring expertise and resources

Expanded Center-of-Community Functioning as a Center of COVID-19 Response

Example Activities

Creating venues for online socializing

Hosting a local WiFi hotspot

Tailoring educational materials

Role modeling protective behavior

Connecting a university team to community members to develop a pilot housing program

Hosting community health workers

Distributing supplies

Collaborating with a state agency to fund a supply distribution program

Advising a local public health agency about community strengths and needs

Helping community members obtain jobs as translators and contact tracers

Hosting a testing site

Create and expand community health worker capacity

COVID-19 is a pandemic having not only substantial impacts across Ohio but also substantially disparate impacts, which systematically disadvantage populations that are already marginalized across the state. Community health workers (CHWs) have been identified as a critical component of the COVID-19 response by the U.S. Department of Homeland Security and agencies in several other countries. [1] CHWs are "frontline public health staff who conduct outreach and build trust with vulnerable populations in federally qualified health centers (FQHCs), hospitals, public health agencies, and through community-based organizations (Smith & Wennerstrom, 2020)." Community health workers can serve a range of critical functions, including: providing links to community members they get to know over time; educating individuals and families about COVID-19 protections; helping people adapt these protections to their own life circumstances; translating written materials and providing interpretation services remotely; serving as contact tracers; helping people apply for public benefit programs; and helping to staff shelters and food pantries.

Expanding CHW capacity is thus an important mechanism for implementing the recommendations of this *Needs Assessment*. Existing CHW programs should be fully utilized to alleviate barriers to use of COVID-19 protections in the communities studied here.[2] Additional CHWs can be hired and trained from within marginalized communities across Ohio to solve COVID-protection challenges among people of color, rural residents, and people with disabilities. New CHW programs should be established with careful reference to the established procedures for doing so successfully, [3] and extra precautions should be taken to ensure that CHWs themselves have access to PPE and COVID-safe working conditions.

1 See, for example, Bhaumik et al. (2020) and Smith & Wennerstrom (2020).

2 There is evidence that this has not happened during the first months of the pandemic within the U.S.; CHWs have instead been laid off as a cost-saving measure in some locations (Smith & Wennerstrom, 2020).

3 Bhaumik et al., 2020.

Align goals and strategies, and collaborate to maximize progress toward health equity

Together, the elements above suggest the potential efficacy of multi–sectoral, community-based collaborations instituting multi-level interventions to help communities protect themselves from COVID-19. Diverse contributors to such an effort will need to align their goals and strategies in order to advance health equity, through an approach such as that articulated by the "Collaborating for Equity and Justice" framework. [1] The original collective impact concept on which this framework builds stressed that collaborators must agree on a common agenda, agree early on what constitutes success, contribute their individual strengths to the common agenda, remain connected through close communication, and coordinate their efforts through an infrastructure. [2] These basic tenets of impact-oriented collaborations must be supplemented by additional principles that facilitate collaboration to advance equity and justice. These include explicitly addressing social and economic injustice and racism; ensuring that community residents have equal power in determining the collaboration's agenda; building community ownership and leadership; and focusing on policies, systems, and structural change. [3]

The Key Recommendations of this *Needs Assessment* and the suggested strategies for achieving these objectives are consistent with these broader goals. Building community-based collaborations to alleviate barriers to COVID-19 protections experienced across the state is a strategy with significant potential: both to minimize the impact of COVID-19 on Ohio's communities, and to lay the groundwork for reduced disparities and better health across Ohio in the future.

1   Wolff et al., 2017.

2   Center for Community Health and Development, 2020; Kania & Kramer, 2011.

3   Kegler et al., 2019; Wolff et al., 2017.

4

Building on Community Assets to Improve the COVID-19 Response and Health Outcomes

Building on Community Assets to Improve the COVID-19 Response and Health Outcomes

Starting from Community Strengths and Assets

The Ohio populations studied in this *Needs Assessment* face a broad range of barriers to using the public health strategies that can protect them from COVID-19, but they are also rich in community strengths and resources that can serve as foundations to ameliorate these barriers and move forward into a healthier future. From tight-knit extended families dedicated to taking care of one another to determined leaders who are intensely responsive to the values of their communities and well-established organizations that have been building social connections for decades, all of Ohio's marginalized communities feature abundant assets alongside their needs.

The strengths-oriented – or asset-oriented – approach draws on just such foundations to plan and implement community health interventions and improvements.[1] This tradition of public health and community service thinking stems from an understanding of the flaws of earlier approaches that focus entirely on community needs in intervention planning. Needs-based approaches create one-dimensional images of communities based solely on their disease burdens or social problems and are deficiency oriented – expecting community leaders to highlight the most challenging elements of their communities to attract resources. [2] The assets-oriented approach, which we advocate as the foundation for COVID-specific action and longer-term change based on the findings reported here, focuses instead on community strengths or on the balance of strengths and needs. This results in immediate identification of ideas, methods, and connections that can be used to design interventions, and has been shown to create more creative and implementable solutions. The strengths-oriented approach to community health improvement begins with a process of community asset assessment, which involves identifying or mapping resources and strengths that can be used as rallying points to bring people together to make desired changes. These assets can include community organizations and associations (e.g.: churches, ethnic organizations, or civic event groups), economic entities (e.g.: business associations or local stores), physical spaces (e.g.: community centers or parks), institutions (e.g.: public libraries, schools, or trusted social service agencies), and individual community leaders. [3]

Both these tangible community resources and the core values and commitments of the populations studied in this *Needs Assessment* are identified above – in the detailed findings and recommendations and in the "Strengths of the Community" sections of Chapter 2. Below is a comprehensive at-a-glance list of community organizations, resources, and trusted linkages within each of the six populations of focus; a fuller document that also contains descriptions and contact information for each organization can be found here: https://go.osu.edu/inequitable-burdens-covid-19-community-resources.

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1 Kretzmann & McKnight, 2005; Rural Health Information Hub, 2020b; Sharpe et al., 2000.

2 Sharpe et al., 2000.

3 Rural Health Information Hub, 2020b.

Community Linkages and Resources At-a-Glance

The resource list below is sorted by population group. The full "Community Linkages and Resources" list from *Ohio's COVID-19 Populations Needs Assessment* contains descriptions, websites, and contact information for each of the resources listed below (see https://go.osu.edu/inequitable-burdens-covid-19-community-resources).

General Ohio Resources

Charitable Healthcare Network - http://www.charitablehealth.org

Community Health Centers of Greater Dayton (CHCGD) - http://www.communityhealthdayton.org

Coronavirus Portal for Ohio - https://coronavirus.ohio.gov

COVID CareLine - 1-800-720-9616

- The Care Line is staffed by behavioral health professionals from 8 AM to 8 PM, 7 days/week

Equitas Health - https://equitashealth.com/

Health Policy Institute of Ohio - http://www.healthpolicyohio.org

MidOhio Food Collaborative - http://www.midohiofoodbank.org/

Ohio Association of Community Action Agencies (OACAA) - http://oacaa.org/

Ohio Association of Community Health Centers (OACHC) - https://www.ohiochc.org/

- To find a community health center near you: https://findahealthcenter.hrsa.gov/

Ohio Association of Foodbanks - www.ohiofoodbanks.org

Ohio Association of Nonprofit Organizations (OANO) - https://www.facebook.com/OANO.org

Ohio Commission on Minority Health - https://mih.ohio.gov/

Ohio Department of Aging - http://aging.ohio.gov

Ohio Department of Health (ODH) - http://www.odh.ohio.gov

- If you have questions regarding Coronavirus/COVID-19, please call: 1-833-4-ASK-ODH (1-833-427-5634)

Ohio Department of Education (ODE) - http://education.ohio.gov/

Ohio Department of Job and Family Services (ODJFS) - http://jfs.ohio.gov

Ohio Department of Medicaid (ODM) - https://medicaid.ohio.gov/

Ohio Department of Mental Health and Addiction Services (OhioMHAS) - https://mha.ohio.gov/

- For treatment info or referral: 1-877-275-6364, Monday-Friday, 8am-8pm

- Crisis Text Line: Text 4HOPE to 741 741 to be connected to a trained Crisis Counselor within 5 minutes. Any person may need help in coping with a stressful situation. Reach out by text to communicate with someone trained to listen and respond in a method that is private, secure and confidential. The Crisis Text Line is a free, confidential service available 24/7 via text on mobile devices.

Ohio Department of Veterans Services (DVS) - https://dvs.ohio.gov/wps/portal/gov/dvs/

Ohio Home Energy Assistance Program (HEAP) - https://www.benefits.gov/benefit/1563

- Call HEAP toll-free from 8:00 A.M. to 5:00 P.M. Monday through Friday at: 1-800-282-0880

- For the hearing-impaired with a telecommunication device for the deaf (TTD), call toll-free at: 1-800-686-1557

Ohio Hospital Association - http://ohiohospitals.org

Ohio Housing Finance Agency (OHFA) - https://ohiohome.org/

Ohio Valley Health Center (OVHC) - http://www.ovhealthcenter.org

Resources for Black & African American Communities

General/National

100 Black Men of America - https://100blackmen.org/

Association of Black Psychologists - http://www.abpsi.org/index.html

Association of Black Women Physicians - https://www.blackwomenphysicians.org

National Association of Black Social Workers, Inc. - https://www.nabsw.org/

National Black Chamber of Commerce - https://www.nationalbcc.org/

National Black Justice Coalition - http://new.nbjc.org/

National Black Nurses Association, Inc. - https://www.nbna.org/

National Council of Negro Women, Inc. (NCNW) - https://ncnw.org/

National Medical Association - https://www.nmanet.org/

Statewide

Black Doctors USA - Ohio - https://blackdoctorsusa.com/ohio/index.htm

Black Lives Matter - http://www.blacklivesmatter.com/, https://www.blmcle.org/, https://www.facebook.com/blacklivesmattercolumbus/

National Association for the Advancement of Colored People (NAACP) - https://www.naacp-ohio.net/

National African American Male Wellness Agency (AAWellness) - https://www.aawalk.org/

Ohio Black Maternal Health Caucus (Ohio BMHC) - https://blackmaternalhealthcaucus-underwood.house.gov/

Regional

100 Black Men Cleveland Inc. - http://www.100blackmencle.org

Black, Out, & Proud (BOP) - https://www.blackoutandproud.com/

Black Queer & Intersectional Collective (BQIC) - https://bqic.net/

Celebrate One - http://www.celebrateone.info

Center for Closing the Health Gap - https://closingthehealthgap.org/

Central Ohio African American Chamber of Commerce - https://www.coaacc.org/index.html

Central Ohio Coalition of 100 Black Women Inc. Central Ohio Chapter - http://www.ncbwcentralohio.org/index.html

Cleveland Chapter of Women in NAACP - WIN - https://www.facebook.com/ClevelandWIN/

Northeast Ohio Black Health Coalition (NEOBHC) - https://www.neoblackhealthcoalition.org/

Somali Community Association of Ohio (SCAO) - http://www.somaliohio.org/

United Black Fund of Greater Cleveland Inc. (UBF) - https://www.facebook.com/unitedblackfundofgc/

Urban League of Greater Southwestern Ohio - http://www.ulgso.org

County-by-County

Cuyahoga - Cuyahoga County Section-National Council of Negro Women, Inc. - http://www.ncnw.org

Franklin - Bethany Bronzeville Community Garden/Bronzeville Growers Market - info@bronzevillegrowersmarket.com

Franklin - Columbus African American Firefighters Association (CAAFA) - https://www.caafa.org/

Franklin - Columbus Urban League (CUL) - https://www.cul.org

- Emergency Assistance Program for housing: (614) 484-9111

Franklin - Columbus Women's Care - https://columbuswomenscare.com/

Franklin - Restoring Our Own Through Transformation (ROOTT) - https://www.roottrj.org/

Hamilton - Collective Empowerment Group (CEG) Cincinnati - https://cegcincinnati.com/

Montgomery - African American Community Fund (AACF) - https://www.aacfdayton.org/

Resources for Latino and Hispanic Communities

General/National

Committee for Hispanic Families and Children - https://www.chcfinc.org/

Hispanic Heritage Foundation - https://hispanicheritage.org/

Latino Victory - https://latinovictory.us/

National Alliance for Hispanic Health - https://www.healthyamericas.org/

National Hispanic Council on Aging (NHCOA) - http://www.nhcoa.org/

National Hispanic Medical Association (NHMA) - https://www.nhmamd.org/

The Hispanic Federation - https://hispanicfederation.org

The Hispanic Institute - https://www.thehispanicinstitute.net/

UnidosUS (formerly NLCR) - https://www.unidosus.org/

United We Dream (UWD) - https://unitedwedream.org/

- MigraWatch Hotline: (844) 363-1423

Statewide

Farm Labor Organizing Committee, AFL-CIO - http://www.floc.com/wordpress/home/

La Mega Media - 103.FM - http://lamega1031.com

League of United Latin American Citizens (LULAC) Ohio - http://ohio.lulacohio.com/

Ohio Commission on Hispanic/Latino Affairs - https://www.ochla.ohio.gov/

Ohio Hispanic Coalition - http://ohiohispaniccoalition.org/

- Interpretation services for over 50 languages, on-site and in conference calls:
  - Main Line: (614) 880-2624
  - 24/7 Dispatch Line: (614) 746-1032

Ohio Immigrant Alliance - https://ohioimmigrant.org

Ohio Migrant Education Center - https://omec.nwoesc.org/

Apoyo Latino: Greater Cincinnati Latino Coalition – http://cincinnatilatino.org/ http://cincinnatilatino.org/es/covid19-recursos/

Catholic Social Services – https://www.colscss.org/

Casa de Paz Cincinnati – http://www.casadepazcinci.org/

Dayton Hispanic Chamber – https://www.facebook.com/Daytonhispchamber/

Del Pueblo, Inc. – http://delpuebloinc.org/

Esperanza, Inc. – http://www.esperanzainc.org

Hispanic Chamber Cincinnati – http://www.hispanicchambercincinnati.com/

Hispanic Chamber Columbus – https://www.hccolumbus.com/

Hispanic Senior Center – https://seniorcenter.us/sc/hispanic_senior_center_cleveland_oh

Hispanic UMADAOP (Hispanic Urban Minority Alcoholism and Drug Abuse Outreach Program, Inc.) – https://hispanicumadaop.org/

HOLA Ohio – http://www.holatoday.org

Latino Business League (Canton) – https://www.lblinc.org/

Latino Dayton – http://www.latinodayton.org/

Northeast Ohio Hispanic Center for Economic Development – http://www.hbcenter.org/

Santa Maria Community Services – https://www.santamaria-cincy.org/

Su Casa Hispanic Center Services – https://ccswoh.org/programs/su-casa-hispanic-center-services/

Young Latino Network – https://www.facebook.com/YLNCLE/

Cuyahoga - Latino Cleveland - http://www.LatinoCleveland.com

Cuyahoga - La Villa Hispana - http://www.lavillahispana.org

Cuyahoga - Spanish American Committee - http:/www.spanishamerican.org

Defiance - Advocates for Basic Legal Equality Inc. (ABLE) and Legal Aid of Western Ohio, Inc. (LAWO) - http://www.lawolaw.org/offices

- Legal Aid Line: 1-888-534-1432 or www.legalaidline.org

Franklin - Alianza 614 (Alliance 614) - https://alianza614ohio.org/

Franklin - Clínica Latina (Spanish Free Clinic) - https://www.clinicalatina.com/

Franklin - Martin de Porres Center - https://martindeporrescenter.net/

Lorain - El Centro - http://www.lorainelcentro.com/

Lucas - Northwest Hispanic Chamber of Commerce - (877) 835-2734

Resources for Asian and Asian American Communities

General/National

Ascend - https://www.ascendleadership.org/default.aspx

Asian Americans Advancing Justice (AAJC) - https://advancingjustice-aajc.org/

Asian American Advertising Federation (3AF) - http://www.3af.org/

For support and resources during the pandemic, please see: http://www.3af.org/resources/corona/

Asian American Architects and Engineers Association (AAa/e) - https://aaaesc.org/

Asian American Business Development Center - https://www.aabdc.com/

Asian American Legal Defense and Education Fund - https://www.aaldef.org/

Asian & Pacific Islander American Health Forum (APIAHF) - https://www.apiahf.org/

Asian and Pacific Islander American Vote (APIA Vote) - https://www.apiavote.org/

National Coalition for Asian Pacific American Community Development -https://www.nationalcapacd.org/

AA and NHPI In-Language Resources for Coronavirus (COVID-19): https://docs.google.com/spreadsheets/d/1XePaKv7Ar59PG7z37QqzIb8WfynEx5BK5ZfK3VLXIJA/edit#gid=0

- Materials in: Arabic, Bengali/Bangla, Burmese, Chinese, Chuukese, English, Farsi, Fijian, Gujarati, Hakha Chin, Hawaiian, Hindi, Hmong, Ilocano, Indonesian, Japanese, Kannada, Karen, Khmer/Cambodian, Korean, Lao, Malayalam, Marathi, Marshallese, Mizo Chin, Nepali, Palauan, Pashto, Panjabi/Punjabi, Rohingya, Samoan, Sindhi, Spanish, Tagalog/Filipino, Tamil, Te reo Māori, Telugu, Thai, Tongan, Urdu, and Vietnamese

Statewide

APNA Ohio - https://apnaohio.com/index.jsp

Asian American Bar Association of Ohio (AABA Ohio) - http://www.aabaohio.org/

Asian Indian Alliance (AIA) - https://aiaoh.org/

Asian American Pacific Islander Advisory Council (Ohio) - http://aapi.ohio.gov

Asian Pacific Islander American Public Affairs (APAPA Ohio) - http://www.apapa.org

Association of Asian Indian Women in Ohio (AAIWO) - http://www.aaiwo.org/

- Help Line: (440) 218-6965

Association of Philippine-Physicians of Ohio Foundation (APPO) - http://www.philamohio.com/appo/

Hmong Ohio of Tomorrow (HOOT) - https://hoothmong.wixsite.com/hoot/

Laotian Mutual Assistance Association - bounthanh@dhmcorp.net

Ohio Asian American Health Coalition (OAAHC) -https://www.facebook.com/OAAHC

Ohio Chinese American Association (OCAA) - http://www.ohiocaa.org/

Ohio Progressive Asian Women's Leadership (OPAWL) - https://www.facebook.com/teamOPAWL/

Regional

Asians & Friends - https://afcleveland.wixsite.com/website-2

Asian American Commerce Group (AACG) - https://www.aacg.org/

Asian American Community Services (AACS) - https://www.aacsohio.org/

- Call (614) 220-4023, option 1. For after-hours assistance, please call (614) 216-4988. Interpreting and translation reachable by phone, text, and email Mondays - Fridays, 9am – 5pm

Asian American Council of Dayton (AAC Dayton) - http://aacdayton.org/

Asian Community Alliance (ACA) - https://asiancommunityalliance.org/

Asian Festival Corporation – Health & Wellness Committee (AFHW)

- Director: Cora Munoz, Ph.D. cora.munoz3@gmail.com, Secretary: Ana Sucaldito, MPH, sucaldito.3@buckeyemail.osu.edu

Asian Services In Action, Inc. (ASIA, Inc.) - http://www.asiaohio.org/

ASIA - International Community Health Center (ASIA-ICHC) - http://www.asiaohio.org/ichc/

Association of Indian Physicians of Northern Ohio (AIPNO) - http://www.aipno.org

Bangladesh Association of Central Ohio (BACO) - http://www.bacosite.org

Bhutanese Community of Central Ohio - https://www.bccoh.org/

Bhutanese Community of Cincinnati - https://www.facebook.com/BCCOHIO/

Bhutanese Community of Greater Cleveland (BCGC) - https://thebcgc.org/

Chinese American Association of Cincinnati - http://caacohio.org/

Chinese Association of Greater Toledo - http://www.toledochinese.org/

Federal of Indian Associations - Ohio (FIA-Ohio) - http://www.fia-ohio.org/

Federation of India Community Associations (FICA) of Northeast Ohio - https://www.ficacleveland.org/

Filipino-American Association of Southern Ohio (FASO) - https://fasomabuhay.com/

Greater Cincinnati Chinese Chamber of Commerce - https://www.facebook.com/cincichinesechamber/

International Hindi Association - https://hindi.org/Chapters.html

Japan-America Society of Central Ohio (JASCO) - https://jas-co.org/

Japanese American Citizens League (JACL) - http://www.jaclcleveland.org/ and https://www.facebook.com/cincyJACL

Japanese Association of Northeast Ohio (JANO) - http://www.janosakura.org/

Korean American Association of Greater Cleveland - http://www.clekorean.org/

MotivAsians for Cleveland - https://motivasians.org/

OCA Greater Cleveland – Asian Pacific American Advocates - https://ocagc.org/

Philippine American Society of Central Ohio (PASCO) - http://pascocmh.wixsite.com/pasco

Philippine American Society of Ohio (PASO) https://www.facebook.com/PhilippineAmericanSocietyofOhio/

Philippine Nurses Association of Ohio - http://pnaohio.org/

Vietnamese Community in Greater Cleveland/Vietnamese Community Center of Greater Cleveland - https://www.facebook.com/The-Vietnamese-Community-In-Greater-Cleveland-497601260387435/

County-by-County

Cuyahoga - Asia Plaza Pharmacy - https://www.asiaplazapharmacy.com/

Cuyahoga - Cleveland Asian Festival - https://clevelandasianfestival.org/2020/

Cuyahoga - Feed AsiaTown - https://www.asiatowncleveland.org/feed-asiatown/

Cuyahoga - Friendship Foundation of American Vietnamese - http://www.ffavn.org/index.php

Cuyahoga - Salaam Cleveland - https://www.salaamcleveland.org

- Salaam Cleveland Main Line: (216) 309-0304; Salaam Clinic Line: (216) 505-9800

Franklin - Asian Health Initiative Free Clinic (AHI Free Clinic) - https://ahifreeclinic.wixsite.com/site

Franklin - ASHA Ray of Hope - 24/7 Helpline: (614) 565-2918

Summit - Healthy Asian Pacific Islander Fresh Program (HAPI Fresh) Farm - http://www.asiaohio.org/services/ssdepartment/hapi-fresh-farmers-market/

Resources for Immigrant and Refugee Communities

General/National

60 Resources for Supporting Immigrant and Refugee Communities - https://www.onlinemswprograms.com/resources/social-issues/support-resources-immigrants-refugees/

American Academy of Pediatrics (AAP) Immigrant Health Toolkit - https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Immigrant-Child-Health-Toolkit/Pages/Immigrant-Child-Health-Toolkit.aspx

U.S. Citizenship & Immigration Services (USCIS) - https://www.uscis.gov/

U.S. Department of State Bureau of Population, Refugees & Migration (PRM) - https://www.state.gov/bureaus-offices/under-secretary-for-civilian-security-democracy-and-human-rights/bureau-of-population-refugees-and-migration/

Statewide

Franklin - ASHA Ray of Hope - 24/7 Helpline: (614) 565-2918

Bhutanese Refugee Assistance Volunteer Effort (BRAVE) Ohio - https://www.facebook.com/BRAVEOhio/

Charitable Healthcare Network (formerly the Ohio Association of Free Clinics) - https://ohiofreeclinics.org/

Council on American-Islamic Relations (CAIR Ohio) - https://www.cairohio.com/

Healthy Asian Pacific Islander Fresh Program (HAPI Fresh) Farm - http://www.asiaohio.org/services/ssdepartment/hapi-fresh-farmers-market/

Hmong Ohio of Tomorrow (HOOT) - https://hoothmong.wixsite.com/hoot/

Laotian Mutual Assistance Association - Bounthanh Phommasathit, bounthanh@dhmcorp.net

Muslim Family Services of Ohio - http://ohiomfs.org

Ohio Asian American Health Coalition (OAAHC) - https://www.facebook.com/OAAHC

Ohio Department of Job and Family Services, Refugee Services Section - refugee@jfs.ohio.gov

Ohio New Africans Immigrants Commission - https://naic.ohio.gov/

SomaliCAN - http://www.somalican.org/home

ASIA, Inc. (Akron and Cleveland) – http://www.asiaohio.org/

ASIA, Inc. – International Health Center – http://www.asiaohio.org/ichc/

Asian American Community Services (AACS) (Central Ohio) – https://www.aacsohio.org/

Asian Community Alliance (ACA) (Cincinnati area) – https://asiancommunityalliance.org/

Avanza Together (Central Ohio) – https://www.avanzatogether.org/

Bhutanese Community of Central Ohio – https://www.bccoh.org/

Bhutanese Community of Cincinnati – https://www.facebook.com/BCCOHIO/

Bhutanese Community of Greater Cleveland (BCGC) – https://thebcgc.org/

Catholic Charities Southwestern Ohio – Refugee Resettlement Department – https://ccswoh.org/programs/refugee-resettlement-services/

Catholic Charities Diocese of Cleveland - Migration & Refugee Services (MRS) https://www.ccdocle.org/service-areas/migration-refugee-services

Catholic Social Services of the Miami Valley – Refugee Resettlement Department – https://cssmv.org/services/refugees/

Cincinnati Compass – http://www.cincinnaticompass.org/

Community Refugee & Immigration Services (CRIS) – https://www.crisohio.org/

Ethiopian Tewahedo Social Services (ETSS) – https://ethiotss.org/

International Institute of Akron (IIA) – https://www.iiakron.org/

Liberians in Columbus, Inc. (LICI) – http://www.lici.org/

Nigerians in Diaspora Organization - Ohio – http://www.nidoaohio.org/

Noor Community Clinic/Muslim Clinic of Ohio (MCO) – https://www.noorohio.org/noor-free-clinic/

Ourhelpers – https://www.ourhelpers.org/

Salaam Cleveland and Salaam Clinic – https://www.salaamcleveland.org

Somali Community Association of Ohio (SCAO) – http://www.somaliohio.org/

The Refugee Response – https://www.refugeeresponse.org/

U.S. Committee for Refugees and Immigrants (USCRI) Cleveland – https://refugees.org/field-office/cleveland/

US Together – https://www.ustogether.us/

County-by-County

Cuyahoga - Global Cleveland - https://globalcleveland.org/

Cuyahoga - Refugee Services Collaborative of Greater Cleveland - http://rsccleveland.org

Cuyahoga - The Hope Center for Refugees and Immigrants - https://buildinghopeinthecity.org/cleveland/the-hope-center/

Franklin - Asian Health Initiative Free Clinic (AHI Free Clinic) - https://ahifreeclinic.wixsite.com/site

Franklin - Bhutanese Nepali Community of Columbus (BNCC) - https://www.bccoh.org/

Resources for Rural Communities

General/National

American Hospital Association Rural Health Services - https://www.aha.org/resources/2020-05-01-rural-covid-19-resources

Center for Rural Affairs (CRA) - https://www.cfra.org/

Centers for Disease Control and Prevention, Rural Health - https://www.cdc.gov/ruralhealth/index.html

National Association of Rural Health Clinics (NARHC) - https://www.narhc.org/narhc/default.asp

National Association for Rural Mental Health (NARMH) - https://www.narmh.org/

National Center for Farmworker Health (NCFH) - http://www.ncfh.org/

National Center for Frontier Communities (NCFC) - http://frontierus.org/

National Rural Assembly - https://ruralassembly.org/

National Rural Health Association (NRHA) - https://www.ruralhealthweb.org/

North Central Regional Center for Rural Development (NCRCRD) -

https://www.canr.msu.edu/ncrcrd/

National Rural Recruitment & Retention Network (3RNet) - https://www.3rnet.org/

Rural Behavioral Health Initiative for Children, Youth, and Families (RBH Initiative for Children, Youth, and Families) - https://ruralbehavioralhealth.org/

Rural Community Assistance Partnership (RCAP) - https://www.rcap.org/

Rural Health Information Hub (RHIhub) - https://www.ruralhealthinfo.org/

Rural LISC - https://www.lisc.org/rural/

Rural Nurse Organization (RNO) - https://www.rno.org/

Rural Policy Research Institute (RUPRI) - http://www.rupri.org/

Statewide

Appalachian Center for Economic Networks (ACEnet) – https://acenetworks.org/news/covid-19-relief-resources-for-small-businesses-individuals-nonprofits/

Appalachian Growth Capital – https://appcap.org/

Community Food Initiatives (CFI) – https://communityfoodinitiatives.org/

Corporation for Ohio Appalachian Development (COAD) – http://www.coadinc.org

Ohio Emergency PPE Makers Exchange – https://repurposingproject.sharetribe.com/?view=map

Ohio Rural Community Assistance Program (RCAP) – https://www.glcap.org/programs/community-rural-development/rural-community-assistance-program-rcap/rcap-services-in-ohio/

Ohio Rural Health Association – https://www.ohioruralhealth.org/

Ohio Rural Water Association – https://www.ohioruralwater.org/

Ohio State Office of Rural Health (SORH) – https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/state-office-of-rural-health/sorh/

U.S. Department of Agriculture Rural Development (USDARD) – Ohio – https://www.rd.usda.gov/oh

Rural Health Centers in Ohio – https://carelistings.com/find/rural-health-centers/ohio

Regional

Hocking Athens Perry Community Action (HAPCAP) – http://www.hapcap.org/

Ohio University Community Health Programs – https://www.ohio.edu/medicine/community-health/community-clinic/index.cfm

Sisters Health Foundation – https://sistershealthfdn.org/

South Central Ohio Job & Family Services (SCOJFS) – http://scojfs.org/index.html

SE Ohio Foodbank & Kitchen – www.seofoodbank.org

Tri-County Mental Health and Counseling Services, Inc. – 24 Hour Crisis Line: 1-888-475-8484

County-by-County

Athens - Appalachian Rural Health Institute - https://www.ohio.edu/chsp/appalachian-rural-health

Athens - Athens County Foundation - http://www.athensfoundation.org

Athens - Athens Farmers Market - www.athensfarmermarket.org

Athens - Foundation for Appalachian Ohio - www.appalachianohio.org

Athens - Nelsonville Food Cupboard - https://www.facebook.com/Nelsonville-Food-Cupboard-1487528421530879/

Athens - Osteopathic Heritage Foundations - http://www.osteopathicheritage.org/

Adams - Adams Brown Community Action Partnership (ABCAP) - http://abcap.net/

Allen - Mental Health & Recovery Services Board of Allen, Auglaize, and Hardin Counties - https://www.wecarepeople.org/

- Call 1-800-567-4673, or text 741 741

Allen - Salvation Army of Lima, Ohio - https://swo.salvationarmy.org/lima/

Ashland - Ashland Christian Health Center - https://www.ashlandchristianhealthcenter.org/

Ashtabula - Ashtabula County Medical Center - https://www.acmchealth.org/

Ashtabula - University Hospitals (UH) Conneaut Medical Center - 440-593-1131

Ashtabula - University Hospitals (UH) Geneva Medical Center - https://www.uhhospitals.org/locations/uh-geneva-medical-center, 440-466-1141

Athens - Holzer - https://www.holzer.org/

Auglaize - Mental Health & Recovery Services Board of Allen, Auglaize, and Hardin Counties - https://www.wecarepeople.org/

- Call 1-800-567-4673, or text 741 741

Brown - Adams Brown Community Action Partnership (ABCAP) - http://abcap.net/

Clermont - HealthSource of Ohio - https://www.healthsourceofohio.org/

Columbiana - Community Action Agency of Columbiana County - http://www.caaofcc.org/

Columbiana - Family Recovery Center - http://www.familyrecovery.org/home

Coshocton - Coshocton County Health Department - https://www.coshoctoncounty.net/health/

Coshocton - Coshocton Regional Medical Center - https://www.coshoctonhospital.org/

Defiance - Defiance County Emergency Management Agency (EMA) - ema@defiance-county.com, (419) 782-1130

Defiance - Maumee Valley Guidance Center - https://www.maumeevalleyguidancecenter.org/, 1.800.569.3980

Fulton - Maumee Valley Guidance Center - https://www.maumeevalleyguidancecenter.org/,

- 1.800.569.3980

Guernsey - Southeastern Ohio Regional Medical Center - https://www.seormc.org/

Hamilton - HealthSource of Ohio - https://www.healthsourceofohio.org/

Hamilton - Samaritan Outreach Services - http://samaritanoutreachservices.com/

Hamilton - TriHealth - https://www.trihealth.com/, 513.569.1900

Hardin - Mental Health & Recovery Services Board of Allen, Auglaize, and Hardin Counties - https://www.wecarepeople.org/

- Call 1-800-567-4673, or text 741 74

Henry - Henry County Health Department - https://www.henrycountyohio.gov/health.htm

Henry - Henry County Senior Center - https://henrycountyseniorcenter.com/

Henry - Maumee Valley Guidance Center - https://www.maumeevalleyguidancecenter.org/, 1.800.569.3980

Highland - Highland District Hospital - https://hdh.org/

Highland - Highland Health Providers - http://hhproviders.org/home/

Lawrence - Lawrence County Health Department - https://www.facebook.com/lawcohd.org/

Logan - Community Health & Wellness Partners of Logan County - https://www.chwplc.org/

Mahoning - Alliance Family Health Center - https://www.alliancefamilyhealth.org/

Mahoning - Sojourner House Domestic Violence Program - https://sojournerhouse.com/

Madison - Madison County Public Health - https://www.co.madison.oh.us/services/public_health/index.php

Madison - Madison County Senior Center - http://www.mcsenior.org/

Madison - Rocking Horse Community Health Center - https://www.rockinghorsecenter.org/

Medina - Alternative Paths - https://www.alternativepaths.org/

- 24/7 Crisis & Behavioral Health Helpline (330) 725-9195

Medina - Lodi Hospital - https://my.clevelandclinic.org/locations/lodi-hospital

Medina - Medina County Health Department - https://medinahealth.org/

Muskingum - Christ's Table - https://www.facebook.com/christstable

Muskingum - Genesis Healthcare System - https://www.genesishcs.org/

Muskingum - Muskingum County Center for Seniors - https://www.mccfs.org/

Muskingum - Muskingum Valley Health Centers - https://www.mvhccares.org/

Perry - Genesis Perry County Medical Center - https://www.genesishcs.org/care-treatment/genesis-perry-county-medical-center/

Perry - Perry Behavioral Health Choices - http://perrybhc.org/

Pike - Pike County Community Action - https://www.pikecac.org/

Richland - Hopewell Health Centers - http://www.hopewellhealth.org/

Ross - Adena Health System - https://www.adena.org/

Ross - Hope Clinic of Ross County - http://hopeclinicfree.org/

Ross - Ross County Community Action Commission, Inc. - http://rossccac.org/

Sandusky - Community Health Services - https://www.fremontchs.com/

Stark - Alliance Family Health Center - https://www.alliancefamilyhealth.org/

Tuscarawas - Bridges to Wellness - https://www.accesstusc.org/bridges-to-wellness

Tuscarawas - Community Family Health Center - https://cmhdover.org/health-center

Tuscarawas - Trinity Hospital Twin City - https://www.trinitytwincity.org/

Tuscarawas - Tuscarawas County Health Department - http://www.tchdnow.org/

Tuscarawas - Twin City Christian Service Center - https://www.facebook.com/Twin-City-Christian-Service-Center-306498846540109/

Tuscarawas - Union Hospital - https://my.clevelandclinic.org/locations/union-hospital

Tuscarawas - Great Dover-New Philadelphia Food Pantry - http://www.greaterdover-newphiladelphiafoodpantry.com/

Van Wert - Family Health Care of Northwest Ohio - https://familyhealthnwo.org/

Van Wert - Life House Church - https://lifehousepeople.com/

Warren - HealthSource of Ohio - https://www.healthsourceofohio.org/

Washington - Marietta Memorial Hospital - http://www.mhsystem.org/

- 24/7 Nurse Line - (844) 474-6522

Washington - Washington County Health Department - https://www.washingtongov.org/137/Health-Department

Williams - Maumee Valley Guidance Center - https://www.maumeevalleyguidancecenter.org/, 1.800.569.3980

Williams - Williams County Health District - http://www.williamscountyhealth.org/

Wyandot - Wyandot Memorial Hospital - https://www.wyandotmemorial.org/

Resources for Individuals with Disabilities

General/National

American Association on Intellectual and Developmental Disabilities (AAIDD) - http://aaidd.org/

American Association of People with Disabilities - http://www.aapd.com

Center for Universal Design (CUD) -http://www.ncsu.edu/www/ncsu/design/sod5/cud

DifferentNeedz.com - http://www.differentneedz.com

Disabled American Veterans - http://www.dav.org

National Center for Accessible Media - http://ncam.wgbh.org/

National Council on Disability (NCD) - http://www.ncd.gov

Special Needs Alliance - https://www.specialneedsalliance.org/find-an-attorney/ohio/

Statewide

American Council for the Blind of Ohio - http://www.acbohio.org/

Arc of Ohio - http://www.thearcofohio.org

Art Possible Ohio - http://artpossibleohio.org

Assistive Technology of Ohio - https://atohio.org/

Autism Speaks - Ohio - https://www.autismspeaks.org/ohio-0

Brain Injury Association of Ohio (BIAOH) - https://www.biaoh.org/ Help Line: (614) 481-7100

Disability Network of Ohio – Solidarity (DNOS) - https://www.frnohio.org/resources/listing/disability-network-of-ohio-solidarity

Disability Rights Ohio - https://www.disabilityrightsohio.org/

Governor's Council on People with Disabilities(GCPD) - donna.foster@ood.ohio.gov

National Alliance on Mental Illness of Ohio (NAMI Ohio) - namiohio@namiohio.org

- HelpLine: (800) 686-2646 Monday-Friday, 9AM-5PM

- Text NAMI to 741741

Ohio Association of Area Agencies on Aging (o4a) - http://ohioaging.org/

Ohio Association of County Behavioral Health Authorities - http://www.oacbha.org/

Ohio Association of County Boards Serving People with Developmental Disabilities (OACB) - http://www.oacbdd.org/index.php

Ohio Associations of the Deaf / National Associations of the Deaf - http://oad-deaf.org

Ohio Bureau of Vocational Rehabilitation – https://oodworks.com

Ohio Center for Autism and Low Incidence (OCALI) – http://www.ocali.org

Ohio Coalition for the Education of Children with Disabilities (OCECD) – https://www.ocecd.org

Ohio Department of Aging (ODA) – http://aging.ohio.gov

Ohio Developmental Disabilities Council (ODDC) – http://www.ddc.ohio.gov

Ohio Disability and Health Program – http://nisonger.osu.edu/odhp

Ohio Federation of the Blind – https://nfbohio.org/

Ohio Statewide Independent Living Council (SILC) – http://www.ohiosilc.org/

Opportunities for Ohioans with Disabilities (OOD) – https://ood.ohio.gov

People First of Ohio – http://www.peoplefirstohio.org/

Relay Ohio – https://www.ohiorelay.com/

- Dial 711

Regional

Alzheimer's Association – http://www.alz.org/ – 24/7 National Helpline: 1-800-272-3900

Autism Treatment Network – https://www.autismspeaks.org/autism-treatment-network-atn

- Columbus, OH: (614) 355-7500; Cincinnati, OH: (513) 636-1665

Bridges to Independence – https://bridgestoindependence.com

Champaign Residential Services, Inc. (CRSI) – http://www.crsi-oh.com

Deaf Services Center – https://www.dsc.org/

Direct Support Professional Ohio / DSP Ohio – http://www.dspohio.org

Hallenross and Associates, LLC – https://www.hallenross.com/

Mobile-Disability Resource Center – https://www.mobileonline.org

Southeastern Ohio Center for Independent Living (SOCIL-Ohio) – http://www.socil.org/

County-by-County

Cuyahoga - Cleveland Sight Center - http://www.clevelandsightcenter.org/

Cuyahoga - LEAP Cleveland - http://leapinfo.org

Cuyahoga - Paralyzed Veterans of America - http://www.pva.org

Fairfield - Fairfield County Board of Developmental Disabilities - https://www.fairfielddd.com

Franklin - Columbus Speech and Hearing - http://www.columbusspeech.org

Franklin - Nisonger Center - http://nisonger.osu.edu/

Franklin - Ohio State School for the Blind (OSSB) - http://www.ossb.oh.gov

Hamilton - Center for Possibilities - https://centerforpossibilities.org

Henry - Henry County Board of Developmental Disabilities/ HOPE Services - https://www.henrydd.org

Licking - Center for Disability Services - https://www.centerds.org/index.html

Montgomery - The Access Center - http://www.acils.com

Morrow - Morrow County Developmental Disabilities - https://www.morrowdd.com

Summit - Community Support Services, Inc. - https://www.cssbh.org/

References

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Abedi, V., Olulana, O., Avula, V., Chaudhary, D., Khan, A., Shahjouei, S., Li, J., & Zand, R. (2020). Racial, economic and health inequality and COVID-19 infection in the United States. *Journal of Racial and Ethnic Health Disparities.* https://doi.org/10.1007/s40615-020-00833-4

Abe-Kim, J., Takeuchi, D. T., Hong, S., Zane, N., Sue, S., Spencer, M. S., Appel, H., Nicdao, E., & Alegría, M. (2007). Use of mental health-related services among immigrant and US-born Asian Americans: Results from the National Latino and Asian American study. *American Journal of Public Health*, *97*, 91-98. https://doi.org/10.2105/AJPH.2006.098541

Acker, J., Braveman, P., Arkin E., Leviton, L., Parsons, J., & Hobor, G. (2018). *Mass incarceration threatens health equity in America.* The Robert Wood Johnson Foundation. https://www.rwjf.org/en/library/research/2019/01/mass-incarceration-threatens-health-equity-in-america.html

Adams, C. (2020, June 18). *Not all black people are African American. Here's the difference.* CBS News. https://www.cbsnews.com/news/not-all-black-people-are-african-american-what-is-the-difference/

Advisory Committee on Human Radiation Experiments. (1996). *The human radiation experiments: Final report of the Advisory Committee on Human Radiation Experiments*. Oxford University Press.

Akiyama, M. J., Spaulding, A. C., & Rich, J. D. (2020). Flattening the curve for incarcerated populations—COVID-19 in jails and prisons. *New England Journal of Medicine, 382*(22), 2075–2077. https://doi.org/10.1056/NEJMp2005687

Alexander, M. (2012). *The new Jim Crow: Mass incarceration in the age of colorblindness.* The New Press.

Alliance for Human Research Protection. (2014, December 28). *1952-1964: Chester M. Southam, MD, injected live cancer cell into 14 patients and healthy convicts.* https://ahrp.org/1952-1964-chester-m-southam-md-injected-live-cancer-cells-into-14-patients-with-advanced-cancer-and-into-healthy-convicts-at-ohio-state-prison/

Almeida, J., Biello, K. B., Pedraza, F., Wintner, S., & Viruell-Fuentes, E. (2016). The association between anti-immigrant policies and perceived discrimination among Latinos in the US: A multilevel analysis. *SSM Population Health*, *2*, 897-903. http://dx.doi.org/10.1016/j.ssmph.2016.11.003

American Immigration Council. (2020, August 6). *Immigrants in Ohio fact sheet.* https://www.americanimmigrationcouncil.org/research/immigrants-ohio#:~:text=Five%20percent%20of%20Ohio%20residents,5%20percent%20of%20the%20population

American Public Health Association. (2020). *Declarations of racism as a public health issue.* https://www.apha.org/topics-and-issues/health-equity/racism-and-health/racism-declarations

Americans with Disabilities Act Compliance, Ohio Administrative Code, 3337-3-03 (2016), available at: http://codes.ohio.gov/oac/3337-3-03v1

Anderson, L. M., St. Charles, J., Fullilove, M. T., Scrimshaw, S. C., Fielding, J. E., Normand, J. & Task Force on Community Preventive Services (2003). Providing affordable family housing and reducing residential segregation by income. A systematic review. *American Journal of Preventive Medicine, 24*(3 Suppl), 47–67. https://doi.org/10.1016/S0749-3797(02)00656-6

Anderson, M. (2015, April 5). *A rising share of the U.S. Black population is foreign born: 9 percent are immigrants; and while most are from the Caribbean, Africans drive recent growth.* Pew Research Center. https://www.pewsocialtrends.org/2015/04/09/a-rising-share-of-the-u-s-black-population-is-foreign-born/

Anderson, M., Perrin, A., Jiang, J., & Kumar, M. (2019, April 22). *10% of Americans don't use the internet. Who are they?* Pew Research Center. https://www.pewresearch.org/fact-tank/2019/04/22/some-americans-dont-use-the-internet-who-are-they/

Appalachian Regional Commission. (2015). *Investing in Appalachia's future: The Appalachian Regional Commission's five-year strategic plan for capitalizing on Appalachia's opportunities: 2016-2020.* https://www.arc.gov/wp-content/uploads/2016/10/InvestinginAppalachiasFutureARCs2016-2020StrategicPlan.pdf

Appiah, K. A. (2020, June 18). *The case for capitalizing the B in Black*. The Atlantic. https://www.theatlantic.com/ideas/archive/2020/06/time-to-capitalize-blackand-white/613159/

Armstrong, K., McMurphy, S., Dean, L. T., Micco, E., Putt, M., Halbert, C. H., Schwartz, J. S., Sankar, P., Pyeritz, R. E., Bernhardt, B., & Shea, J. A. (2008). Differences in the patterns of health care system distrust between Blacks and Whites. *Journal of General Internal Medicine*, 23(6), 827–833. https://doi.org/10.1007/s11606-008-0561-9

Armstrong, K., Putt, M., Halbert, C. H., Grande, D., Schwartz, J. S., Liao, K., Marcus, N., Demeter, M. B., & Shea, J. A. (2013). Prior experiences of racial discrimination and racial differences in health care system distrust. *Medical Care, 51*(2), 144–150. https://doi.org/10.1097/MLR.0b013e31827310a1

Armstrong, K, Ravenell, K. L., McMurphy, S., & Putt, M. (2007). Racial/ethnic differences in physician distrust in the United States. *American Journal of Public Health, 97*(7), 1283–1289. https://doi.org/10.2105/AJPH.2005.080762

Arons, M. M., Hatfield, K. M., Reddy, S. C., Kimball, A., James, A., Jacobs, J. R., Taylor, J., Spicer, K., Bardossy, A. C., Oakley, L. P., Tanwar, S., Dyal, J. W., Harney, J., Chisty, Z., Bell, J. M., Methner, M., Paul, P., Carlson, C. M., McLaughlin, H. P., … Jernigan, J. A. (2020). Presymptomatic SARS-CoV-2 infections and transmission in a skilled nursing facility. *New England Journal of Medicine*, 382(22), 2081–2090. https://doi.org/10.1056/NEJMoa2008457

Ashmead, R., Sahr, T., & Havercamp, S. M. (2013). *2013 Ohio disability data report: Ohio disability and health program*. The Ohio Colleges of Medicine Government Resource Center, The Ohio State University Nisonger Center. https://nisonger.osu.edu/wp-content/uploads/2016/11/OhioDisabilityDataReport_Ohio.pdf

Asian American Center for Advancing Justice. (2015). *A community of contrasts: Asian Americans, Native Hawaiians and Pacific Islanders in the Midwest, 2012.* https://www.advancingjustice-chicago.org/wp-content/uploads/2015/08/Community_of_Contrasts_Midwest_2012.pdf

Asian and Pacific Islander American Vote (APIAVote). (2020, February). *2020 state factsheet: Ohio.* https://www.apiavote.org/sites/default/files/2020-02/Ohio-2020.pdf

Asian Pacific Partners for Empowerment, Advocacy and Leadership (APPEAL). (2014). *Health disparities faced by Asian Americans, Native Hawaiians and Pacific Islanders.* https://appealforhealth.org/wp-content/uploads/2014/06/4761_HealthDisparitiesFacedbyAANHPI_FactSheet_v.3.pdf

Asian Pacific Policy and Planning Council. (2020, August 5). *Stop AAPI hate national report 3.19.20 - 8.5.20.* https://www.asianpacificpolicyandplanningcouncil.org/wp-content/uploads/STOP_AAPI_Hate_National_Report_3.19-8.5.2020.pdf

Aumann, F. R., Knepper, G. W., & Wallenfeldt, J. (2020, July 23). *Ohio.* In *Encyclopedia Britannica.* https://www.britannica.com/place/Ohio-state

Aydin, O., Emon, B., Cheng, S., Hong, L., Chamorro, L. P., & Saif, M. T. A. (2020). Performance of fabrics for home-made masks against the spread of COVID-19 through droplets: A quantitative mechanistic study. *Extreme Mechanics Letters, 40*, 100924. https://doi.org/10.1016/j.eml.2020.100924

Baggett, T. P., Tobey, M. L., & Rigotti, N. A. (2013). Tobacco use among homeless people— Addressing the neglected addiction. *New England Journal of Medicine, 369*(3), 201–204. https://doi.org/10.1056/NEJMp1301935

Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Basset, M. T. (2017). Structural racism and health inequities in the USA: Evidence and interventions. *The Lancet, 389*(10077), 1453-1463. https://doi.org/10.1016/S0140-6736(17)30569-X

Balcázar, H., Wise, S., Rosenthal, E.L., Ochoa, C., Rodriguez, J., Hastings, D., Flores, L., Hernanadez, L., & Duarte-Gardea, M. (2012) An ecological model using *promotores de salud* to prevent cardiovascular disease on the US-Mexico border: The HEART Project. *Preventing Chronic Disease: Public Health Research, Practice, and Policy, 9.* http://dx.doi.org/10.5888/pcd9.110100

Banke-Thomas, A., Agbemenu, K., & Johnson-Agbakwu, C. (2019). Factors associated with access to maternal and reproductive health care among Somali refugee women resettled in Ohio, United States: A cross-sectional survey. *Journal of Immigrant Minority Health, 21*(5), 946–953. https://doi.org/10.1007/s10903-018-0824-4

Bashir S. A. (2002). Home is where the harm is: Inadequate housing as a public health crisis. *American Journal of Public Health, 92*(5), 733–738. https://doi.org/10.2105/ajph.92.5.733

Baxter, A. J., Tweed, E. J., Katikireddi, S. V., & Thomson, H. (2019). Effects of housing first approaches on health and well-being of adults who are homeless or at risk of homelessness: Systematic review and meta-analysis of randomised controlled trials. *Journal of Epidemiology & Community Health, 73*(5), 379–387. https://doi.org/10.1136/jech-2018-210981

Bell, D. M., & World Health Organization Working Group on Prevention of International and Community Transmission of SARS. (2004). Public health interventions and SARS spread, 2003. *Emerging Infectious Diseases*, *10*(11), 1900-1906. https://doi.org/10.3201/eid1011.040729

Benin, M., & Keith, V. M. (1995). The social support of employed African American and Anglo mothers. *Journal of Family Issues, 16*(3), 275–297. https://doi.org/10.1177/019251395016003003

Berkley-Patton, J., Thompson, C. B., Moore, E., Hawes, S., Simon, S., Goggin, K., Martinez, D., Berman, M., & Booker, A. (2016). An HIV testing intervention in African American churches: Pilot study findings. *Annals of Behavioral Medicine*, *50*(3), 480–485. http://dx.doi.org/10.1007/s12160-015-9758-4

Berkman, L. F., Kawachi, I., & Glymour, M. M. (Eds.). (2014). *Social epidemiology, 2nd edition.* Oxford University Press.

Bhaumik, S., Moola, S., Tyagi, J., Nambiar, D., & Kakoti, M. (2020). Community health workers for pandemic response: A rapid evidence synthesis. *MedRxiv Preprint*. https://doi.org/10.1101/2020.04.28.20082586

Bird, S. T., & Bogart, L. M. (2001). Perceived race-based and socioeconomic status(SES)-based discrimination in interactions with health care providers. Ethnicity & Disease, 11(3), 554–563.

Blewett, L.A., Johnson, P. J., Lee, ., & Scal, P.B. (2008). When a usual source of care and usual provider matter: Adult prevention and screening services. *Journal of General Internal Medicine*, *23*, 1354–1360. https://doi.org/10.1007/s11606-008-0659-0

Bodas, M., & Peleg, K. (2020). Self-isolation compliance in the COVID-19 era influenced by compensation: Findings from a recent survey in Israel. *Health Affairs, 39*(6), 936–941. https://doi.org/10.1377/hlthaff.2020.00382

Boldrini, P., Garcea, M., Brichetto, G., Reale, N., Tonolo, S., Falabella, V., Fedeli, F., Cnops, A.A., & Kiekens, C. (2020). Living with a disability during the pandemic. "Instant paper from the field" on rehabilitation answers to the COVID-19 emergency. *European Journal of Physical and Rehabilitation Medicine*, *56*(3), 331–334. https://doi.org/10.23736/S1973-9087.20.06373-X

Bolin, J. N., Bellamy, G. R., Ferdinand, A. O., Vuong, A. M., Kash, B. A., Schulze, A., & Helduser, J. W. (2015). Rural healthy people 2020: New decade, same challenges. *The Journal of Rural Health: Official Journal of the American Rural Health Association and the National Rural Health Care Association*, *31*(3), 326–333. https://doi.org/10.1111/jrh.12116

Breiding, M. J., & Armour, B. S. (2015). The association between disability and intimate partner violence in the United States. *Annals of Epidemiology*, *25*(6), 455–457. https://doi.org/10.1016/j.annepidem.2015.03.017

Brondolo, E., Gallo, L. C., & Myers, H. F. (2009). Race, racism and health: Disparities, mechanisms, and interventions. *Journal of Behavioral Medicine, 32*(1), 1-8. https://doi.org/10.1007/s10865-008-9190-3

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist, 32*(7), 513-531. https://doi.org/10.1037/0003-066X.32.7.513

Brown, A. (2020, February 25). *The changing categories the U.S. census has used to measure race.* The Pew Research Center. https://www.pewresearch.org/fact-tank/2020/02/25/the-changing-categories-the-u-s-has-used-to-measure-race/

Brucker, D. L., & Houtenville, A. J. (2015). People with disabilities in the United States. *Archives of Physical Medicine and Rehabilitation*, *96*(5), 771–774. https://doi.org/10.1016/j.apmr.2015.02.024

Brunette, M. J. (2005). Development of educational and training materials on safety and health: Targeting Hispanic workers in the construction industry. *Family & Community Health, 28*(3), 253-266. https://doi.org/10.1097/00003727-200507000-00006

Burke, M. (2020, March 27). *Ventilators limited for the disabled? Rationing plans are slammed amid coronavirus crisis.* NBC News. https://www.nbcnews.com/news/us-news/ventilators-limited-disabled-rationing-plans-are-slammed-amid-coronavirus-crisis-n1170346

Came, H., & Griffith, D. (2018). Tackling racism as a "wicked" public health problem: Enabling allies in anti-racism praxis. *Social Science & Medicine, 199*, 181–188. https://doi.org/10.1016/j.socscimed.2017.03.028

Campbell, F. K. (2009). Medical education and disability studies. Journal of Medical Humanities, *30*(4), 221-235. https://doi.org/10.1007/s10912-009-9088-2

Campbell, M. K., Hudson, M. A., Resnicow, K., Blakeney, N., Paxton, A., & Baskin, M. (2007). Church-based health promotion interventions: Evidence and lessons learned. *Annual Review of Public Health*, *28*(1), 213–234. https://doi.org/10.1146/annurev.publhealth.28.021406.144016

Campos, B., Ullman, J.B., Aguilera, A., & Dunkel Schetter, C. (2014). Familism and psychological health: The intervening role of closeness and social support. *Cultural Diversity and Ethnic Minority Psychology, 20*(2),191-201. https://doi.org/10.1037/a0034094

Capps, R. & Gelatt, J. (2020, May). *Barriers to COVID-19 testing and treatment: Immigrants without health insurance coverage in the United States*. Migration Policy Institute. https://www.migrationpolicy.org/research/covid-19-testing-treatment-immigrants-health-insurance

Capps, R., Batalova, J., & Gelatt, J. (2020, June). *COVID-19 and unemployment: Assessing the early fallout for immigrants and other U.S. workers*. Migration Policy Institute. https://www.migrationpolicy.org/research/covid-19-unemployment-immigrants-other-us-workers

Carson, D. (2020, April 17). *Coronavirus in Ohio: Farmers concerned about availability of migrant workers.* Fremont News Messenger. https://www.thenews-messenger.com/story/news/local/2020/04/17/coronavirus-farmers-migrant-workers-availability-concerns/2978667001/

Cascella, M., Rajnik, M., Cuomo, A., Dulebohn, S. C., & Di Napoli, R. (2020). *Features, evaluation, and treatment coronavirus (COVID-19).* StatPearls Publishing.

Case Western Reserve University. (2020). *AsiaTown*. Encyclopedia of Cleveland History. https://case.edu/ech/articles/a/asiatown

Centers for Community Health and Development. (2020). *Chapter 2. Other models for promoting community health and development: Section 5: Collective impact.* Community Tool Box, The University of Kansas. https://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/collective-impact/main

Centers for Disease Control and Prevention (CDC). (2013). *Health of Hispanic or Latino population*. https://www.cdc.gov/nchs/fastats/hispanic-health.htm

Centers for Disease Control and Prevention (CDC). (2018). *Current cigarette smoking among adults in the United States*. Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm

Centers for Disease Control and Prevention (CDC). (2019). *Asian Americans, Native Hawaiians, or Pacific Islanders and Tobacco Use*. Office on Smoking and Health, National

Centers for Disease Control and Prevention (CDC). (2020a). *Know hepatitis B*. Division of Viral Hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. https://www.cdc.gov/knowhepatitisb/index.htm

Centers for Disease Control and Prevention (CDC). (2020b, September 16). *Disability and health overview.* https://www.cdc.gov/ncbddd/disabilityandhealth/disability.html

Centers for Disease Control and Prevention (CDC). (2020c, May 18). *Disability and Health Data System (DHDS).* https://dhds.cdc.gov

Centers for Disease Control and Prevention (CDC). (2020d, July 15). *Social distancing: Keep a safe distance to slow the spread.* https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html

Centers for Disease Control and Prevention (CDC). (2020e, August 7). *Considerations for wearing masks: Help slow the spread of COVID-19.* https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html

Centers for Disease Control and Prevention (CDC). (2020f, September 11). *How to protect yourself & others.* https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

Centers for Disease Control and Prevention (CDC). (2020g, September 18). *Overview of testing for SARS-CoV-2 (COVID-19).* https://www.cdc.gov/coronavirus/2019-ncov/hcp/testing-overview.html

Centers for Disease Control and Prevention (CDC). (2020h, May 13). *Symptoms of coronavirus.* https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

Centers for Disease Control and Prevention (CDC). (2020i, August 1). *Interim guidelines for COVID-19 antibody testing.* https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antibody-tests-guidelines.html

Centers for Disease Control and Prevention (CDC). (2020j, April 29). *Case investigation and contact tracing: Part of a multipronged approach to fight the COVID-19 pandemic.* https://www.cdc.gov/coronavirus/2019-ncov/php/principles-contact-tracing.html

Centers for Disease Control and Prevention (CDC). (2020k, August 12). *Isolate if you are sick: Separate yourself from others if you have COVID-19.* https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/isolation.html

Centers for Disease Control and Prevention (CDC). (2020l, September 10). *When to quarantine: Stay home if you might have been exposed to COVID-19.* https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine.html

Chan, J. F.-W., Yuan, S., Kok, K.-H., To, K. K.-W., Chu, H., Yang, J., Xing, F., Liu, J., Yip, C., C.-Y., Poon, R., W.-S., Tsoi, H.-W., Lo, S. K.-F., Chan, K.-H., Poon, V. K.-M., Chan, W.-M., Daniel, J., Cai, J.-P., Cheng, V. C.-C., Chen, H., Hui, C. K.-M., & Yuen, K.-Y. (2020). A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: A study of a family cluster. *The Lancet*, *395*(10223), 514–523. https://doi.org/10.1016/S0140-6736(20)30154-9

Chappell, B. & Plefger, P. (2020, April 20). *73% of inmates at an Ohio prison test positive for Coronavirus.* NPR. https://www.npr.org/sections/coronavirus-live-updates/2020/04/20/838943211/73-of-inmates-at-an-ohio-prison-test-positive-for-coronavirus

Chia, P. Y., Coleman, K. K., Tan, Y. K., Ong, S. W. X., Gum, M., Lau, S. K., Lim, X. F., Lim, A. S., Sutjipto, S., Lee, P. H., Son, T. T., Young, B. E., Milton, D. K., Gray, G. C., Schuster, S., Barkham, T., De, P. P., Vasoo, S., Chan, M., Ang, B.S.P., … Singapore 2019 Novel Coronavirus Outbreak Research Team (2020). Detection of air and surface contamination by SARS-CoV-2 in hospital rooms of infected patients. *Nature Communications*, *11*(1), 2800. https://doi.org/10.1038/s41467-020-16670-2

Chicago Council on Global Affairs, The. (2012). *Ohio: state-by-state immigration trends.* http://logon.thechicagocouncil.org/UserFiles/File/Immigration/Fact-Sheets/ohio.pdf

Cholera, R., Falusi, O. O., & Linton, J. M. (2020). Sheltering in place in a xenophobic climate: COVID-19 and children in immigrant families. *Pediatrics, 146*(1), e20201094. https://doi.org/10.1542/peds.2020-1094

City of Columbus, City Council, The. (2020). *Resolution declaring racism a public health crisis in Columbus: 0095X-2020.* https://www.columbus.gov/racismresolution/

Cloud, D. H., Ahalt, C., Augustine, D., Sears, D., & Williams, B. (2020). Medical isolation and solitary confinement: Balancing health and humanity in US jails and prisons during COVID-19. *Journal of General Internal Medicine, 35*(9), 2738–2742. HYPERLINK «https://doi.org/10.1007/s11606-020-05968-y»https://doi.org/10.1007/s11606-020-05968-y

Cohen, J. H., & Chavez, N. M. (2013). Latino immigrants, discrimination and reception in Columbus, Ohio. *International Migration*, *51*(2), 24–31. https://doi.org/10.1111/imig.12032

Cokley, R. (2020, March 27). *Coronavirus proposals leave the disability community behind.* https://www.americanprogress.org/issues/disability/news/2020/03/27/482378/coronavirus-proposals-leave-disability-community-behind/

Columbus Office of Minority Health, Columbus Public Health. (2017). *Report to the community 2017.* https://www.columbus.gov/publichealth/programs/Minority-Health/Local-Conversations-report-to-the-Community-2017/

Community Refugee & Immigration Services. (2020, October 5). *Refugees in Columbus.* https://www.crisohio.org/refugees-in-columbus/

Cooper, B. (2016). Intersectionality. In L. Disch & M. Hawkesworth (Eds.), *The oxford handbook of feminist theory*. https://doi.org/10.1093/oxfordhb/9780199328581.013.20

Courtenay, K. (2020). Covid-19: Challenges for people with intellectual disability. *BMJ*, *369*, m1609. https://doi.org/10.1136/bmj.m1609

Courtenay, K., & Perera, B. (2020). COVID-19 and people with intellectual disability: Impacts of a pandemic. *Irish Journal of Psychological Medicine*, 1–6. https://doi.org/10.1017/ipm.2020.45

Courtney-Long, E. A., Romano, S. D., Carroll, D. D., & Fox, M. H. (2017). Socioeconomic factors at the intersection of race and ethnicity influencing health risks for people with disabilities. *Journal of Racial and Ethnic Health Disparities*, *4*(2), 213–222. https://doi.org/10.1007/s40615-016-0220-5

COVID-19 Minority Health Strike Force. (2020a). *COVID-19 Minority Health Strike Force: Interim report*. https://coronavirus.ohio.gov/static/MHSF/COVID-19-SFR.pdf

COVID-19 Ohio Minority Health Strike Force. (2020b). *COVID-19 Ohio Minority Health Strike Force: Blueprint*. https://coronavirus.ohio.gov/static/MHSF/MHSF-Blueprint.pdf

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, *1989*(1), 139-167. http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8

Crush, J., & Ramchandran, S. (2010) Xenophobia, international migration and development. *Journal of Human Development and Capabilities, 11*(2), 209-228. https://doi.org/10.1080/19452821003677327

Cuypers, M., Schalk, B. W. M., Koks-Leensen, M. C. J., Nägele, M.E., Bakker-van Gijssel, E.J., Naaldenberg, J., & Leusink, G.L. (2020). Mortality of people with intellectual disabilities during the 2017/2018 influenza epidemic in the Netherlands: Potential implications for the COVID-19 pandemic. *Journal of Intellectual Disability Research*, *64*(7): 482-488. https://doi.org/10.1111/jir.12739

Davies, A., Thompson, K-A., Giri, K., Kafatos, G., Walker, J., & Bennett, A. (2013). Testing the efficacy of homemade masks: Would they protect in an influenza pandemic? *Disaster Medicine and Public Health Preparedness*, *7*(4), 413–418. https://doi.org/10.1017/dmp.2013.43

Delgado-Gaitan, C. (1994). Socializing young children in Mexican American families: An intergenerational perspective. In P. M. Greenfield & R. R. Cocking (Eds.), *Cross-cultural roots of minority child development* (p 55-86). Lawrence Erlbaum Associates, Inc.

Derose, K. P., Escarce, J. J., & Lurie, N. (2007). Immigrants and health care: Sources of vulnerability. *Health Affairs,* 26(5), 1258-1268. https://doi.org/10.1377/hlthaff.26.5.1258

Desmond, M., & Kimbro, R. T. (2015). Eviction's fallout: Housing, hardship, and health. *Social Forces, 94*(1), 295-324. https://doi.org/10.1093/sf/sov044

Devakumar, D., Selvarajah, S., Shannon, G., Muraya, K., Lasoye, S., Corona, S., Paradies, Y., Abubakar, I., & Achiume, E. T. (2020). Racism, the public health crisis we can no longer ignore. *The Lancet, 395*(10242), e112–e113. https://doi.org/10.1016/S0140-6736(20)31371-4

Dobbin, F., & Kalev, A. (2018). Why doesn't diversity training work? The challenge for industry and academia. *Anthropology Now, 10*(2), 48-55. https://doi.org/10.1080/19428200.2018.1493182

Dominguez, K., Penman-Aguilar, A., Chang, M-H., Moonesinghe, R., Castellanos, T., Rodriguez-Lainz, A., & Scheiber, R. (2015). Vital signs: Leading causes of death, prevalence of diseases and risk factors, and use of health services among Hispanics in the United States — 2009–2013. *Morbidity and Mortality Weekly Report*, *64(17)*, 469-478.

Douthit, N., Kiv, S., Dwolatzky, T., & Biswas, S. (2015). Exposing some important barriers to health care access in the rural USA. *Public health, 129*(6), 611–620. https://doi.org/10.1016/j.puhe.2015.04.001

Dubey, M. J., Ghosh, R., Chatterjee, S., Biswas, P., Chatterjee, S., & Dubey, S. (2020). COVID-19 and addiction. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, *14*(5), 817–823. https://doi.org/10.1016/j.dsx.2020.06.008

Dumont, D. M., Brockmann, B., Dickman, S., Alexander, N., & Rich, J. D. (2012). Public health and the epidemic of incarceration. *Annual Review of Public Health*, *33*(1), 325–339. https://doi.org/10.1146/annurev-publhealth-031811-124614

Dwyer, R. E. (2013). The care economy? Gender, economic restructuring, and job polarization in the U.S. labor market. *American Sociological Review, 78*(3), 390–416. https://doi.org/10.1177/0003122413487197

Dyer, O. (2020). COVID-19: Black people and other minorities are hardest hit in US. *BMJ, 369*, m1483. https://doi.org/10.1136/bmj.m1483

Efird, J. T., & Bith-Melander, P. (2018). Refugee health: An ongoing commitment and challenge. *International Journal of Environmental Research and Public Health*, *15*(1), 131. https://doi.org/10.3390/ijerph15010131

Eisenberg, D.M., Kessler, R. C., Foster, C., Norlock, F. E., Calkins, D. R., Delbanco, T.L. (1993). Unconventional medicine in the United States. Prevalence, costs, and patterns of use. *New England Journal of Medicine, 328*(4), 246-252. https://doi.org/10.1056/NEJM199301283280406

Ely, D. M., & Driscoll, A. K. (2019). Infant mortality in the United States, 2017: Data from the period linked birth/infant death file. *National Vital Statistics Reports*, 68(10). National Center for Health Statistics, U.S. Department of Health and Human Services. https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_10-508.pdf

Erwin, C., Aultman, J., Harter, T., Illes, J., & Kogan, R. C. J. (2020). Rural and remote communities: Unique ethical Issues in the COVID-19 pandemic. *The American Journal of Bioethics*, *20*(7), 117–120. https://doi.org/10.1080/15265161.2020.1764139

Fallon, K. F., & Price, C. R. (2020). Meeting the needs of low-income housing for senior and disabled populations: An analysis of low-income housing tax credit residents in Ohio. *Housing and Society.* https://doi.org/10.1080/08882746.2020.1783940

Feagin, J., & Bennefield, Z. (2014). Systemic racism and U.S. health care. *Social Science & Medicine, 103*, 7–14. https://doi.org/10.1016/j.socscimed.2013.09.006

Finch, B. K., Hummer, R. A., Kol, B., & Vega, W. A. (2001). The role of discrimination and acculturative stress in the physical health of Mexican-origin adults. *Hispanic Journal of Behavioral Sciences*, *23*(4), 399–429. https://doi.org/10.1177/0739986301234004

Finset, A., Bosworth, H., Butow, P., Gulbrandsen, P., Hulsman, R. L., Pieterse, A. H., Street, R., Tschoetschel, R., & van Weert, J. (2020). Effective health communication - A key factor in fighting the COVID-19 pandemic. *Patient Education and Counseling, 103*(5), 873-876. https://doi.org/10.1016/j.pec.2020.03.027

Flores G. (2005). The impact of medical interpreter services on the quality of health care: A systematic review. *Medical Care Research and Review, 62*(3), 255-99. https://doi.org/10.1177/1077558705275416

Forman-Hoffman, V. L., Ault, K. L., Anderson, W. L., Weiner, J. M., Stevens, A., Campbell, V. A., & Armour, B. S. (2015). Disability status, mortality, and leading causes of death in the United States community population. *Medical Care, 53*(4), 346-354. https://doi.org/10.1097/MLR.0000000000000321

Frankel, T. C. (2020, June 17). The outbreak that didn't happen: Masks credited with preventing coronavirus spread inside Missouri hair salon. *Washington Post*. https://www.washingtonpost.com/business/2020/06/17/masks-salons-missouri/

Freeman, J. D., Kadiyala, S., Bell, J. F., & Martin, D. P. (2008). The causal effect of health insurance on utilization and outcomes in adults: A systematic review of US studies. *Medical Care*, *46*(10), 1023–1032. https://doi.org/10.1097/MLR.0b013e318185c913

Furukawa, N. W., Brooks, J. T., & Sobel, J. (2020). Evidence supporting transmission of Severe Acute Respiratory Syndrome Coronavirus 2 while presymptomatic or asymptomatic. *Emerging Infectious Diseases*, *26*(7). https://doi.org/10.3201/eid2607.201595

Garfield, R., Claxton, G., Damico, A., & Levitt, L. (2020, May 13). *Eligibility for ACA health coverage following job loss*. Kaiser Family Foundation. https://www.kff.org/coronavirus-covid-19/issue-brief/eligibility-for-aca-health-coverage-following-job-loss/

Garfield, R., Rudowitz, R., Orgera, K., & Damico, A. (2019, August 8). *Understanding the intersection of Medicaid and work: What does the data say?* Kaiser Family Foundation. https://www.kff.org/medicaid/issue-brief/understanding-the-intersection-of-medicaid-and-work-what-does-the-data-say

Gee, G. C., & Ford, C. L. (2011). Structural racism and health inequities: Old issues, new directions. *Du Bois Review: Social Science Research on Race, 8*(1), 115–132. https://doi.org/10.1017/S1742058X11000130

Gelatt, J. (2020, March). *Immigrant workers: Vital to the U.S. COVID-19 response, disproportionately vulnerable.* Migration Policy Institute. https://www.migrationpolicy.org/research/immigrant-workers-us-covid-19-response

George, L. K. (2011). Chapter 11—Social factors, depression, and aging. In R. H. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (7th ed., pp. 149–162). Academic Press. https://doi.org/10.1016/B978-0-12-380880-6.00011-3

Ghinai, I., McPherson, T. D., Hunter, J. C., Kirking, H. L., Christiansen, D., Joshi, K., Rubin, R., Morales-Estrada, S., Black, S. R., Pacilli, M., Fricchione, M. J., Chugh, R. K., Walblay, K. A., Ahmed, N. S., Stoecker, W. C., Hasan, N. F., Burdsall, D. P., Reese, H. E., Wallace, M., ... Illinois, C. I. T. (2020). First known person-to-person transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the USA. *The Lancet, 395*(10230), 1137–1144. https://doi.org/10.1016/S0140-6736(20)30607-3

Godoy, M. (2020, May 30). *What do Coronavirus racial disparities look like state by state?* NPR. https://www.npr.org/sections/health-shots/2020/05/30/865413079/what-do-coronavirus-racial-disparities-look-like-state-by-state

Goggin, G., & Ellis, K. (2020). Disability, communication, and life itself in the COVID-19 pandemic. *Health Sociology Review, 29*(2), 168-176. https://doi.org/10.1080/14461242.2020.1784020

Gover, A. R., Harper, S. B. & Langton, L. (2020). Anti-Asian hate crime during the COVID-19 pandemic: Exploring the reproduction of inequality. *American Journal of Criminal Justice, 45*, 647-667. https://doi.org/10.1007/s12103-020-09545-1

Guo, Z.-D., Wang, Z.-Y., Zhang, S.-F., Li, X., Li, L., Li, C., Cui, Y., Fu, R.-B., Dong, Y.-Z., Chi, X.-Y., Zhang, M.-Y., Liu, K., Cao, C., Liu, B., Zhang, K., Gao, Y.-W. Lu, B., & Chen, W. (2020). Aerosol and surface distribution of severe acute respiratory syndrome Coronavirus 2 in hospital wards, Wuhan, China, 2020. *Emerging Infectious Diseases*, *26*(7), 1586–1591. https://doi.org/10.3201/eid2607.200885

Hacker, K., Anies, M., Folb, B., & Zallman, L. (2015). Barriers to health care for undocumented immigrants: A literature review. *Risk Management Healthcare Policy*, *2015* (8), 175-183. https://doi.org/10.2147/RMHP.S70173

Hacker, K., Chu, J., Leung, C., Marra, R., Pirie, A., Brahimi, M., English, M., Beckmann, J., Acevdeo-Garcia, D., & Marlin, R. P. (2011). The impact of immigration and customs enforcement on immigrant health: Perceptions of immigrants in Everett, Massachusetts, USA. *Social Science & Medicine*, *73*(4), 586-594. https://doi.org/10.1016/j.socscimed.2011.06.007

Hakim, D. (2020, April 8). 'It's hit our front door': Homes for the disabled see a surge of COVID-19. *The New York Times.* https://www.nytimes.com/2020/04/08/nyregion/coronavirus-disabilities-group-homes.html

Hamner, L., Dubbel, P., Capron, I., Ross, A., Jordan, A., Lee, J., Lynn, J., Ball, A., Narwal, S., Russell, S., Patrick, D., & Leibrand, H. (2020). High SARS-CoV-2 attack rate following exposure at a choir practice—Skagit County, Washington, March 2020. *Morbidity and Mortality Weekly Report*, *69*(19), 606–610. https://doi.org/10.15585/mmwr.mm6919e6

Han, H.-R., Song, Y., Kim, M., Hedlin, H. K., Kim, K., Lee, H. B., & Roter, D. (2017). Breast and cervical cancer screening literacy among Korean American women: A community health worker-led intervention. *American Journal of Public Health*, *107*(1), 159–165. http://dx.doi.org/10.2105/AJPH.2016.303522

Hannon, P. A., Harris, J. R., Sopher, C. J., Kuniyuki, A., Ghosh, D. L., Henderson, S., Martin, D. P., Weaver, M. R., Williams, B., Albano, D. L., Meischke, H., Diehr, P., Lichiello, P., Hammerback, K. E., Parks, M. R., & Forehand, M. (2012). Improving low-wage, midsized employers' health promotion practices: A randomized controlled trial. *American Journal of Preventive Medicine*, *43*(2), 125–133. https://doi.org/10.1016/j.amepre.2012.04.014

Hardison-Moody, A., & Yao, J. (2019). Faithful families, thriving communities: Bridging faith and health through a state-level partnership. *American Journal of Public Health*, *109*(3), 363–368. https://doi.org/10.2105/AJPH.2018.304869

Harvard T.H. Chan School of Public Health. (2019, May 1). *Life in Rural America: Part II*. NPR/Robert Wood Johnson Foundation/Harvard School of Public Health. https://www.rwjf.org/en/library/research/2019/05/life-in-rural-america--part-ii.html

Hausmann, L. R. M., Jeong K., Bost J. E., & Ibrahim, S. A. (2008). Perceived discrimination in health care and health status in a racially diverse sample. *Medical Care*, *46*(9), 905–914. https://doi.org/10.1097/MLR.0b013e3181792562

Hayes, A. (2020, March 23). *Economic justice*. Investopedia. https://www.investopedia.com/terms/e/economic-justice.asp

Health Resources & Services Administration (HRSA). (2020, September 25). *Health center COVID-19 survey*. HRSA Health Center Program. https://bphc.hrsa.gov/emergency-response/coronavirus-health-center-data

Healy, M. (1994, January 6). Charity patients irradiated to gauge effect on soldiers: Radiation: Experiments on 82 people with cancer lasted until 1972. Sixty days after exposure, 25 had died. *Los Angeles Times*. https://www.latimes.com/archives/la-xpm-1994-01-06-mn-9015-story.html

Heron, M. (2019). Deaths: Leading causes 2017. *National Vital Statistics Reports*, *68*(6), 1-77. https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_06-508.pdf

Higgs, Robert. (2020, June 3). Cleveland City Council declares racism a public health crisis, launching community-wide effort to tackle inequities. *Cleveland*. https://www.cleveland.com/cityhall/2020/06/cleveland-city-council-declares-racism-a-public-health-crisis-launching-community-wide-effort-to-tackle-inequities.html

Hinton, E. (2016). *From the war on poverty to the war on crime: The making of mass incarceration in America*. Harvard University Press.

Hobbs, F., & Stoops, N. (2002, November). *Demographic trends in the 20th Century: Census 2000 special reports.* (pp. 75-77). U.S. Census Bureau, U.S. Department of Commerce. Washington, DC: U.S. Government Printing Office. https://www.census.gov/prod/2002pubs/censr-4.pdf

Hodges, M. J. (2019). Intersections on the class escalator: Gender, race, and occupational segregation in paid care work. *Sociological Forum, 35*(1), 24–49. https://doi.org/10.1111/socf.12566

Holt, C. L., Clark, E. M., Debnam, K. J., and Roth, D. L. (2014). Religion and health in African Americans: The role of religious coping. *American Journal of Health Behavior, 38*(2):190–99. https://doi.org/10.5993/AJHB.38.2.4

Howard, J., Huang, A., L., Z., Tufekci, Z., Zdimal, V., van der Westhuizen, H. -M., von Delft, A., Price, A., Fridman, L., Tang, L. -H., Tang, V., Watson, G. L., Bax, C. E., Shaikh, R., Questier, F., Hernandez, D., Chu, L. F., Ramirez, C. M., & Rimoin, A. W. (2020). Face masks against COVID-19: An evidence review. *Preprints*. https://doi.org/10.20944/preprints202004.0203.v1

Hsiao, A.-F., Wong, M. D., Goldstein, M. S., Becerra, L. S., Cheng, E. M., & Wenger, N. S. (2006). Complementary and alternative medicine use among Asian-American subgroups: Prevalence, predictors, and lack of relationship to acculturation and access to conventional health care. *The Journal of Alternative and Complementary Medicine*, *12*(10), 1003-1010. https://doi.org/10.1089/acm.2006.12.1003

Huang, J., & Liu, R. (2020). Xenophobia in America in the age of Coronavirus and beyond. *Journal of Vascular and Interventional Radiology, 31*(7), 1187–1188. https://doi.org/10.1016/j.jvir.2020.04.020

International Organization for Migration. (2018). World migration report 2018. In *IOM world migration report series.* Geneva: International Organization for Migration: United Nations; 1-347.

Isasi, C. R., Ayala, G. X., Sotres-Alvarez, D., Madanat, H., Penedo, F., Loria, C. M., Elder, J. P., Daviglus, M. L., Barnhart, J., Siega-Riz, A. M., Van Horn, L. & Schneiderman, N. (2015). Is acculturation related to obesity in Hispanic/Latino adults? Results from the Hispanic Community Health Study/Study of Latinos. *Journal of Obesity*, *2015*, 1-8. https://doi.org/10.1155/2015/186276

IZA World of Labor: Evidence–based Policy Making. (2020). *What is economic inequality?* https://wol.iza.org/key-topics/economic-inequality

Jacquez, F., Vaughn, L., Zhen-Duan, J., & Graham, C. (2016). Health care use and barriers to care among Latino immigrants in a new migration area. *Journal of Health Care for the Poor and Underserved*, *27*(4), 1761-1778. https://doi.org/10.1353/hpu.2016.0161

Jagers, R.J., & Mock, L.O. (1995). The communalism scale and collectivistic-individualistic tendencies: Some preliminary findings. *Journal of Black Psychology, 21*(2), 153-167. https://doi.org/10.1177/00957984950212004

Jaiswal J., & Halkitis, P. N. (2019). Towards a more inclusive and dynamic understanding of medical mistrust informed by science. *Behavioral Medicine*, *45*(2), 79-85. https://doi.org/10.1080/08964289.2019.1619511

Jang, S., Han, S. H., & Rhee, J.-Y. (2020). Cluster of coronavirus disease associated with fitness dance classes, South Korea. *Emerging Infectious Diseases*, *26*(8), 1917-1920. https://doi.org/10.3201/eid2608.200633

Jasso, G., Massie, D.S., Rosenzweig, M.R., & Smith, J.P. (2004). "Immigrant Health-Selectivity and Acculturation," in N. Anderson, R. Bulatao, B. Cohen, & National Research Council (U.S.) (eds.), *Critical Perspectives on Racial and Ethnic Differences in Health in Late Life* (pp.227-266). National Academies Press.

Ji, Y., Ma, Z., Peppelenbosch, M. P., & Pan, Q. (2020). Potential association between COVID-19 mortality and health-care resource availability. *The Lancet Global Health, 8*(4), e480. https://doi.org/10.1016/S2214-109X(20)30068-1

Johnson, K. A. (2018). *Medical stigmata: Race, medicine, and the pursuit of theological liberation.* Springer.

Johnson-Webb, K. (2003). *Recruiting Hispanic labor: Immigrants in non-traditional areas*. LFB Scholarly Publishing.

Jones, C. A., Mawani, S., King, K. M., Allu, S. O., Smith, M., Mohan, S., & Campbell, N. R. (2011). Tackling health literacy: Adaptation of public hypertension educational materials for an Indo-Asian population in Canada. *BMC Public Health, 11*, 24. https://doi.org/10.1186/1471-2458-11-24

Jongen, C., McCalman, J., & Bainbridge, R. (2018). Health workforce cultural competency interventions: A systematic scoping review. *BMC Health Services Research*, *18*, 232. https://doi.org/10.1186/s12913-018-3001-5

Jordan, M., & Oppel, A. R., Jr. (2020). For Latinos and COVID-19, doctors are seeing an 'alarming' disparity. *New York Times*. https://www.nytimes.com/2020/05/07/us/coronavirus-latinos-disparity.html

Jumreornvong, O., Tabacof, L., Cortes, M., Tosto, J., Kellner, C. P., Herrera, J. E., & Putrino, D. (2020). Ensuring equity for people living with disabilities in the age of COVID-19. *Disability & Society*. https://doi.org/10.1080/09687599.2020.1809350

Kandel, W., & Parrado, E. A. (2005). Restructuring of the US meat processing industry and new Hispanic migrant destinations. *Population and Development Review, 31*(3), 447–471. https://doi.org/10.1111/j.1728-4457.2005.00079.x

Kania, J., & Kramer, M. (2011). *Essentials of social innovation: Collective impact*. Stanford Social Innovation Review. https://ssir.org/articles/entry/collective_impact

Karliner, L. S., Jacobs, E. A., Chen, A. H., & Mutha, S. (2007). Do professional interpreters improve clinical care for patients with limited English proficiency? A systematic review of the literature. *Health Services Research, 42*(2), 727-754. https://doi.org/10.1111/j.1475-6773.2006.00629.x

Katz, M. L., Ferketich, A. K., Paskett, E. D., & Bloomfield, C. D. (2013). Health literacy among the Amish: Measuring a complex concept among a unique population. *Journal of Community Health*, *38*(4), 753–758. https://doi.org/10.1007/s10900-013-9675-z

Kawamura, K. Y. (2012). Body Image among Asian Americans. In Cash, (Eds.), *Encyclopedia of Body Image and Human Appearance* (pp. 95-102). Elsevier, Inc. https://doi.org/10.1016/B978-0-12-384925-0.00039-0

Keeling, M. J., Hollingsworth, T. D., & Read, J. M. (2020). Efficacy of contact tracing for the containment of the 2019 novel coronavirus (COVID-19). *Journal of Epidemiology and Community Health, 74*(10), 861-866. https://doi.org/10.1136/jech-2020-214051

Kegler, M. C., Wolff, T., Christens, B. D., Butterfoss, F. D., Francisco, V. T., & Orleans, T. (2019). Strengthening our collaborative approaches for advancing equity and justice. *Health Education and Behavior*, *46*(1), 5s-8s. https://doi.org/10.1177/1090198119871887

Kelleher, K., Reece, J., & Sandel, M. (2018). The healthy neighborhood, healthy families initiative. *Pediatrics, 142*(3), e20180261. https://doi.org/10.1542/peds.2018-0261

Kendi, I. X. (2019). *How to be an antiracist*. Random House.

Kendi, I. X. (2019, February 12). *The anti-racist reading list: 38 books for those open to changing themselves, and their world.* The Atlantic. https://www.theatlantic.com/ideas/archive/2019/02/antiracist-syllabus-governor-ralph-northam/582580/

Kim, N. Y. (2020, July 23). *Asian Americans suffer from Trump's racist attacks too: The long history of America's hostility towards immigrants from China, Japan, and Korea*. Public Seminar. https://publicseminar.org/essays/asian-americans-suffer-from-trumps-racist-attacks-too/

Kimball, A., Hatfield, K. M., Arons, M., James, A., Taylor, J., Spicer, K., Bardossy, A.C., Oakley, L. P., Tanwar, S., Chisty, Z., Bell, J. M., Methner, M., Harney, J., Jacobs, J. R., Carlson, C. M., McLaughlin, H .P., Stone, N., Clark, S., Brostrom-Smith, C., Page, L. C., …CDC COVID-19 Investigation Team. (2020). Asymptomatic and presymptomatic SARS-CoV-2 infections in residents of a long-term care skilled nursing facility—King County, Washington, March 2020. *Morbidity and Mortality Weekly Report*, *69*(13), 377–381. https://doi.org/10.15585/mmwr.mm6913e1

Kimura, A. C., Christine, N. N., Jeffrey, H. I., Hurwitz, E. L., & Vugia, D. J. (2007). The effectiveness of vaccine day and educational interventions on influenza vaccine coverage among health care workers at long-term care facilities. *American Journal of Public Health, 97*(4), 684–690. https://doi.org/10.2105/AJPH.2005.082073

Kipgen, M. (2020). COVID-19 pandemic and racism in the United States and India. *Economic & Political Weekly, 55*(23), 21-26.

Kirzinger, A., Kearney, A., Hamel, L., & Brodie, M. (2020, April 2). *KFF Health Tracking Poll – Early April 2020: The impact of Coronavirus on life in America*. Kaiser Family Foundation. https://www.kff.org/coronavirus-covid-19/report/kff-health-tracking-poll-early-april-2020/

Klingle, M. W. (2020). *A history bursting with telling: Asian Americans in Washington State.* Center for the Study of the Pacific Northwest. University of Washington Department of History. http://www.washington.edu/uwired/outreach/cspn/Website/Classroom%20Materials/Curriculum%20Packets/Asian%20Americans/Asian%20American%20Main.html

Konda, A., Prakash, A., Moss, G. A., Schmoldt, M., Grant, G. D., & Guha, S. (2020). Aerosol filtration efficiency of common fabrics used in respiratory cloth masks. *ACS Nano*, *14*(5), 6339–6347. https://doi.org/10.1021/acsnano.0c03252

Kouyoumdjian, H., Zamboanga, B. L., & Hansen, D. J. (2006). Barriers to community mental health services for Latinos: Treatment considerations. *Clinical Psychology: Science and Practice*, *10*(4), 394–422. https://doi.org/10.1093/clipsy.bpg041

Kramer, G. (2020, May 12). *Ohio's Asian-Americans are not immune to coronavirus-fueled racism*. IdeaStream. https://www.ideastream.org/news/ohios-asian-americans-are-not-immune-to-coronavirus-fueled-racism

Kraus, L., Lauer, E., Coleman, R., & Houtenville, A. (2018). *2017 Disability statistics annual report*. Rehabilitation Research and Training Center on Disability Statistics and Demographics. https://disabilitycompendium.org/sites/default/files/user-uploads/2017_AnnualReport_2017_FINAL.pdf

Kretzmann, J. P., McKnight, J. L., Dobrowolski, S. & Puntenney, D. (2005). *Discovering community power: A guide to mobilizing local assets and your organization's capacity*. Asset-Based Community Development Institute, School of Education and Social Policy, Northwestern University. https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/tool-ABCD-capacity%20bldg.pdf

Krieger, N. (2014). Discrimination and health inequities. *International Journal of Health Services, 44*(4), 643–710. https://doi.org/10.2190/HS.44.4.b

Krogstad, J. M., Gonzalez-Barrera, A., Noe-Bustamante, L. (2020, April 3). *U.S. Latinos among hardest hit by pay cuts, job losses due to coronavirus*. Pew Research Center. https://www.pewresearch.org/fact-tank/2020/04/03/u-s-latinos-among-hardest-hit-by-pay-cuts-job-losses-due-to-coronavirus/

Kucharski, A. J., Klepac, P., Conlan, A. J. K., Kissler, S. M., Tang, M. L., Fry, H., Gog, J. L., Edmunds, W. J., & CMMID COVID-19 Working Group. (2020). Effectiveness of isolation, testing, contact tracing, and physical distancing on reducing transmission of SARS-CoV-2 in different settings: A mathematical modeling study. *The Lancet Infectious Diseases, 20*(10), 1151-1160. https://doi.org/10.1016/S1473-3099(20)30457-6

Kumar, S., Grefenstette, J. J., Galloway, D., Albert, S. M., & Burke, D. S. (2013). Policies to reduce influenza in the workplace: Impact assessments using an agent-based model. *American Journal of Public Health, 103*(8), 1406–1411. https://doi.org/10.2105/AJPH.2013.301269

Kumar, S., Quinn, S. C., Kim, K. H., Daniel, L. H., & Freimuth, V. S. (2011). The impact of workplace policies and other social factors on self-reported influenza-like illness incidence during the 2009 H1N1 Pandemic. *American Journal of Public Health, 102*(1), 134–140. https://doi.org/10.2105/AJPH.2011.300307

Kuper, H., Banks, L. M., Bright, T., Davey, C., & Shakespeare, T. (2020). Disability-inclusive COVID-19 response: What it is, why it is important and what we can learn from the United Kingdom's response. *Welcome Open Research*, *5,* 79. https://doi.org/10.12688/wellcomeopenres.15833.1

Kushel, M. B., Gupta, R., Gee, L., & Haas, J. S. (2006). Housing instability and food insecurity as barriers to health care among low-income Americans. *Journal of General Internal Medicine, 21*(1), 71–77. https://doi.org/10.1111/j.1525-1497.2005.00278.x

Larrick, D. (2019). The Ohio poverty report. Ohio Development Services Agency Office of Research.   https://www.development.ohio.gov/files/research/P7005.pdf

Larry A. Green Center, The. (2020). *Quick COVID-19 survey*. https://www.green-center.org/covid-survey

Leffler, C. T., Ing, E. B., Lykins, J. D., Hogan, M. C., McKeown, C. A., & Grzybowski, A. (2020). Association of country-wide coronavirus mortality with demographics, testing, lockdowns, and public wearing of masks. *MedRxiv Preprint*. https://doi.org/10.1101/2020.05.22.20109231

Leung, N. H. L., Chu, D. K. W., Shiu, E. Y. C., Chan, K.-H., McDevitt, J. J., Hau, B. J. P., Yen, H.-L., Li, Y., Ip, D. K. M., Peiris, J. S. M., Seto, W.-H., Leung, G. M., Milton, D. K., & Cowling, B. J. (2020). Respiratory virus shedding in exhaled breath and efficacy of face masks. *Nature Medicine*, *26*(5), 676–680. https://doi.org/10.1038/s41591-020-0843-2

Levin, J., Chatters, L. M., & Taylor., R. J. (2005). Religion, health and medicine in African Americans: Implications for physicians. *Journal of the National Medical Association*, *97*(2), 237–249.

Lew, R. & Tanjasiri, S. P. (2003). Slowing the epidemic of tobacco use among Asian Americans and Paci c Islanders. *American Journal of Public Health*, *93*(5): 764-768. https://doi.org/10.2105/ajph.93.5.764

Li, Y., & Galea, S. (2020). Racism and the COVID-19 Epidemic: Recommendations for health care workers. *American Journal of Public Health*, *110*(7), 956-957. https://doi.org/10.2105/AJPH.2020.305698

Limited English Proficiency. (2015). *2015 Ohio mapping LEP populations in your community-number by county*. U.S. Department of Justice. https://www.lep.gov/node/2556

Linaker, C., & Smedley, J. (2002). Respiratory illness in agricultural workers. *Occupational Medicine, 52*(8), 451–459. https://doi.org/10.1093/occmed/52.8.451

Liu, J., Liao, X., Qian, S., Yuan, J., Wang, F., Liu, Y., Wang, Z., Wang, F.-S., Liu, L., & Zhang, Z. (2020). Community transmission of Severe Acute Respiratory Syndrome Coronavirus 2, Shenzhen, China, 2020. *Emerging Infectious Diseases*, *26*(6), 1320-1323. https://dx.doi.org/10.3201/eid2606.200239

Lofquist, D. (2013, August 10-13). *Multigenerational households* [Roundtable discussion, Working Paper No. 2013-20]. 2013 Annual meeting of the American Sociological Association, New York City, U.S.A.. https://www.census.gov/content/dam/Census/library/working-papers/2013/acs/lofquist-01.pdf

Lopez, M. H., Rainie, L., & Budiman, A. (2020). *Financial and health impacts of COVID-19 vary widely by race and ethnicity*. Pew Research Center. https://www.pewresearch.org/fact-tank/2020/05/05/financial-and-health-impacts-of-covid-19-vary-widely-by-race-and-ethnicity/

Lopez, W.D., Kruger, D.J., Delva, J., Llanes, M., Ledon, C., Waller, A., Harner, M., Martinez, R., Sanders, L., Harner, M., & Israel, B. (2016). Health implications of an immigration raid: Findings from a Latino community in the Midwestern United States. *Journal of Immigrant and Minority Health*, *19*, 702-708. https://doi.org/10.1007/s10903-016-0390-6

Lowery, W. (2016). *They can't kill us all: Ferguson, Baltimore, and a new era in America's racial justice movement*. Little, Brown, and Company.

Lukwago, S.N., Kreuter, M.W., Bucholtz, D.C., Holt, C.L., & Clark, E.M. (2001). Development and validation of brief scales to measure collectivism, religiosity, racial pride, and time orientation in urban African American women. *Family & Community Health*, *24*(3), 63-71. https://dx.doi.org/10.1097/00003727-200110000-00008

Lyu, W., & Wehby, G. L. (2020). Community use of face masks and COVID-19: Evidence from a natural experiment of state mandates in the US. *Health Affairs, 39(*8), 1419-1425. https://doi.org/10.1377/hlthaff.2020.00818

Ma, G. X., Gao, W., Tan, Y., Chae, W. G., & Rhee, J. (2012). A community-based participatory approach to a hepatitis B intervention for Korean Americans. *Progress in Community Health Partnerships: Research, Education, and Action*, *6*(1), 7–16. https://doi.org/10.1353/cpr.2012.0002

Ma, Q.-X., Shan, H., Zhang, H.-L., Li, G. -M., Yang, R. -M., & Chen, J. -M. (2020). Potential utilities of mask wearing and instant hand hygiene for fighting SARS CoV 2. *Journal of Medical Virology, 92*(9), 1567-1571. https://doi.org/10.1002/jmv.25805

Markides, K. Y. & Rote, S. (2015). Immigrant health paradox. In *Emerging Trends in the Social and Behavioral Sciences* (eds R.A. Scott and S.M. Kosslyn). https://doi.org/10.1002/9781118900772.etrds0174

Marshall, J. L., Thomas, L., Lane, N. M., Arcury, T. A., Randolph, R., Silberman, P., Holding, W., Villamil, L., Thomas, S., Lane, M., Latus, J., Rodgers, J., & Ivey, K. (2017, August). *Creating a culture of health in Appalachia: Disparities and Bright Spots.* Appalachian Regional Commission. https://www.arc.gov/wp-content/uploads/2020/06/Health_Disparities_in_Appalachia_August_2017.pdf

Martin, B. L. (1991) From Negro to Black to African American: The power of names and naming. *Political Science Quarterly, 106*(1), 83-107. doi: 10.2307/2152175

Masci, D., Mohamed, B., and Smith, G. A. (2018). *Black Americans more likely to be Christian, Protestant than US adults overall.* Pew Research Center. https://www.pewresearch.org/fact-tank/2018/04/23/black-americans-are-more-likely-than-overall-public-to-be-christian-protestant/

McGuire, D. O., Tian, L. H., Yeargin-Allsopp, M., Dowling, N. F., & Christensen, D. L. (2019). Prevalence of cerebral palsy, intellectual disability, hearing loss, and blindness, National Health Interview Survey, 2009-2016. *Disability Health Journal, 12*(3):443-451. https://doi.org/10.1016/j.dhjo.2019.01.005

McLellan, R. K. (2017). Work, health, and worker well-being: Roles and opportunities for employers. *Health Affairs, 36*(2), 206–213. https://doi.org/10.1377/hlthaff.2016.1150

Michie S., Atkins L., & West R. (2014). *The behavior change wheel: a guide to designing interventions.* Silverback Publishing.

Michie S., van Stralen M. M., & West R. (2011). The behavior change wheel: A new method

for characterizing and designing behavior change interventions. *Implementation Science, 6*(42). https://doi.org/10.1186/1748-5908-6-42

Michie, S., West, R., Amlot, R., & Rubin, J. (2020, March 11). *Slowing down the COVID-19 outbreak: Changing behavior by understanding it.* The BMJ Opinion. https://blogs.bmj.com/bmj/2020/03/11/slowing-down-the-covid-19-outbreak-changing-behaviour-by-understanding-it/

Middleton, S. (2005). *The Black Laws: Race and the legal process in early Ohio.* Ohio University Press.

Migration Policy Institute. (2018). *State immigration data profiles: Ohio, demographics and social.* https://www.migrationpolicy.org/data/state-profiles/state/demographics/OH

Migration Policy Institute. (2020, May 7). *As millions are pushed from jobs amid pandemic, the loss of employer health coverage and limited access to public coverage for many immigrants hold major implications for them – and U.S. overall.* https://www.migrationpolicy.org/news/millions-noncitizens-limited-access-public-health-coverage

Misra, R., Jiobu, K., Zhang, J., Liu, Q., Li, F., Kirkpatrick, R., & Ho, J. (2013). Racial disparities in hepatitis B infection in Ohio: Screening and immunization are critical for early clinical management. *Journal of Investigative Medicine, 61*(7), 1121–1128. https://doi.org/10.2310/JIM.0b013e3182a70f10

Miyaki, K., Sakurazawa, H., Mikurube, H., Nishizaka, M., Ando, H., Song, Y., & Shimbo, T. (2011). An effective quarantine measure reduced the total incidence of Influenza A H1N1 in the workplace: Another way to control the H1N1 Flu Pandemic. *Journal of Occupational Health 53*(4), 287–292. https://doi.org/10.1539/joh.10-0024-FS

Montez, J. K., Zajacova, A., & Hayward, M. D. (2017). Disparities in disability by educational attainment across US states. *American Journal of Public Health, 107*(7), 1101-1108. https://doi.org/10.2105/AJPH.2017.303768

Mora, G. C. (2014). *Making Hispanics: How activists, bureaucrats, and media constructed a new American.* The University of Chicago Press.

Moran, M.B., Frank, L. B., Chatterjee, J. S., Murphy, S. T., & Baezconde-Garbanati, L. (2016). A pilot test of the acceptability and efficacy of narrative and non-narrative health education materials in a low health literacy population. *Journal of Communication in Healthcare, 9*(1), 40-48.

Mulangu, F. & Clark, J. (2012). Identifying and measuring food deserts in rural Ohio. *Journal of Extension, 50*(3), v50-3a6.

Mykyta, L. (2015). *Housing crisis and family well-being: Examining the effects of foreclosure on families.* U.S. Census Bureau, SEHSD Working Paper #2015-07. https://www.census.gov/content/dam/Census/library/working-papers/2015/demo/SEHSD-WP2015-07.pdf

Myers, C. A., Slack, T., Martin, C. K., Broyles, S. T., & Heymsfield, S. B. (2016). Change in

obesity prevalence across the United States is influenced by recreational and healthcare contexts, food environments, and Hispanic populations. *PLOS One, 11*(2), e0148394. https://doi.org/10.1371/journal.pone.0148394

National Center for Education Statistics. (2020). *Teacher characteristics and trends.* https://nces.ed.gov/fastfacts/display.asp?id=28

National Commission on Asian American and Pacific Islander Research in Education. (2011). *The relevance of Asian Americans & Pacific Islanders in the college completion agenda*. http://care.gseis.ucla.edu/wp-content/uploads/2015/08/2011_CARE_Report.pdf

Governor's Asian American Pacific Islander Advisory Council. (2010, December 28). *A report on the status of Ohio's Asian American Pacific Islander community*. Office of the Governor, State of Ohio. http://www.asiaohio.org/wp-content/uploads/2011/04/AAPI_Report_Final.pdf

National Diabetes Education Program. (2006, June). *Silent trauma: Diabetes, health status, and the refugee: Southeast Asians in the United States*. http://www.aapcho.org/wp/wp-content/uploads/2006/06/SilentTrauma.pdf

National Immigrant Forum. (2019, July 12). *Fact sheet: Immigrants in Ohio.* https://immigrationforum.org/article/fact-sheet-immigrants-in-ohio/

Negrini. S., Grabljevec, K., Boldrini, P., Kiekens, C., Moslavac, S., Zampolini, M., & Christodoulou, N. (2020). Up to 2.2 million people experiencing disability suffer collateral damage each day of COVID-19 lockdown in Europe. *European Journal of Physical and Rehabilitation Medicine, 56*(3), 361-365. https://doi.org/10.23736/S1973-9087.20.06361-3

New African Immigrants Commission. (2018). *New African immigrants commission inaugural report.* https://naic.ohio.gov/Portals/0/NAIC-inaugural-report-2018.pdf

New American Economy. (2016, August). *The contributions of new Americans in Ohio.* http://research.newamericaneconomy.org/wp-content/uploads/2017/06/nae-oh-report.pdf

Nishi, K. (2012). *Mental health among Asian-Americans*. American Psychological Association. https://www.apa.org/pi/oema/resources/ethnicity-health/asian-american/article-mental-health

Nix, E. (2019, July 29). *Tuskegee experiment: The infamous syphilis study.* History. https://www.history.com/news/the-infamous-40-year-tuskegee-study

Noel, T. K. (2020). Conflating culture with COVID-19: Xenophobic repercussions of a global pandemic. *Social Science & Humanities Open, 2*(1), 100044. https://doi.org/10.1016/j.ssaho.2020.100044

Office of Behavioral and Social Science Research, National Institute of Health. (2020). *Social and Behavioral Theories*. http://www.esourceresearch.org/Default.aspx?TabId=736

Office of Housing Policy. (2019). *Ohio housing needs assessment technical supplement to the fiscal year 2019 annual plan*. Ohio Housing Finance Agency. https://ohiohome.org/news/documents/2019-HousingNeedsAssessment.pdf

Office of Minority Health. (2019a, August 22). *Profile: Asian Americans*. U.S. Department

of Health and Human Services. https://www.minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=63

Office of Minority Health. (2019b, September 25). *Mental and behavioral health - Asian Americans*. U.S. Department of Health and Human Services. https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=54

Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services (2011, October 31). *U.S. Department of Health and Human Services implementation guidance on data collection standards for race, ethnicity, sex, primary language, and disability status*. https://aspe.hhs.gov/basic-report/hhs-implementation-guidance-data-collection-standards-race-ethnicity-sex-primary-language-and-disability-status

Ohio Asian American Health Coalition. (2016). *AAPIs in Ohio*. http://www.oahcoalition.org/aapis-in-ohio/

Ohio Department of Health. (2016). Ohio 2016 *State Health Assessment*. https://odh.ohio.gov/static/SHA/2016/Ohio-2016-State-Health-Assessment.pdf

Ohio Department of Health. (2018a., December 6) *2017 Ohio infant mortality report: Ohio infant deaths in 2017 second-lowest on record while racial disparities in birth outcomes continued* [Press Release]. https://odh.ohio.gov/wps/portal/gov/odh/media-center/odh-news-releases/2017-ohio-infant-mortality-report

Ohio Department of Health. (2018b., November 28). *Chronic diseases & conditions.* https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/chronic-disease/chronic-disease-conditions

Ohio Department of Health (2018c). 2018 Ohio drug overdose data: General findings. https://odh.ohio.gov/wps/wcm/connect/gov/d9ee6d3b-bf62-4b4f-8978-d7cfcd11348f/2018_OhioDrugOverdoseReport.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-d9ee6d3b-bf62-4b4f-8978-d7cfcd11348f-mXhFqNO

Ohio Department of Health. (2019) *2019 online state health assessment*. https://odh.ohio.gov/wps/portal/gov/odh/explore-data-and-stats/interactive-applications/2019-Online-State-Health-Assessment

Ohio Department of Health. (2020a, August 13). *More than a mask.* https://coronavirus.ohio.gov/wps/portal/gov/covid-19/families-and-individuals/More-than-a-mask/

Ohio Department of Health. (2020b). *COVID-19 dashboard.* https://coronavirus.ohio.gov/wps/portal/gov/covid-19/dashboards/overview

Ohio Department of Job and Family Services (ODJFS). (2018, September). *Refugee services fact sheet.* https://jfs.ohio.gov/factsheets/RefugeeResettlement.stm

Ohio Department of Job and Family Services (ODJFS). (2020). *May 2020 ranking of Ohio county unemployment rates.* Office of Workforce Development and Bureau of Labor Market Information. https://ohiolmi.com/Home/Ranking?page85850=1&size85850=48

Ohio Development Services Agency. (2019a). *Ohio African Americans*. https://development.ohio.gov/files/research/P7003.pdf

Ohio Development Services Agency. (2019b, September). O*hio Asian Americans.* https://development.ohio.gov/files/research/P7004.pdf

Ohio Development Services Agency. (2019c). *New Americans report.* https://development.ohio.gov/newamericans/report.html

Ohio History Connection. (2020a). *African Americans*. Ohio History Connection. https://ohiohistorycentral.org/index.php?title=African_Americans&mobileaction=toggle_view_desktop

Ohio History Connection. (2020b). *American Indians.* https://ohiohistorycentral.org/w/American_Indians

Ohio History Connection. (2020c). *Agriculture and farming in Ohio*. Ohio History Connection. https://ohiohistorycentral.org/w/Agriculture_and_Farming_in_Ohio

Ohio Statewide Independent Living Council. (2020). *Disability rights history.* http://www.ohiosilc.org/disability-rights-history/

Ohio Youth Leadership Forum. (2020). *A brief history of the disability movement.* http://ohioylf.com/our-story/brief_history_disability_movement/

Ong, S. W. X., Tan, Y. K., Chia, P. Y., Lee, T. H., Ng, O. T., Wong, M. S. Y., & Marimuthu, K. (2020). Air, surface environmental, and personal protective equipment contamination by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) from a symptomatic patient. *JAMA*, *323*(16), 1610–1612. https://doi.org/10.1001/jama.2020.3227

Onoma, A. K. (2020). Epidemics, xenophobia and narratives of propitiousness. *Medical Anthropology, 39*(5), 382–397. https://doi.org/10.1080/01459740.2020.1753047

Opportunities for Ohioans with Disabilities. (2020, June 5). *50th anniversary of OOD.* https://content.govdelivery.com/accounts/OHOOD/bulletins/28f3f37

Ortiz, B. I., Shields, K. M., Clauson, K. A., & Clay, P. G. (2007). Complementary and alternative medicine use among Hispanics in the United States. *Annals of Pharmacotherapy*, *41*(6), 994-1004. https://doi.org/10.1345/aph.1H600

Pastorino, B., Touret, F., Gilles, M., de Lamballerie, X., & Charrel, R. N. (2020). Prolonged infectivity of SARS-CoV-2 in fomites. *Emerging Infectious Diseases*, *26*(9), 2256-2257. https://doi.org/10.3201/eid2609.201788

PBS. (2001). *Ancestors in the Americas Timeline*. https://www.pbs.org/ancestorsintheamericas/timeline.html

Persaud, N., Steiner, L., Woods, H., Aratangy, T., Wanigaratne, S., Polsky, J., Hwang, S., Chahal, G., & Pinto, A. (2019). Health outcomes related to the provision of free, tangible goods: A systematic review. *PLOS ONE, 14*(3), e0213845. https://doi.org/10.1371/journal.pone.0213845

Peters D. J. (2020). Community susceptibility and resiliency to COVID-19 across the rural-urban continuum in the United States. *The Journal of Rural Health, 36*(3), 446-456. https://doi.org/ 10.1111/jrh.12477

Peterson, J. C., Gonzalez, F. J., & Schneider, S. P. (2017). Effects of disease salience and xenophobia on support for humanitarian aid. *Politics and the Life Sciences, 36*(2), 17–36. https://doi.org/10.1017/pls.2017.24

Pew Research Center. (2014). *Demographic and economic profiles of Hispanics by state and county, 2014.* https://www.pewresearch.org/hispanic/states/state/oh

Pew Research Center. (2016, June 27). *Demographic trends and economic well-being.* https://www.pewsocialtrends.org/2016/06/27/1-demographic-trends-and-economic-well-being/

Ruiz, N. G., Horowitz, J. M., & Tamir, C. (2020, July 1). *Many Black and Asian Americans say they have experienced discrimination amid the COVID-19 outbreak*. Pew Research Center. https://www.pewsocialtrends.org/2020/07/01/many-black-and-asian-americans-say-they-have-experienced-discrimination-amid-the-covid-19-outbreak/

Philbin, M. M., Flake, M., Hatzenbuehler, M. L., & Hirsch, J. S. (2018). State-level immigration and immigrant-focused policies as drivers of Latino health disparities in the United States. *Social Science & Medicine, 199*, 29-38. https://doi.org/10.1016/j.socscimed.2017.04.007

Pineda, V. S., & Corburn, J. (2020). Disability, urban health equity, and the coronavirus pandemic: Promoting cities for all. *Journal of Urban Health, 97*(3), 336-341. https://doi.org/10.1007/s11524-020-00437-7

Pollard, K. and Jacobsen, L.A. (2020, June). *The Appalachian region: a data overview from the 2014-2018 American community survey chartbook.* Population Reference Bureau and Appalachian Regional Commission.

Prost, S. G., Novisky, M. A., Rorvig, L., Zaller, N., & Williams, B. (2020). Prisons and COVID-19: A desperate call for gerontological expertise in correctional health care. *The Gerontologist*. https://doi.org/10.1093/geront/gnaa088

Pung, R., Chiew, C. J., Young, B. E., Chin, S., Chen, M. I.-C., Clapham, H. E., Cook, A. R., Maurer-Stroh, S., Toh, M. P. H. S., Poh, C., Low, M., Lum, J., Koh, V. T. J., Mak, T. M., Cui, L., Lin, R. V. T. P., Heng, D., Leo, Y.-S., Lye, D. C., … & the Singapore 2019 Novel Coronavirus Outbreak Research Team. (2020). Investigation of three clusters of COVID-19 in Singapore: Implications for surveillance and response measures. *The Lancet, 395*(10229), 1039–1046. https://doi.org/10.1016/S0140-6736(20)30528-6

Qualls, N., Levitt, A., Kanade, N., Wright-Jegede, N., Dopson, S., Biggerstaff, M., Reed, C., & Uzicanin, A. (2017). Community mitigation guidelines to prevent pandemic Influenza—United States, 2017. *MMWR: Morbidity and Mortality Weekly Report, 66*(1), 1–34. https://doi.org/10.15585/mmwr.rr6601a1

Rae, M., Cox, C., & Claxton, G. (2020, March 3). *Coverage and utilization of telemedicine services by enrollees in large employer plans*. Peterson-KFF Health System Tracker. https://www.healthsystemtracker.org/brief/coverage-and-utilization-of-telemedicine-services-by-enrollees-in-large-employer-plans/

Raeff, C., Greenfield, P. M., & Quiroz, B. (2000). Conceptualizing interpersonal relationships in the cultural contexts of individualism and collectivism. *New Directions for Child and Adolescent Development, 2000*(87), 59–74. https://doi.org/10.1002/cd.23220008706

Raphling, J. (2020, May 21). *COVID-19 running rampant in Ohio prisons.* The Columbus Dispatch. https://www.dispatch.com/opinion/20200521/column-covid-19-running-rampant-in-ohio-prisons

Rho, H. J., Brown H., & Fremstad, S. (2020, April). *A basic demographic profile of workers in frontline industries*. Center for Economic and Policy Research. https://cepr.net/wp-content/uploads/2020/04/2020-04-Frontline-Workers.pdf

Rhubart, D., Monnat, S. M., & Sun, Y. (2020, July 6). *Rural Ohio faces high health risk during the COVID-19 Pandemic.* Syracuse University Lerner Center for Public Health Promotion. https://lernercenter.syr.edu/2020/07/06/ds-26/

Rimer, B. K., & Kreuter, M. W. (2006). Advancing tailored health communication: A persuasion and message effects perspective. *Journal of Communication, 56*(s1), s184-s201. https://doi.org/10.1111/j.1460-2466.2006.00289.x

Robinson, D. H. Z., Klammer, S. M. G., Perryman, J. P., Thompson, N. J., & Arriola, K. R. J. (2014). Understanding African American's religious beliefs and organ donation intentions. *Journal of Religion and Health, 53*(6):1857–1872. https://doi.org/10.1007/s10943-014-9841-3

Rodríguez, M. A., Young, M. E., & Wallace, S. P. (2015). *Creating conditions to support healthy people: State policies that affect the health of undocumented immigrants and their families.* University of California Global Health Institute.

Rugaber, C. (2020, May 28). *41 million have lost jobs since virus hit, but layoffs slow.* PBS NewsHour. https://www.pbs.org/newshour/economy/41-million-have-lost-jobs-since-virus-hit-but-layoffs-slow

Rural Health Information Hub. (2020a). *Rural data explorer.* Health Resources and Services Administration, U.S. Department of Health and Human Services. https://www.ruralhealthinfo.org/data-explorer

Rural Health Information Hub. (2020b). *Rural community health toolkit: Identify assets/resources available.* https://www.ruralhealthinfo.org/toolkits/rural-toolkit/1/asset-identification

Russell, K. M., Champion, V. L., Monahyan, P. O., Millon-Underwood, S., Zhao, Q., Spacey, N., Rush, N. L., & Paskett, E. D. (2010). Randomized trial of a lay health advisor and computer intervention to increase mammography screening in African American women. *Cancer Epidemiology Biomarkers & Prevention, 19*(1), 201-210. https://doi.org/10.1158/1055-9965.EPI-09-0569

Santoli, J. M., Lindley, M. C., DeSilva, M. B., Kharbanda, E. O., Daley, M. F., Galloway, L., Gee, J., Glover, M., Herring, B., Kang, Y., Lucas, P., Noblit, C., Tropper, J., Vogt, T., & Weintraub, E. (2020). Effects of the COVID-19 pandemic on routine pediatric vaccine ordering and administration—United States, 2020. *Morbidity and Mortality Weekly Report, 69*(19), 591–593. https://doi.org/10.15585/mmwr.mm6919e2

Schaeffer, C. (2020, February 7). *6 facts about economic inequality in the U.S.* Pew Research Center. https://www.pewresearch.org/fact-tank/2020/02/07/6-facts-about-economic-inequality-in-the-u-s/

Schouten, F. (2020). *Trying to get on with our lives.* CNN. https://www.cnn.com/interactive/2020/03/politics/we-count-ohio/

Schwartz, K. L., Murti, M., Finkelstein, M., Leis, J. A., Fitzgerald-Husek, A., Bourns, L., Meghani, H., Saunders, A., Allen, V., & Yaffe, B. (2020). Lack of COVID-19 transmission on an international flight. *Canadian Medical Association Journal*, *192*(15), E410. https://doi.org/10.1503/cmaj.75015

Shah, A. (2020, August 7). *Inside Ohio's migrant camps*. Pulitzer Center. https://pulitzercenter.org/reporting/inside-ohios-migrant-camps

Sharpe, P. A., Greaney, M. L., Lee, P. R., & Royce, S. W. (2000). Assets-oriented community assessment. *Public Health Reports*, *115*(2-3), 205-211.

Sharpless, N. E. (2020). COVID-19 and cancer. *Science*, *368*(6497), 1290. https://doi.org/10.1126/science.abd3377

Shi, L. (2012). The impact of primary care: A focused review. *Scientifica, 2012*. https://doi.org/10.6064/2012/432892

Shi, X., Wheeler, K. K., Shi, J., Stallones, L., Ameratunga, S., Shakespeare, T., & Xiang, H. (2015). Increased risk of unintentional injuries in adults with disabilities: A systematic review and meta-analysis. *Disability and Health Journal, 8*(2), 153-164. https://doi.org/10.1016/j.dhjo.2014.09.012

Shoff, C., & Yang, T. -C. (2012). Untangling the associations among distrust, race, and neighborhood social environment: A social disorganization perspective. *Social Science & Medicine, 74*(9),1342–1352. https://doi.org/10.1016/j.socscimed.2012.01.012

Singh, G. K., Kogan, M. D., & Slifkin, R. T. (2017). Widening disparities in infant mortality and life expectancy between Appalachia and the rest of the United States, 1990–2013. *Health Affairs, 36*(8), 1423-1432. https://doi.org/10.1377/hlthaff.2016.1571

Singh, G. K., Rodriguez-Lainz, A., & Kogan, M. D. (2013). Immigrant health inequalities in the United States: Use of eight major national data systems. *The Scientific World Journal, 2013*, 1-21. https://doi.org/10.1155/2013/512313

Singh, M., & Koran, M. (2020, April 18). *'The virus doesn't discriminate but governments do': Latinos disproportionately hit by coronavirus.* The Guardian. https://www.theguardian.com/us-news/2020/apr/18/the-virus-doesnt-discriminate-but-governments-do-latinos-disproportionately-hit-by-coronavirus

Smith, O., & Wennerstrom, A. (2020, May 6). *To strengthen the public health response to COVID-19, we need community health workers*. Health Affairs Blog. https://www.healthaffairs.org/do/10.1377/hblog20200504.336184/full/

Solomon, E. M., Wing, H., Steiner, J. F., & Gottlieb, L. M. (2020) Impact of transportation interventions on health care outcomes: A systematic review. *Medical Care, 58*(4), 384-391. https://doi.org/10.1097/MLR.0000000000001292

Stahre, M., VanEenwyk, J., Siegel, P., & Njai, R. (2015). Housing insecurity and the association with health outcomes and unhealthy behaviors, Washington State, 2011. *Preventing Chronic Disease, 12*, e109. https://doi.org/10.5888/pcd12.140511

Starbird, L. E., DiMaina, C., Sun, C.-A., & Han, H.-R. (2019). A systematic review of interventions to minimize transportation barriers among people with chronic diseases. *Journal of Community Health, 44*(2), 400-411. https://doi.org/10.1007/s10900-018-0572-3

Standifer, C. & Zeltner, B. (2020, August 21). *Why did 77 Ohio inmates die of COVID-19, but just 10 Pennsylvania inmates?* WOSU Public Media. https://radio.wosu.org/post/why-did-77-ohio-inmates-die-covid-19-just-10-pennsylvania-inmates

Sugrue, T. J. (2009). *Sweet land of liberty: The forgotten struggle for Civil Rights in the North.* Random House.

Suleman, S., Garber, K. D., & Rutkow, L. (2018). Xenophobia as a determinant of health: An integrative review. *Journal of Public Health Policy, 39*(4), 407–423. https://doi.org/10.1057/s41271-018-0140-1

Syed, S. T., Gerber, B. S., & Sharp, L. K. (2013). Traveling towards disease: Transportation barriers to health care access. *Journal of Community Health, 38*(5), 976-993. https://doi.org/10.1007/s10900-013-9681-1

Tanqueco, R. & Patel, S. (2020). *Mental health facts for Asian Americans/Pacific Islanders.* American Psychiatric Association. https://www.psychiatry.org/psychiatrists/cultural-competency/education/mental-health-facts

Taylor, K. (2016). *From #BlackLivesMatter to black liberation*. Haymarket Books.

Taylor, R. J., Chae, D. H., Lincoln, K. D., & Chatters, L. M. (2015). Extended family and friendship support networks are both protective and risk factors for major depressive disorder and depressive symptoms among African-Americans and black Caribbeans. *The Journal of Nervous and Mental Disease, 203*(2), 132–140. https://doi.org/10.1097/NMD.0000000000000249

Taylor, R. J., Chatters, L. M., Lincoln, K., & Woodward, A. T. (2017). Church-based exchanges of informal social support among African Americans. *Race and Social Problems, 9*(1), 53–62. https://doi.org/10.1007/s12552-017-9195-z

Thomson, H., Thomas, S., Sellstrom, E., & Petticrew, M. (2009). The health impacts of housing improvement: A systematic review of intervention studies from 1887 to 2007. *American Journal of Public Health, 99*(S3), S681–S692. https://doi.org/10.2105/AJPH.2008.143909

Tomes, N. (2010). "Destroyer and Teacher:" Managing the masses during the 1918–1919 influenza pandemic. *Public Health Reports*, *125*(Suppl 3), 48–62. https://doi.org/10.1177/00333549101250S308

Tong, Z.-D., Tang, A., Li, K.-F., Li, P., Wang, H.-L., Yi, J.-P., Zhang, Y.-L., & Yan, J.-B. (2020). Potential presymptomatic transmission of SARS-CoV-2, Zhejiang Province, China, 2020. *Emerging Infectious Diseases*, *26*(5), 1052–1054. https://doi.org/10.3201/eid2605.200198

Social Explorer (2020a). *Explore over 500,000 data maps. https://www.socialexplorer.com/product-maps*

Social Explorer (2020b). *Total Population: Asian Alone in Ohio [Map]. ACS 2018, 5-Year Estimates*. https://www.socialexplorer.com/0dbe946f00/view

Turk, M. A., Landes, S. D., Formica, M. K., & Goss, K. D. (2020). Intellectual and developmental disability and COVID-19 case-fatality trends: TriNetX analysis. *Disability and Health Journal*, *13*(3), 100942. https://doi.org/10.1016/j.dhjo.2020.100942

U.S. Census Bureau. (2018a). *Ohio: American Community Survey 1-year estimates.* https://data.census.gov/cedsci/profile?g=0400000US39&q=Ohio

U.S. Census Bureau (2018b). *Ohio: Sex by Age, Hispanic or Latino. American Community Survey 5-year Estimates.* https://data.census.gov/cedsci/table?q=Ohio&t=Hispanic%20or%20Latino%3ARace%20and%20Ethnicity&g=0400000US39&tid=ACSDT5Y2018.B01001I&hidePreview=false

U.S. Census Bureau (2019a). *Health insurance search.* https://data.census.gov/cedsci/all?q=Health%20Insurance&t=Race%20and%20Ethnicity&g=0400000US39

U.S. Census Bureau (2019b). *Median earnings in the past 12 Months (In 2019 inflation-adjusted dollars) by disability status by sex for the civilian non-institutionalized population 16 years and over with earnings: Ohio, 2019 American Community Survey 1-Year Estimates.* https://data.census.gov/cedsci/table?q=B18140&g=0400000US39&tid=ACSDT1Y2019.B18140&hidePreview=true

U.S. Census Bureau. (2020a). *About race.* https://www.census.gov/topics/population/race/about.html

U.S. Census Bureau. (2020b). *QuickFacts: Ohio.* https://www.census.gov/quickfacts/OH

U.S. Census Bureau. (2020c). *QuickFacts: United States.* https://www.census.gov/quickfacts/fact/table/US/PST045219

U.S. Citizenship and Immigration Services. (2020, September 22). *Public charge fact sheet.* https://www.uscis.gov/archive/public-charge-fact-sheet#:~:text=Definition%20of%20Public%20Charge,month%20counts%20as%20two%20months

United States Department of Agriculture Economic Research Service (USDA ERS). (2020, September 9). *State fact sheets: Ohio.* Retrieved October 2, 2020, from https://data.ers.usda.gov/reports.aspx?StateFIPS=39&StateName=Ohio&ID=17854

University of Akron. (2008). *African Americans in antebellum Ohio.* Black, White & beyond: An interactive history. https://learn.uakron.edu/beyond/africanAm_antebellum.htm

Van Bavel J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., …Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behavior, 4*(5), 460-471. https://doi.org/10.1038/s41562-020-0884-z

van Dijk, J.A. (2006). Digital divide research, achievements and shortcomings. *Poetics, 34*(4-5) 221-235. https://doi.org/10.1016/j.poetic.2006.05.004

van Dijk, J.A. (2017). Digital divide: Impact of access. *The International Encyclopedia of Media Effects*. https://doi.org/10.1002/9781118783764.wbieme0043

van Doremalen, N., Bushmaker, T., Morris, D. H., Holbrook, M. G., Gamble, A., Williamson, B. N., Tamin, A., Harcourt, J. L., Thornburg, N. J., Gerber, S. I., Lloyd-Smith, J. O., de Wit, E., & Munster, V. J. (2020). Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. *The New England Journal of Medicine*, *382*(16), 1564–1567. https://doi.org/10.1056/NEJMc2004973

Van Tassel, D. D. & Grabowski, J. J. (1996). *The encyclopedia of Cleveland history* (2nd ed.). Bloomington: Indiana University Press.

Varner, I., & Beamer, L. (2011). *Intercultural communication in the global workplace.* The McGraw-Hill Companies.

Vega, W. A. (1995). The study of Latino families. In R. Zambrana (Ed). *Understanding Latino families: Scholarship, policy, and practice* (pp. 3-17)*.* Sage Publications, Inc.

Vestal, C. (2020a, June 15). *Racism is a public health crisis, say cities and counties.* The Pew Charitable Trusts. PEW: Stateline. https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/06/15/racism-is-a-public-health-crisis-say-cities-and-counties

Vestal, C. (2020b). *Racism is a public health crisis, local governments declare.* American Psychological Association. https://www.planning.org/planning/2020/aug/intersections-equity/

Vias, S., Siu, J., Maru, S., Abbott, J., St. Hill, I., Achilike, C., Wu, W.-J., Adegoke, T. M., & Steer-Massaro, C. (2020). Rides for refugees: A transportation assistance pilot for women's health. *Journal of Immigrant and Minority Health, 22*(1), 74-81. https://doi.org/10.1007/s10903-019-00946-x

Viruell-Fuentes E. A. (2007). Beyond acculturation: immigration, discrimination, and health research among Mexicans in the United States. *Social science & medicine (1982)*, *65*(7), 1524–1535. https://doi.org/10.1016/j.socscimed.2007.05.010

Viruell-Fuentes, E. A., Miranda, P. Y., & Abdulrahim, S. (2012). More than culture: structural racism, intersectionality theory, and immigrant health. *Social science & medicine (1982)*, *75*(12), 2099–2106. https://doi.org/10.1016/j.socscimed.2011.12.037

Washington Post/Kaiser Family Foundation, The. (2017, June). *Survey of rural America.* http://apps.washingtonpost.com/g/page/national/washington-post-kaiser-family-foundation-rural-and-small-town-america-poll/2217/

Washington, H. A. (2006). *Medical Apartheid: The dark history of medical experimentation on Black Americans from Colonial times to the present.* Anchor.

Waters, M. C. & Pineau, M. G. (Ed.) (2015). *The integration of immigrants into American society.* National Academies of Sciences, Engineering, and Medicine, The National Academies Press. https://doi.org/10.17226/21746

Wei, W. E., Li, Z., Chiew, C. J., Yong, S. E., Toh, M. P., & Lee, V. J. (2020). Presymptomatic transmission of SARS-CoV-2—Singapore, January 23–March 16, 2020. *Morbidity and Mortality Weekly Report, 69*(14), 411–415. https://doi.org/10.15585/mmwr.mm6914e1

Weigel, G., Ramaswamy, A., Sobel, L., Salganicoff, A., Cubanski, J., & Freed, M. (2020, May 11). *Opportunities and carriers for telemedicine in the U.S. during the COVID-19 emergency and beyond.* Kaiser Family Foundation. https://www.kff.org/womens-health-policy/issue-brief/opportunities-and-barriers-for-telemedicine-in-the-u-s-during-the-covid-19-emergency-and-beyond/

Wells, K. B., Jones, F., & Norris, K. C. (2020). Applying community-partnered participatory research approaches to develop COVID-19 solutions. *Ethnicity & Disease, 30*(3), 433–436. https://doi.org/10.18865/ed.30.3.433

Whiteis, D. G. (2010). Poverty, policy and pathogenesis: Economic justice and public health in the US. *Critical Public Health, 10*(2), 257-271. https://doi.org/10.1080/09581590050075989

Williams, W. W., Lu, P.- J., O'Halloran, A., Kim, D. K., Grohskopf, L. A., Pilishvili, T., Skoff, T. H., Nelson, N. P., Harpaz, R., Markowitz, L. E., Rodriguez-Lainz, A., & Fiebelkorn, A. P. (2017). Surveillance of vaccination coverage among adult populations — United States, 2015. *MMWR Surveillance Summaries, 66*(11), 1-28. http://dx.doi.org/10.15585/mmwr.ss6611a1

Winslow, L. (2017). *Economic Injustice and the Rhetoric of the American Dream.* Lexington Books.

Wolfe, M. K., & McDonald, N. C. (2020). Innovative health care mobility services in the US. *BMC Public Health, 20*(1), 906. https://doi.org/10.1186/s12889-020-08803-5

Wolfe, M. K., McDonald, N. C., & Holmes, G. M. (2020). Transportation barriers to health care in the United States: Findings from the national health interview survey, 1997-2017. *American Journal of Public Health, 110*(6), 815-822. https://doi.org/10.2105/AJPH.2020.305579

Wolff, T., Kinkler, M., Wolfe, S. M., Berkowitz, B., Bowen, L., Butterfoss, F. D., Christens, B. D., Francisco, V. T., Himmelman, A. T., & Lee, K. S. (2017, January 9). *Collaborating for equity and justice: Moving beyond collective impact.* Non-Profit Quarterly. https://nonprofitquarterly.org/collaborating-equity-justice-moving-beyond-collective-impact/

Wolitski, R. J., Kidder, D. P., Pals, S. L., Royal, S., Aidala, A., Stall, R., Holtgrave, D.R., Harre, D., Courtenay-Quirk, C., & Housing and Health Study Team (2010). Randomized trial of the effects of housing assistance on the health and risk behaviors of homeless and unstably housed people living with HIV. *AIDS and Behavior, 14*(3), 493-503. https://doi.org/10.1007/s10461-009-9643-x

Wong, T. K. (2015, July 6). *Reaching Undocumented Asian Americans and Pacific Islanders in the United States*. Center for Migration Studies. https://doi.org/10.14240/cmsesy070615

World Health Organization (WHO). (2020 March 16). *Risk communication and communication engagement (RCCE) action plan guidance COVID-19 preparedness & response: Interim guidance.* https://www.who.int/publications/i/item/risk-communication-and-community-engagement-(rcce)-action-plan-guidance

Yang, K. L. & Tan, H. E. (2018). *Disability statistics.* https://www.disabilitystatistics.org/reports/acs.cfm?statistic=7

Yip, T., Gee, G. C., & Takeuchi, D. T. (2008). Racial discrimination and psychological distress: The impact of ethnic identity and age among immigrant and United States–born Asian adults. *Developmental Psychology, 44*(3), 787-800. https://doi.org/10.1037/0012-1649.44.3.787

Young Center for Anabaptist and Pietist Studies, Elizabethtown College. (2019). *Amish population 2019*. Amish Studies: The Young Center. http://groups.etown.edu/amishstudies/statistics/population-2019/

Yue, X., Black, C., Ball, S., Donahue, S., De Perio, M. A., Laney, A. S., & Greby, S. (2017). Workplace interventions associated with influenza vaccination coverage among health care personnel in ambulatory care settings during the 2013–14 and 2014–15 influenza seasons. *American Journal of Infection Control, 45*(11), 1243–1248. https://doi.org/10.1016/j.ajic.2017.05.016

Zablotsky B., & Black L. I. (2020). Prevalence of children aged 3-17 years with developmental disabilities, by urbanicity: United States, 2015-2018. *National Health Statistics Report, 139,*1-7.

Zhao, G., Okoro, C. A., Hsia, J., Garvin, W. S., & Town, M. (2019). Prevalence of disability and disability types by urban-rural county classification-U.S., 2016. *American Journal of Preventive Medicine*, *57*(6), 749–756. https://doi.org/10.1016/j.amepre.2019.07.022

Zhou, J., Otter, J. A., Price, J. R., Cimpeanu, C., Garcia, D. M., Kinross, J., Boshier, P. R., Mason, S., Bolt, F., Holmes, A. H., & Barclay, W. S. (2020). Investigating SARS-CoV-2 surface and air contamination in an acute healthcare setting during the peak of the COVID-19 pandemic in London. *Clinical Infectious Diseases,* ciaa905. https://doi.org/10.1093/cid/ciaa905

Zivich, P. N., Gancz, A. S., & Aiello, A. E. (2018). Effect of hand hygiene on infectious diseases in the office workplace: A systematic review. *American Journal of Infection Control, 46*(4), 448–455. https://doi.org/10.1016/j.ajic.2017.10.006