Appendix H: Questions for Inquiry and Action

These questions from the Transforming 911 report identify areas that require additional research.

Wave One: These questions were ranked highest by the Transform911 research delegates and are recommended for the first wave of 911 research.

1.1 What share and types of calls to 911 and 311 are appropriate for diversion to alternative responders or co-response units? To what degree do existing alternative responder resources and co-response units meet the needs of various communities, call types, and populations? What gaps exist and by what type of calls/needs and areas of alternative responder expertise?

1.2 Are community members more or less satisfied with services they receive via alternative responders versus police officers? To what degree do services received through alternative responders affect community members’ perceptions of trust in municipal services, public safety services, and the government overall? To what degree do they affect community members’ future willingness to call 911 for police services? To what degree do they affect community members’ future willingness to call alternative hotlines? Do these outcomes vary by type of alternative responder and/or type of problem or issue to which they respond?

1.3 How effective are alternative first responder programs at resolving problems and reducing police dispatch, use of force and disparate outcomes, especially for those who reside in marginalized communities, communities of color, and areas with historically high 911 call volume? What are the advantages and disadvantages of giving 911 professionals more agency to divert calls from police dispatch? What is the impact on public safety outcomes, use of excessive force, racial disparate policing, and community trust in the police?

1.4 How and to what extent would increased community availability and awareness of behavioral health resources and supports allow 911 professionals to divert more calls from police response?

1.5 How could 911 technology infrastructure better support standardized data collection around volume and type of 911 calls, responses, and associated outcomes?

1.6 To what degree does the introduction or expansion of alternative hotlines divert calls away from 911, reduce the dispatch of police officers, or increase the dispatch of non-sworn social workers or mental health clinicians?

1.7 To what degree does co-location of nurses, mental health clinicians, or social workers at ECCs facilitate safer and more effective safety and health outcomes for people in need?

1.8 What share and types of calls to 911 and 311 result in police dispatch? What share and types of those calls result in a co-response, and what types of co-responses (paramedics and police, mental health specialists and police etc.) are those calls receiving? To what degree does that vary by ECC, region, or state? How accurate is the coding and classification of data on call type and priority level? What methods can improve the accurate classification of calls and thus the quality of data needed to improve the quality and efficiency of ECC service delivery?
1.9 What are the relative benefits of various call-taking and triaging protocols and standards? To what degree do they improve accurate classification and coding? To what degree do they result in over- or under-triaging?

1.10 What policies and calltaking protocols work best in identifying which calls to divert to alternative resolution or responder? To what degree do calltakers comply with those guidelines? What are the differential outcomes in call resolution based on variation in calltaker compliance? What strategies work best in ensuring calltaker compliance? To what degree does calltaker engagement or training influence the accuracy of alternative responder protocols and degree of implementation fidelity?

1.11 To what degree does the introduction of various forms of alternative hotlines reduce or increase racially disparate outcomes?

1.12 What are the intersections among 911, 311, and 988 governance models and how can they inform efforts at streamlining coordination, cost-containment, and efficiency of service delivery?

1.13 What is the difference in the quality of response to calls made to alternative hotlines versus those made through 911?

1.14 How is CAD best structured to support optimal outcomes for call-taking, triaging, assessment, dispatch, response, and follow-up? How might different CAD user interfaces or dashboards influence triaging decisions?

1.15 How can technology needs be assessed objectively in a manner that informs the actual needs of the 911 profession and community rather than guided by the introduction of new applications promoted vendors?

1.16 What is the impact of training 911 professionals in implicit bias and procedurally-just interactions with members of the public as measured by rate of 911 professional call resolution, share of calls resulting in police dispatch, nature of police response, and public safety and wellness outcomes?

1.17 What framework would support the national collection of 911 data to understand the volume, type, resolution, and costs of calls and their associated responses? How might such a data collection inform 911 governance models in the context of increasing equitable access to emergency services and reducing harms and disparate outcomes?

1.18 What are the most effective recruitment and retention strategies for 911 professionals? How does the effectiveness of these strategies vary by age, sex, geography, and other factors?

1.19 What share of alternative hotline calls are resolved without having to dispatch someone? What share result in the dispatch of an officer versus a social worker, mental health clinician, or other non sworn responder?

**Wave Two:** These questions are recommended for the second wave of 911 research.

2.1 Do alternative hotlines lead to reductions in police dispatches by race and community demographics?
2.2 To what degree does the underlying 911 technological infrastructure reduce or exacerbate the under- or over-triaging of calls to 911? Can changes to 911 technology reduce the over-triaging of calls pertaining to people of color?

2.3 To what degree does reclassification of 911 professionals from administrative to first responder facilitate better outcomes for field responders and for people who are the subject of calls?

2.4 Recognizing that the measurement of bias in service delivery of any type is vital to an equitable and well-functioning government, to what degree do alternative first responses mitigate or exacerbate biased outcomes? How might these outcomes vary by the degree to which they are connected to or involve the police?

2.5 What impact do alternative response models have on measures of police and community safety? Do these impacts differ by type of community (urban, rural, affluent, marginalized) and demographic of caller and subject(s) of call?

2.6 What are the relative costs (including time spent on scene) and potential savings of alternative hotlines, and where are any savings reinvested (e.g., to support the operation of the hotline or back into the community)? Do they reduce disparate outcomes associated with those calls that still result in police dispatch?

2.7 Do variations in behavioral health resources by community demographics lead to disparate outcomes for community members? To what degree does increasing access to behavioral health resources in communities of color reduce police dispatch, arrests, and use of force in response to such calls?

2.8 How can technology provide better 911 and alternative hotline access for users who are nonverbal, hearing impaired, or who do not speak English fluently? How well does text-to-911 serve their needs?

2.9 How do different communication types (call, text, multimedia) affect performance indicators like call outcome and response time? Do they have any impact in promoting more or less equitable and less harmful responses to request for emergency services?

2.10 What share of non-police alternative responses ultimately result in police dispatch? Does this proportion vary by call type or characteristics of the community, caller, or call subject(s)? What factors are associated with calls for police dispatch that occur before arrival of the alternative response versus during or after alternative responses are attempted?

2.11 What data are needed to support triage and dispatch protocols for communities with alternative response options?

2.12 What types of governance structures work best in the interest of promoting interoperability and coordination between public safety and nonprofit or other governmental crisis hotlines and responders? What are the impacts of improvements to 911 professionals’ supervision, wellness supports and resources, and compensation levels on their job satisfaction, job performance, and tenure?
What impact will the introduction on 988 have on the share of people who seek helpline versus 911 services? What are the issues and challenges associated with rerouting calls to 911 to 988 and vice versa? Are people who seek suicide and mental health services through 988 less likely to experience a police response or hospitalization compared with those who call 911 for the same services? To what degree does the inability of 988 to geolocate the call source compromise the ability to provide life-saving services?

What changes to the structure of ECCs would promote more accessible, equitable, and effective delivery of emergency services (e.g., increase access to people with disabilities, reduce over- and under-triaging, support the offloading of appropriate calls to alternative resources/responders)?

To what degree do efforts to create more behavioral health resources (e.g., the inclusion of mental health professionals in ECCs, the increase in availability of behavior health services in the community) improve service delivery and reduce the use of police responders?

How can governance support communications strategies to encourage the public to use alternative hotlines, such as 988, and what is required to enable 911 professionals to reroute callers to 988?

Is it possible to isolate whether some types of governance structures lead to more efficient, cost-effective, and equitable outcomes in public safety and crisis intervention service delivery compared with others?

To what degree do more inclusive governance models lead to more equitable delivery of public safety and crisis intervention services?

To what extent do existing training opportunities meet the needs of 911 professionals and the demands of the job? Why do some 911 professionals pursue in-service training opportunities while others do not? What is the impact of certification and training requirements on 911 professionals' capabilities and job performance, particularly with regard to resolving calls on their own and adherence to triage and dispatching policies and protocols?

How can 988 be governed to ensure that emergency services are delivered quickly in life-threatening circumstances while protecting the privacy and anonymity of callers?

How can existing and NG911 technologies be improved to promote more seamless and efficient rerouting from 911 to alternative hotlines and helplines?

How can machine learning assist 911 professionals to provide appropriate responses to medical and other emergencies?

What internal (e.g., personality, coping) and external (e.g., work conditions, shift) factors increase the likelihood of resilience among 911 professionals?

Are alternative hotline responses faster or slower (including call hold time)?
2.25 What is the nature of existing demand for and current responses to calls for emergency and crisis services and how does that inform various governance structures and consolidation measures?

2.26 What are the advantages and disadvantages of different 911 funding models, and which ones best support efforts to divert calls for emergency services to alternative responders?

2.27 To what degree does Smart911 improve the speed and effectiveness of 911 services and responses? Does Smart911 result in improved communications and better quality services, particularly to those who are nonverbal, hearing impaired, have cognitive or developmental disabilities, or do not speak English fluently?

Wave Three: These questions are recommended for the third wave of 911 research.

3.1 What is the degree to which alternative first responses increase or decrease burden on call center professionals? To what degree does the introduction of new alternative responder options slow down or speed up the triaging and call resolution processes?

3.2 How can existing national standards and protocols be catalogued and assessed to highlight best practices, as well as existing opportunities, gaps, overlap, difference, and conformance?

3.3 To what degree does the introduction of texting, video calls, and inclusion of photos by 911 callers affect 911 communications operations in terms call-takers’ abilities to manage information efficiently? How do these new communication mechanisms and data sources affect the stress level of 911 professionals and their degree of compassion fatigue and burnout? How can those outcomes be anticipated and prevented or mitigated?

3.4 To what degree does call-taker alarmism vary by call-taker demographics and tenure? How does the level of call-taker alarmism impact decisions to route to a first responder versus an alternative responder? How does it affect first responder decisions to arrest or use force? What measures are effective in reducing call-taker alarmism?

3.5 What types of governance structures are most effective and efficient in terms of costs and harm reduction?

3.6 To what degree does reclassification of 911 professionals from administrative to first responder facilitate recruitment and retention, or increase job satisfaction, pay equity, and retention rates?

3.7 What are the most effective approaches to educate communities about accessing 911 and 988?

3.8 How does the introduction of texting, video calls, and inclusion of photos by 911 callers affect 911 communications operations in terms of facilitating better communications with the hearing and visually impaired and people with language barriers?

3.9 How does lack of cellular network coverage affect 911 accessibility in rural and tribal areas?

3.10 What is the difference in caller satisfaction with services rendered between 911 and 311 for the same call type?
3.11 What is the difference in the provision of appropriate follow-up services between 911 and 311 for the same call type?

3.12 What are the effects of anti-bias 911 laws on the number and types of calls of service and the ability of 911 professionals and ECC operations to document those calls accurately?

3.13 To what degree do call-taking and triaging facilitation and automation technologies yield more consistent and equitable responses and more effective service delivery? Are technologies developed in partnership with ECC professionals more or less effective?

3.14 To what degree does the addition of alternative response models affect the volume of 911 calls for police service and calls to 311 or other alternative hotlines?

3.15 To what degree should 988 governance mirror or differ from 911 governance models?

3.16 What role does governance play in communicating to various communities and demographics the existence and value of alternatives to 911 and the cases in which 911 should be used?

3.17 How can emergency communications systems be fortified against outages, network overload, and cyberattacks?

3.18 What would be the budgetary impacts both for independent multi-jurisdiction ECCs and for public safety agencies that manage emergency calling services of creating career and compensation parity for 911 professionals on par with those for field responders and public safety officers?

3.19 How might principles of behavioral economics be employed to incentivize 911 professionals from over-triaging? How might they be applied in the design of CAD user interfaces to streamline call-taking and encourage the use of alternative responders? What is the degree of their effectiveness?

3.20 What measures are effective in breaking down silos and encouraging greater understanding and cooperation among 911 professionals and field responders?

3.21 What efforts have been made to engage community members from high 911-use communities in PSAP governance and what have been the outcomes of those efforts?

3.22 What can we learn from tracking ECC migration to NG911 to better understand technological barriers and what factors support successful migration? Are some ECCs better equipped to make the transition to NG911 based on the entity in which they are housed (e.g., police, fire/EMS) or the governance structure under which they operate?

3.23 What measures are effective in reducing the stigma that 911 professionals and field responders may have with regard to people who use drugs?

3.24 Which structures and processes have strong public oversight and what are the advantages and disadvantages of such citizen-oriented accountability mechanisms?
3.25  How can governance promote NG911 transition to improve accessibility of emergency and crisis services, particularly to those with disabilities?

3.26  What has the impact of the NG911 grant program been in facilitating migration to 911? What are the remaining gaps in technical assistance and resource needs among ECCs nationwide?

3.27  What are the most efficient ways to detect and handle false alarms and accidental calls?

3.28  How can lags and lapses in service during the transition to NG911 be prevented or mitigated?

3.29  What are the privacy concerns and protections needed for people accessing service via 911 and 988?