

Health Care Access in Boston

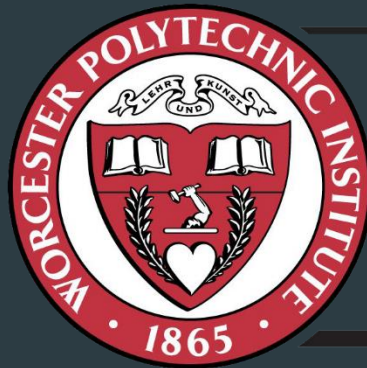
*Understanding the Impacts of Displacement and the
use of Transit System on access to health care*

Maddison Caron

Tyler Ducharme

Kelsey Leigher

Thyagarajan Ramachandran



WPI

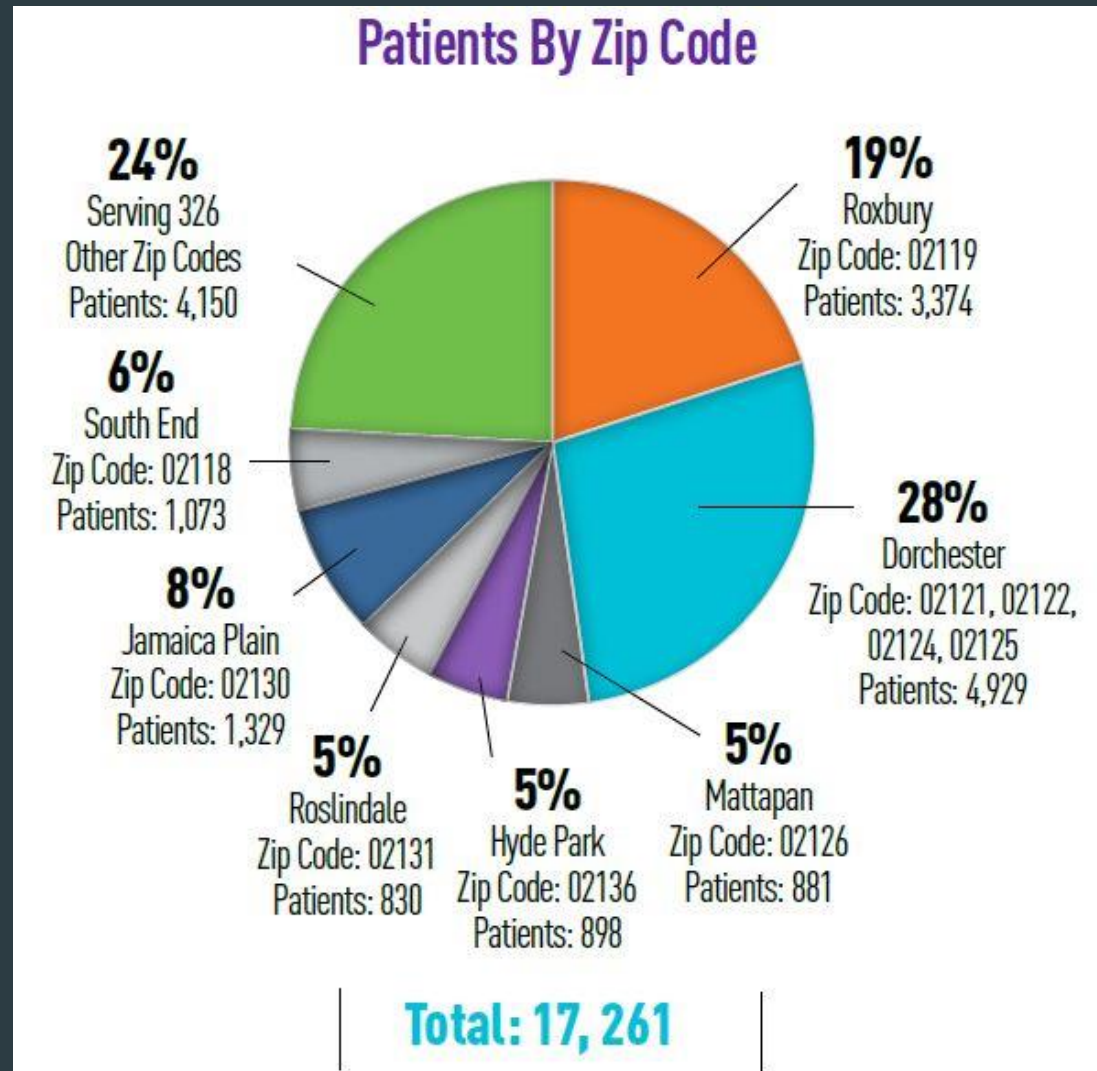
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539,315 passengers ride
the MBTA subway on a
daily basis



81% of patients travel from other neighborhoods of Boston that have well established Community Health Centers

Research Gap

Displacement	Public Transportation

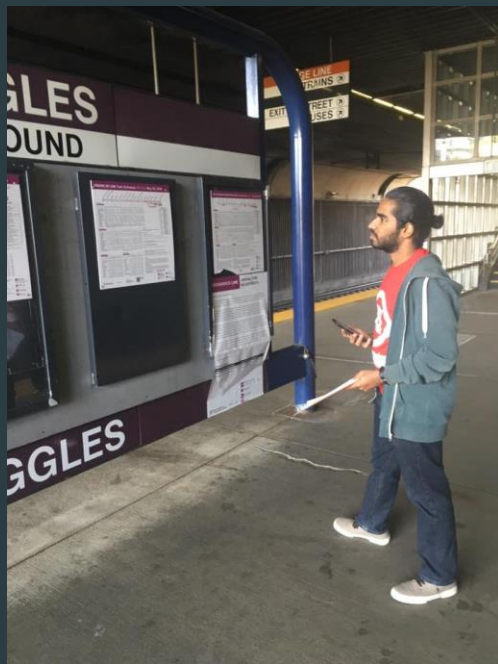
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graph TD; Goal[Our goal: Understand how displacement and public transportation impact health care access] --- Line1[ ]; Line1 --- Line2[ ]; Line2 --- Obj1[Objective 1: Identified health care choices]; Line2 --- Obj2[Objective 2: Identified barriers to health care access]; Line2 --- Obj3[Objective 3: Determined how often patients go to health centers because of barriers];
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Our goal: Understand how displacement and public transportation impact health care access

Objective 1:
Identified health care choices

Objective 2:
Identified barriers to health care access

Objective 3:
Determined how often patients go to health centers because of barriers



T stations



Designing the Survey

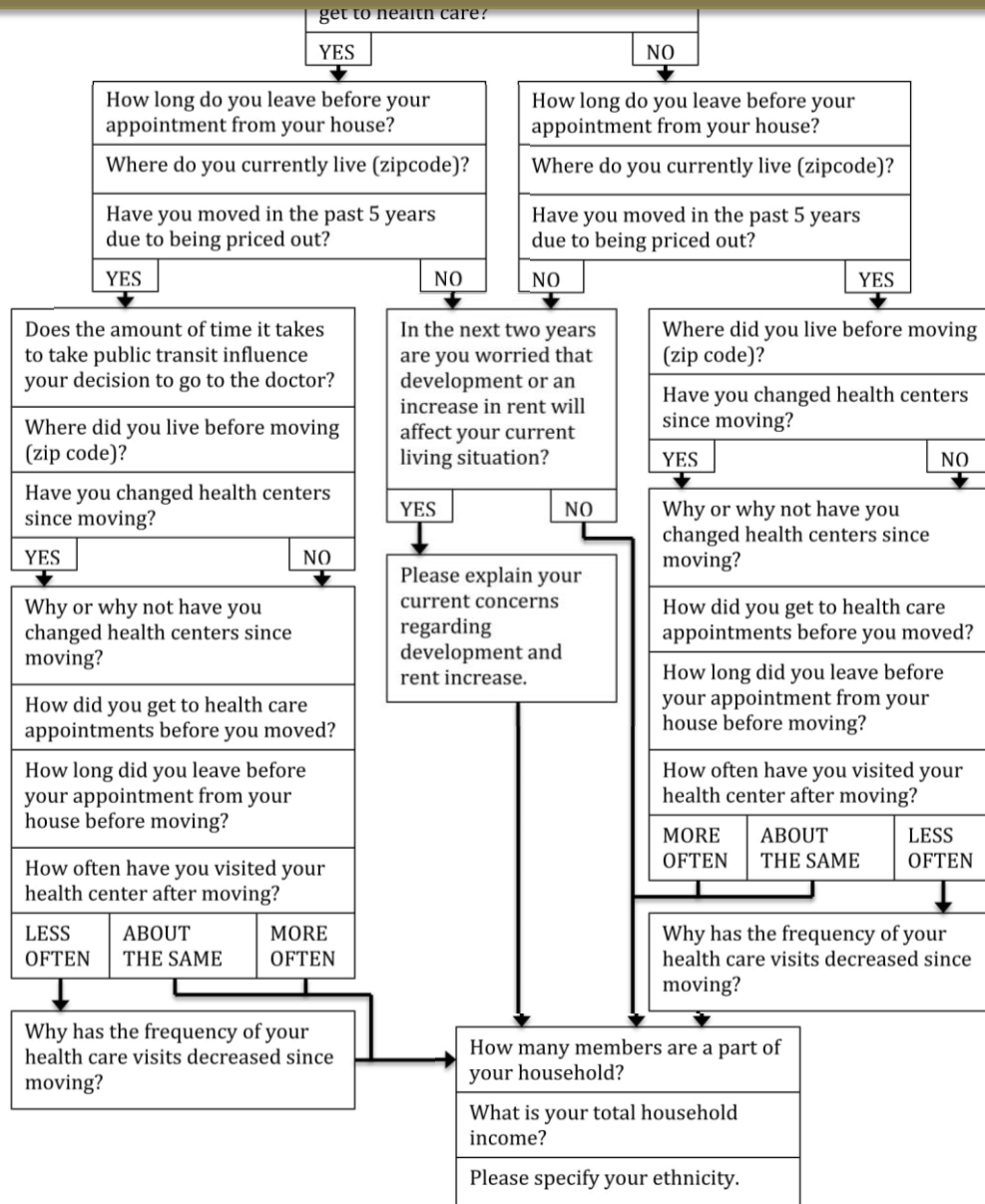
Step 1: Determining Target Audience with Identifiers

Community Health Centers (Only for Survey at T stations)
Public Transportation
Gentrified

Step 2: Questions in Each Box

	Public Transportation	Not Public Transportation
Gentrified	<ul style="list-style-type: none">• Change in number of healthcare appointments?• Late or missed appointments due to public transportation?	<ul style="list-style-type: none">• Change in number of healthcare appointments?• How much time do you budget?
Not Gentrified	<ul style="list-style-type: none">• Are you worried of being displaced?• Late or missed appointments due to public transportation?	<ul style="list-style-type: none">• Are you worried of being displaced?• How much time do you budget?

Step 3: Order of Questions



Step 4: Survey Platform (Google Forms)

The screenshot shows a Google Forms interface for a survey titled "Patient Survey (1)". The form is set to "Edit questions" mode. The header of the form features the ACE logo and the text "alternatives for community & environment" and "building power for environmental justice".

The survey contains the following questions:

- What is your primary way to get to health care centers?**
How did you get to your health care appointment today?
 - ☐ Car
 - ☐ Walk
 - ☐ Bike
 - ☐ Got a ride
 - ☐ Public transportation
 - ☐ Other:
- How long do you leave before your appointment from your house?**
Total time taken out of the day (Mins)
- How much travel time does it actually take to get here from your home?**
Total travel time (Mins)
- Where do you currently live?**
Please give the intersection closest to your home (and zip code)

At the bottom of the form, there are two buttons: « Back and Continue ».

Budgeting extra time helps people avoid being late to appointments due to public transportation

87% of people were rarely or never late to appointments because of public transportation

“I leave early because the buses are usually off or the schedule is off”

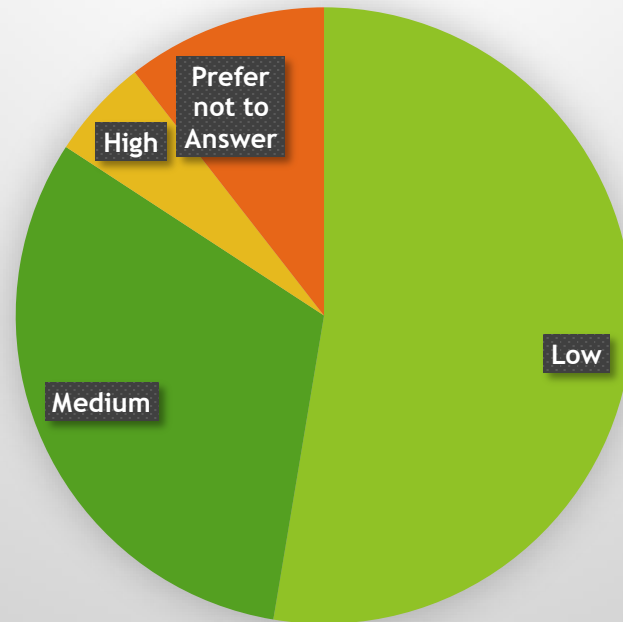
“I have the [MBTA] bus app and sometimes it will be way off of when the bus actually comes”

Budgeting extra time helps people avoid being late to appointments due to public transportation

Patient's Home	Community Health Center	Time Budgeted (minutes)	Time Actually Taken (minutes)	Extra Time Budgeted (minutes)
Chelsea	Jamaica Plain	90	80	10
Dorchester	Bowdoin	10	4	6
Dorchester	Dimock	60	14	46
Dorchester	Dimock	30	10	20
Dorchester	Jamaica Plain	75	65	10
Dorchester	South End	60	30	30
Dorchester	Whittier	60	34	26
Dorchester Center	Uphams Corner	60	24	36
Hyde Park	Mattapan	30	30	0
Jamaica Plain	Jamaica Plain	45	15	30
Jamaica Plain	Jamaica Plain	30	30	0
Jamaica Plain	Jamaica Plain	60	30	30
Jamaica Plain	Jamaica Plain	30	10	20
Jamaica Plain	Jamaica Plain	60	30	30
Mattapan	Whittier	90	36	54
Randolph	South Boston	90	61	29
Roxbury	Dimock	60	14	46
Roxbury	Harvard Street	90	20	70
Roxbury	Jamaica Plain	20	20	0
Roxbury	Uphams	40	26	14
Roxbury Crossing	Dimock	45	18	27
West Roxbury	Jamaica Plain	60	60	0

Perceived Gentrification

Income Levels of Respondents Who Worry about Gentrification



Perceived Gentrification

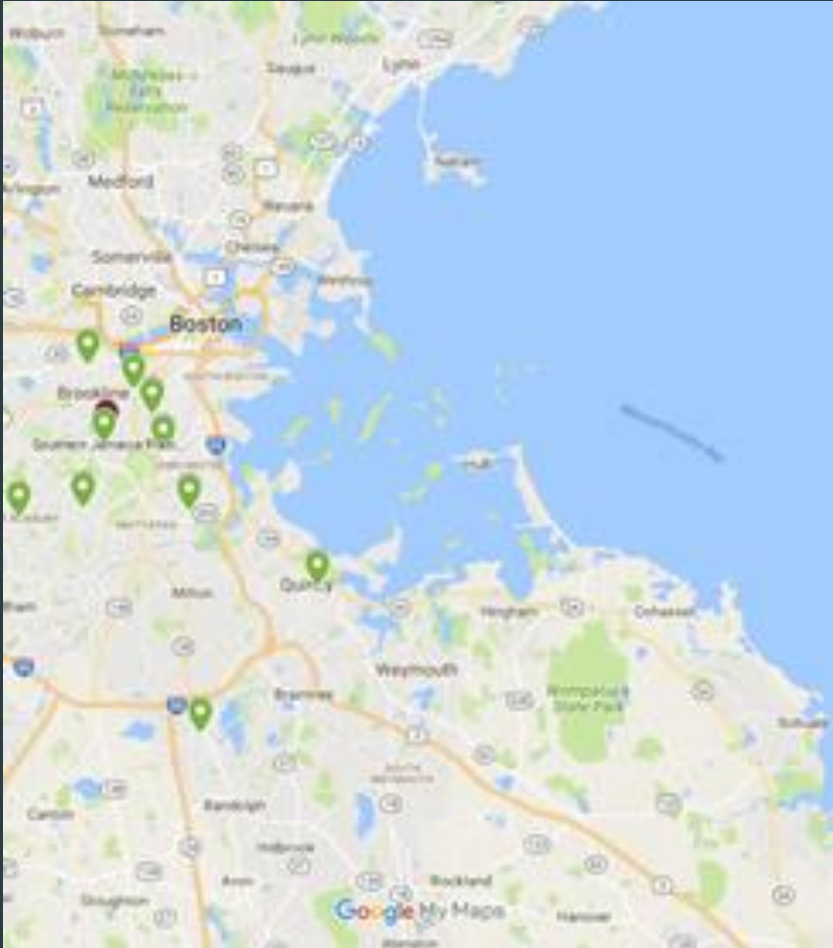


Figure 10: Locations of Respondents Worried About Gentrification

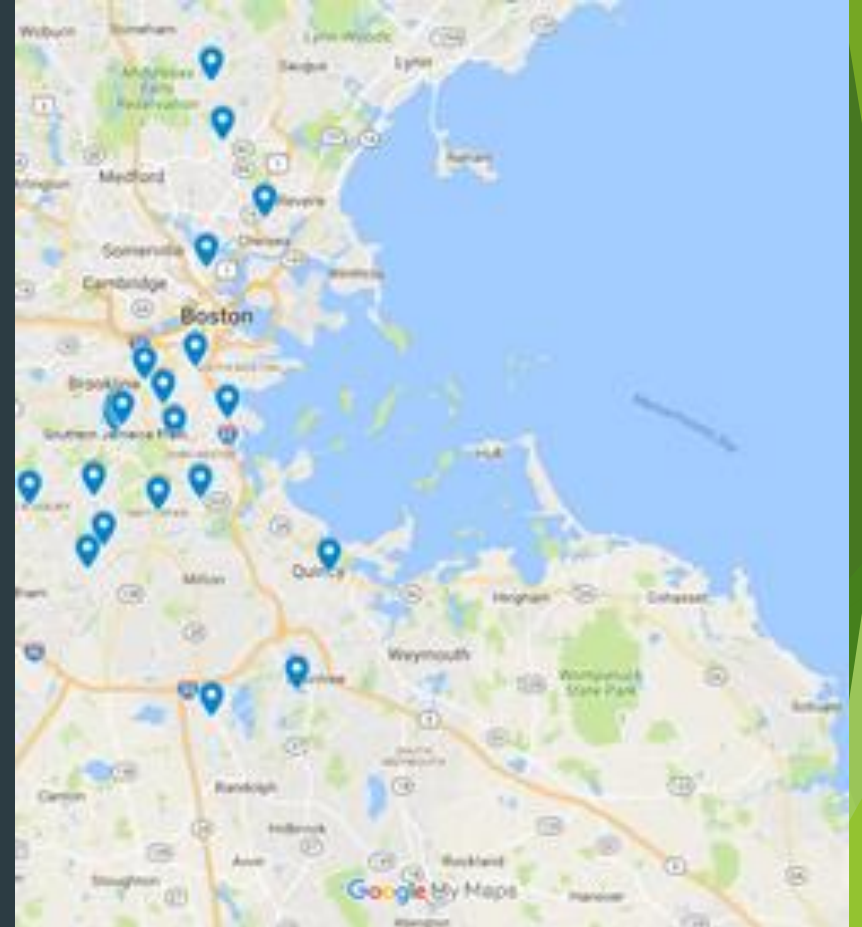


Figure 11: Locations of Respondents Who are not Worried About Gentrification

Recommendations

Build a closer network between different community health centers throughout Boston

- ▶ Health Centers more aware of the distance and commutes patients face to make it to their health appointment
- ▶ System where patients who can't make it all the way to their preferred health center can attend a closer one
 - ▶ Health center can help find an available time at closer health center



Connect low-income residents to non-governmental organizations (NGO's) in Boston

► Advantages

- Fight unfair evictions
- Aid distribution, shelter, health, water, sanitation, nutrition and education projects
- Hand flyers to residents displaced or risk of being displaced after survey
- Effort to connect residents with a community organization would benefit the researchers, the organization, and the resident

“I’m not worried [about displacement] because of the NGO in my neighborhood, they help out with stuff like that.”





Thank You!

Questions?

Question Topics

- ▶ Other Findings
- ▶ Other Recommendations
- ▶ Survey Tool Stuff
- ▶ Other Stories
- ▶ Facts & Figures

Other Stories

- ▶ Respondent who had to move to a shelter
- ▶ “What do you mean why? I’ve been going there forever”
- ▶ Professor Seth who lives in Quincy
- ▶ Family Van




Other Recommendations

Provide more support to patients based on where they are coming from for their health care appointments

- ▶ Health centers should become more aware of patients' length of commute when scheduling and making appointments
 - ▶ May try to keep track of which patients face difficulties with their commute and counteract them with more lenient windows of time for patients to come for appointments
 - ▶ Leniency could allow for better health care access for patients travelling significant distances

Offer public transportation between where people reside and their old communities

- ▶ We recommend that a transportation system be implemented that has the ability to take residents from their current neighborhoods to their desired locations in other neighborhoods
 - ▶ Would cut down on the uncertainty of time in people's commutes when trying to get to their appointments
 - ▶ Reduces the amount of time patients take out of their day to commute
- 

Facts & Figures

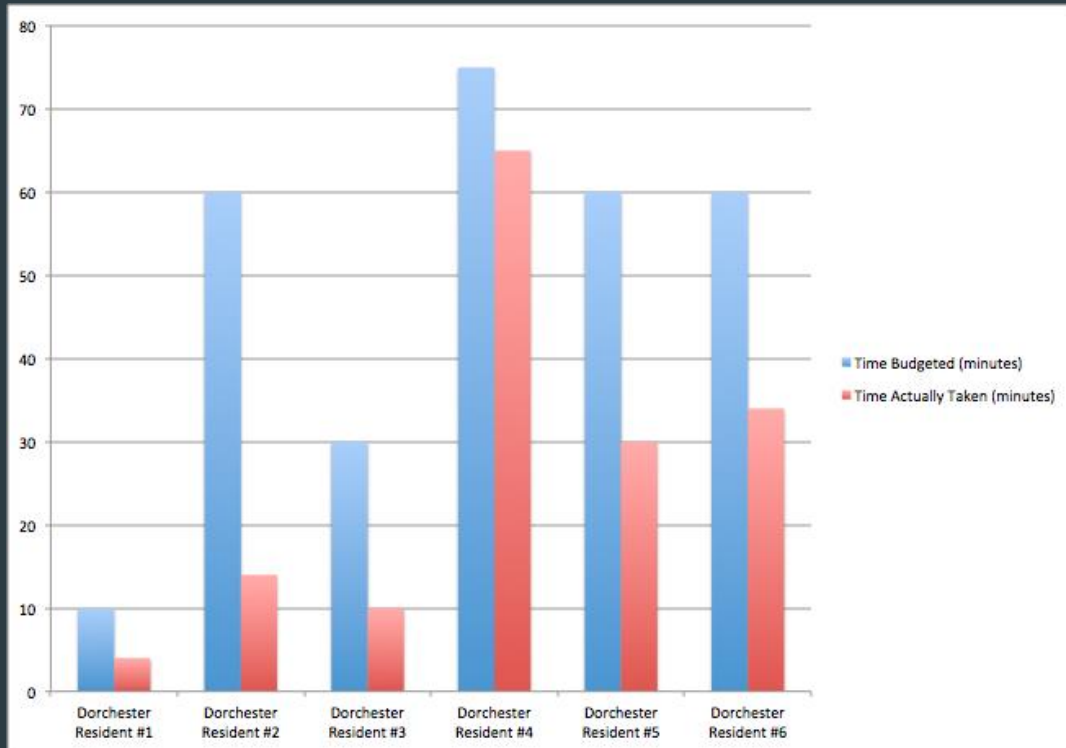


Figure 5: Time Budgeted vs. Time Actually Taken to Travel to Six Respondent's CHC

Responses to "Have you ever been late to or missed an appointment due to public transportation?"

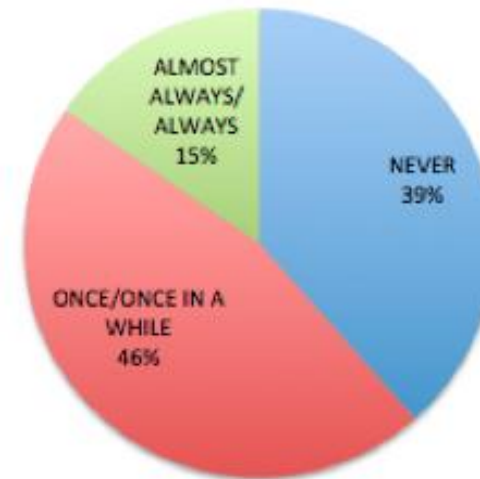


Figure 4: Responses to "Have you ever been late to or missed an appointment due to public transportation?"

Step 4: Survey Platform (Google Forms)






The screenshot shows a Google Forms interface for a survey titled "Patient Survey (1)". The form is set to "Edit questions" mode. The header of the form features the ACE logo and the text "alternatives for community & environment" and "building power for environmental justice".

The survey questions are as follows:

- What is your primary way to get to health care centers?**
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 - ☐ Bike
 - ☐ Got a ride
 - ☐ Public transportation
 - ☐ Other:
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At the bottom of the form, there are two buttons: « Back and Continue ».

Adding Questions

← → ↻ 🏠 https://docs.google.com/forms/d/1IPsfwOKP1Patnnaba7LOKuAkzle31zP_FMr8LJpqTto/edit ☆      ⋮

Patient Survey (1) ☆ 📁 hari1th.thyagarajan@gmail.com

File Edit View Insert Responses (47) Tools Add-ons Help All changes saved in Drive

↶ ↷ Edit questions Change theme 📄 View responses 🌐 View live form ⤴

☐ No

☐ No but Guardian or Parent of one

.....

Question Title

Untitled Question

Help Text

Question Type

Multiple choice ▾

☐ Go to page based on answer

☐ Option 1

☐ Click to add option

or Add "Other"

▸ Advanced settings

Done

☐ Required question

Add item ▾






After page 1

Continue to next page ⤴

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What is your current health status?

Branching Question

← → ↺ 🏠 https://docs.google.com/forms/d/1IPsfwOKP1Patnnaba7LOKuAkzle31zP_FMr8LJpqTto/edit ☆      ⋮

Patient Survey (1) ☆ 📁 hari1th.thyagarajan@gmail.com

File Edit View Insert Responses (47) Tools Add-ons Help All changes saved in Drive

↶ ↷ Edit questions Change theme 📄 View responses 🌐 View live form ⤴

After page 3 Continue to next page ⤴

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Public and Gentrif Ask

Question Title

Help Text

Question Type Multiple choice ▾ ☒ Go to page based on answer

☐ Yes × Go to page 6 (Screening Gentrified & Public) ⤴

☐ No × Go to page 8 (Non Gentrified & Public) ⤴

☐ Click to add option or Add "Other"


▸ Advanced settings

Done ☐ Required question

Add item ▾

After page 4 Continue to next page ⤴

Responses



Other Findings...

The amount of time needed to take public transportation does not influence one's decision to attend their health appointments

- ▶ 71 % of respondents said they would still go to their health center if sick despite distance and length of commute

People who took public transportation budgeted more time to get to health appointments than those who did not

- ▶ Average time budgeted for public transportation users: 60 minutes
- ▶ Average time budgeted for non-public transportation users: 43 minutes
 - ▶ This was despite people who drove often travelling a further distance than those who took public transit because they were out of the range of service for the MBTA

When people were late to or missed their appointments, it is primarily due to unpredictable transportation schedules

- ▶ *"I have the [MBTA] bus app and it will sometimes be way off from when the bus actually comes."*
- ▶ *"I use the [MBTA] app and sometimes it will say a bus is coming in 1 minute, but it actually comes in 5."*