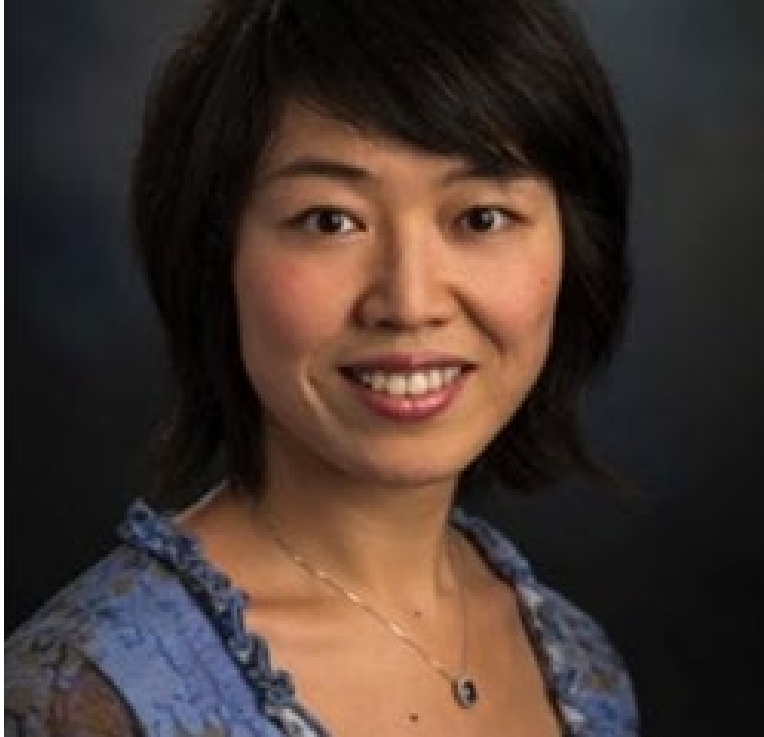


Can Subsidized Transportation Options Slow Diabetes Progression?

Strategies to Achieve Alignment, Collaboration and Synergy across Delivery and Financing Systems

Research-in-Progress Webinar
January 11, 2023
12pm ET

colorado school of
public health



Fei Li, PhD



Dr. Li is an Assistant Professor in the Urban Studies Institute. Her work explores how individuals and markets react to and interact with policy. She is broadly interested in contemporary urban issues related to housing, transportation, segregation, inequality, public health, and the social impacts of emerging technologies.



Christopher Wyczalkowski, PhD

Dr. Wyczalkowski is Director of Customer Insights at the Metropolitan Atlanta Rapid Transit Authority (MARTA). Chris is an urban policy scholar with research interests related to the interaction of society with the evolving urban environment. His current research agenda is focused on the effects of transportation systems on neighborhood change, particularly micromobility, and disaster recovery.





Renee Ogoun

Renee Ogoun has always had a passion for taking care of people. Currently, Renee serves as the Patient Navigator for the Food as Medicine Program. She started her career as a Nurse Assistant with over six years of experience. After graduating from Georgia State University in 2019 with a Bachelors in Public Health, she knew she wanted to continue to help people. She went on to become a Patient Navigator at Grady Memorial Hospital, a position designed to help connect patients to the right care in a timely manner. She loves advocating for her patients and will continue to do so for as long as she can.



Systems for Action

Systems and Services Research to Build a Culture of Health

Mobility Solutions to Better Health

Healthcare and Food Access under COVID-19

Fei Li, PhD, Assistant Professor, Georgia State University

Christopher Wyczalkowski, PhD, Director of Customer Insights, Metropolitan Atlanta
Rapid Transit Authority (MARTA)

Commentary: Renee Ogoun, Patient Navigator, Food As Medicine Partnership

Robert Wood Johnson Foundation

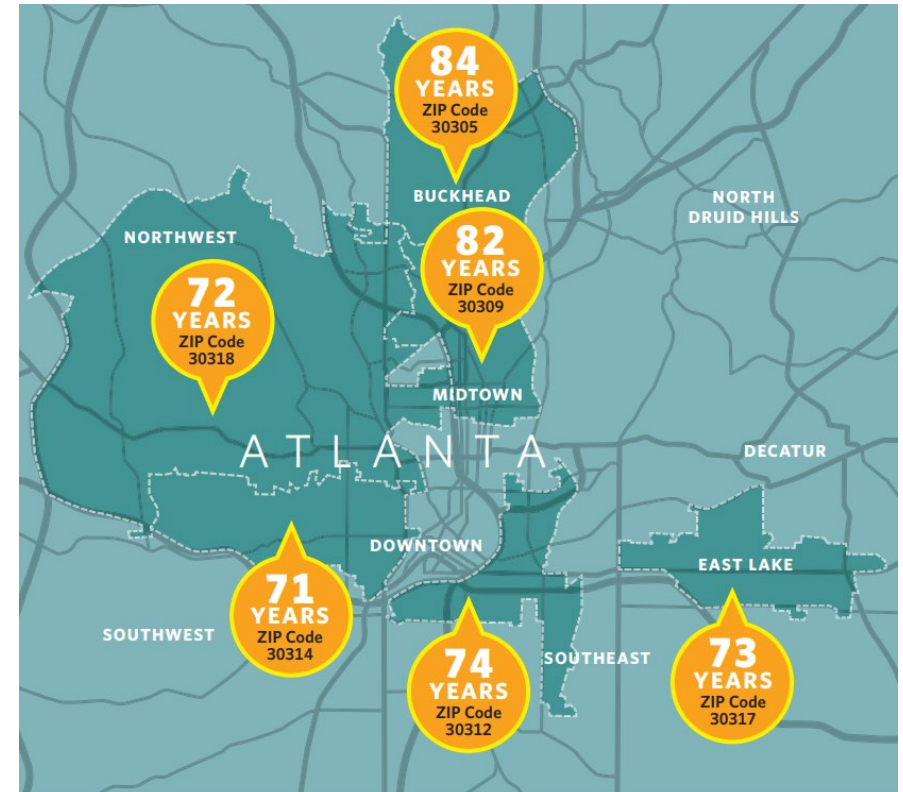
Summary

- We surveyed 257 patients with uncontrolled diabetes or hypertension who participated in a program that addresses food insecurity and dietary diseases from 2020 to 2022
- The study uses an experimental design to test the impacts of several mobility assistances on health over 12 months, but many participants were unable to stay in the program
- The surveys and in-depth interviews helped us gain insights into the mobility challenges these patients faced in the pandemic and how their travel behavior and healthcare utilization have been affected

Problems

- Mobility and accessibility as a social determinant of health (SDOH)
 - Access to medical care
 - Access to healthy food
 - Access to essential services
 - Independent living and social support
- Transportation inequalities could shape health-related behavior and lifestyles, which in turn contribute to health disparities

Life Expectancy at Birth in Atlanta, GA



Minyard, K., Lawler, K., Fuller, C., Wilson, M., & Henry, E. (2018). Reducing health disparities in Atlanta. *Stanford Social Innovation Review*, 14(2), 22–23. Data Source: [Mapping Life Expectancy](#), Center on Society and Health, Virginia Commonwealth University

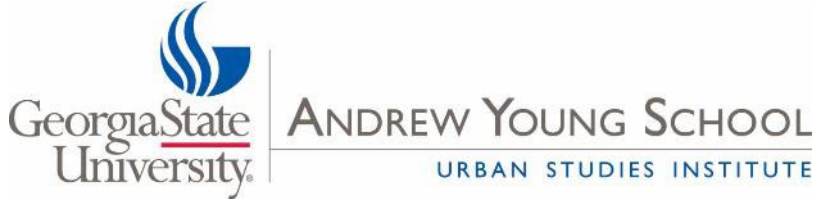
What We Know

- Transportation barriers can hinder healthcare utilization [1, 5, 7]
- Lack of transportation limits low-income households' access to healthy food [8, 10]
- Public transit services can be absent or inadequate in neighborhoods in need [4, 9]
- Limited mobility of senior, chronically ill individuals [6]
- The COVID-19 pandemic has exacerbated the mobility challenges for transit-dependent populations with chronic health conditions [2, 3]

Research Objectives

- Test the causal linkage between transportation barriers and health
 - Compare alternative solutions to enhance mobility
- Examine the inter-system gaps that impede access and utilization of health care and social services among low-income, chronically ill individuals
- How has travel behavior, including access to healthcare, changed during the COVID-19 pandemic for these patients? To what extent are these patients able to utilize information and communication technologies (ICTs), such as telehealth, to obtain medical care and other services?
 - What are the main challenges or barriers?

A Cross-Sector Partnership



Food as Medicine (FAM): Addressing Food Insecurity & Chronic Disease Management

Spearheaded by **Grady**, Food as Medicine is a collaborative program involving key partners including the **Atlanta Community Food Bank** and **Open Hand Atlanta**. The Food as Medicine Partnership will address both food insecurity and chronic disease among Grady's patients, with benefits that extend to children, families, visitors and staff.

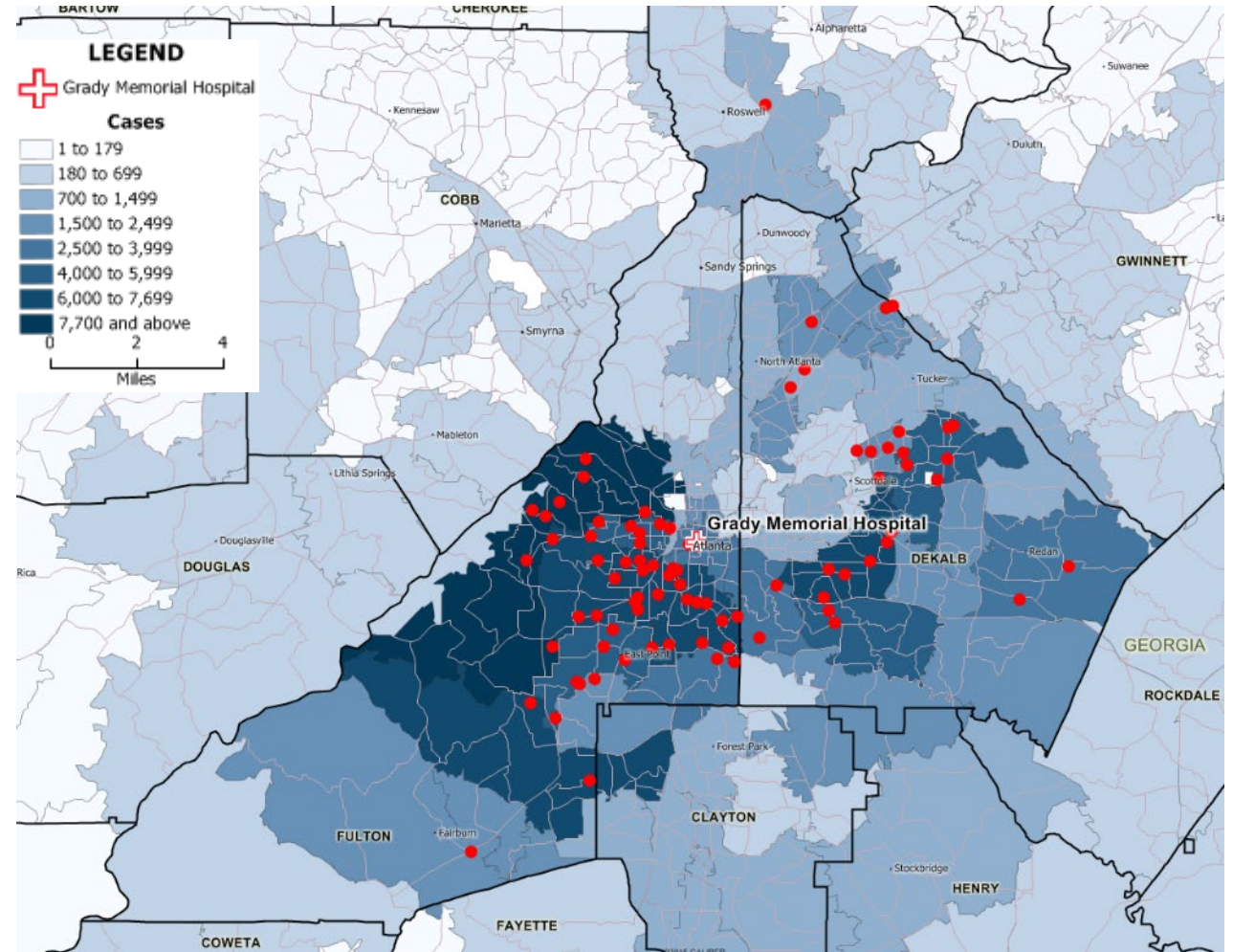


Food as Medicine (FAM)

- Biweekly food pickup (plant-based groceries)
- Cooking and nutrition classes every three months
- Up to four three-month episodes (maximum one-year participation)
- Starting in August 2020, FAM has enrolled over 1,000 Grady patients with diet-related chronic health conditions, mostly uncontrolled diabetes and hypertension.

Target Community

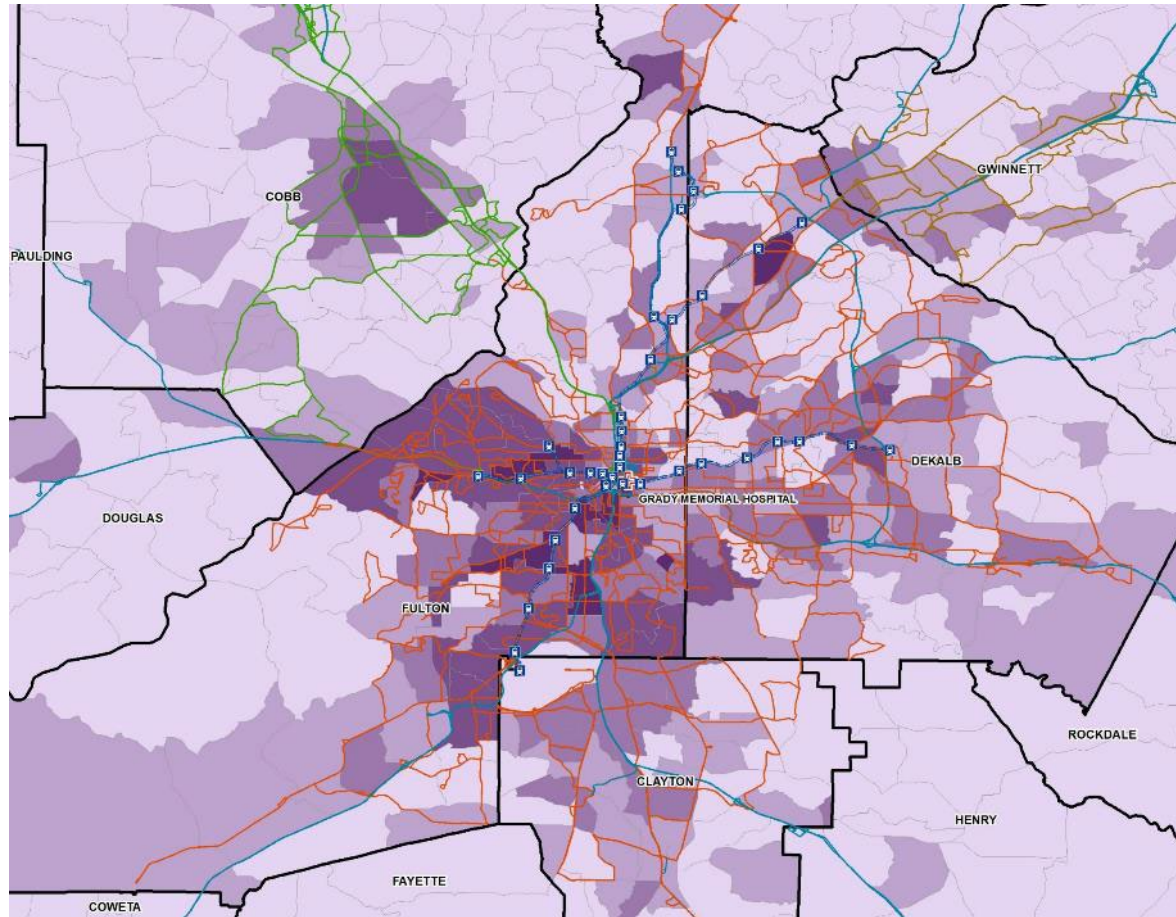
- Approximately 80 percent of Grady patients reside in Fulton and DeKalb Counties
- Approximately 60 percent of these patients are uninsured or underinsured
- Many of these patients live in communities defined by the CDC as vulnerable to health problems caused by external stresses (homelessness, etc.)
- High prevalence of chronic diseases (diabetes, hypertension, etc.) that also correlate to areas with high social needs



● Census Tract in Fulton and DeKalb counties with Social Vulnerability Index (SVI) score > 0.8 (top 20% most vulnerable census tracts in GA)

Source: Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program. Social Vulnerability Index 2016 Database Georgia. [data-and-tools-download.html](https://www.cdc.gov/geospatial/atsdr/geospatial-research-analysis-and-services-program/social-vulnerability-index-2016-database-georgia/download.html). Accessed on March 29, 2019.

Public Transit Access



Source: Easy Analytic Software, Inc. (EASI) - Census Database, Enhanced Master Database.



Methodology

- Recruit FAM participants with transportation challenges
- Randomized mobility assistance for 12 months
 - Public transit rides (10 rides per month)
 - Cash subsidies (\$25 per month)
 - Mobility counseling (Solution-Focused Therapy, or SFT)
- Surveys and in-depth interviews for a subset of participants
- Baseline survey includes pre-COVID behaviors

Participants

	Entire FAM Population	GSU Study
<i>N</i>	1,120	257
Black or African American	93%	98%
Female	61%	63%
Average age	56.0	56.2
Food Stamps	53%	62%
SSI or SSDI	42%	48%
Medicaid	12%	16%
Medicare	14%	13%
Self pay	30%	28%
Experienced homelessness in the past 12 months	21%	26%

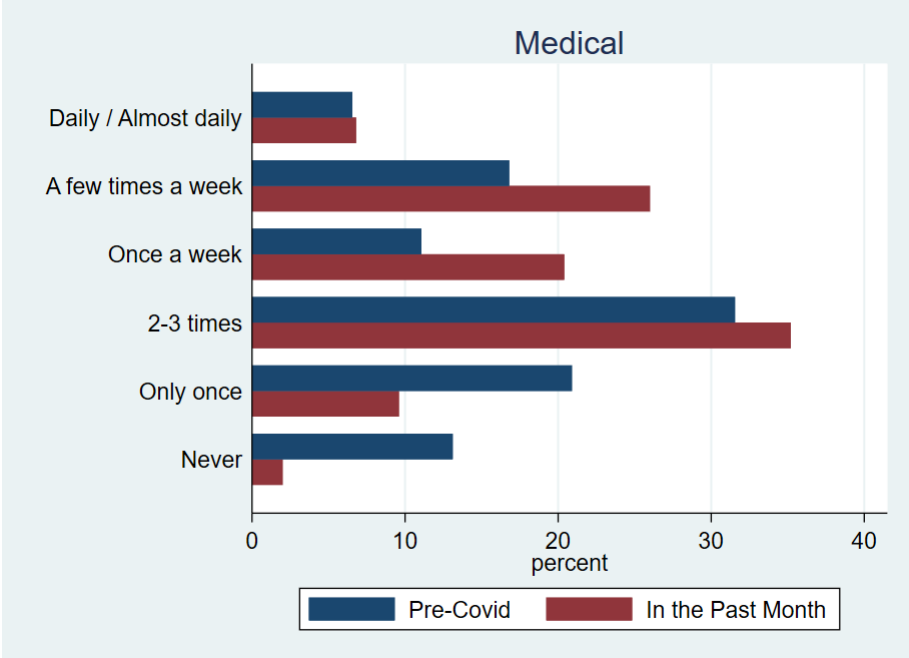
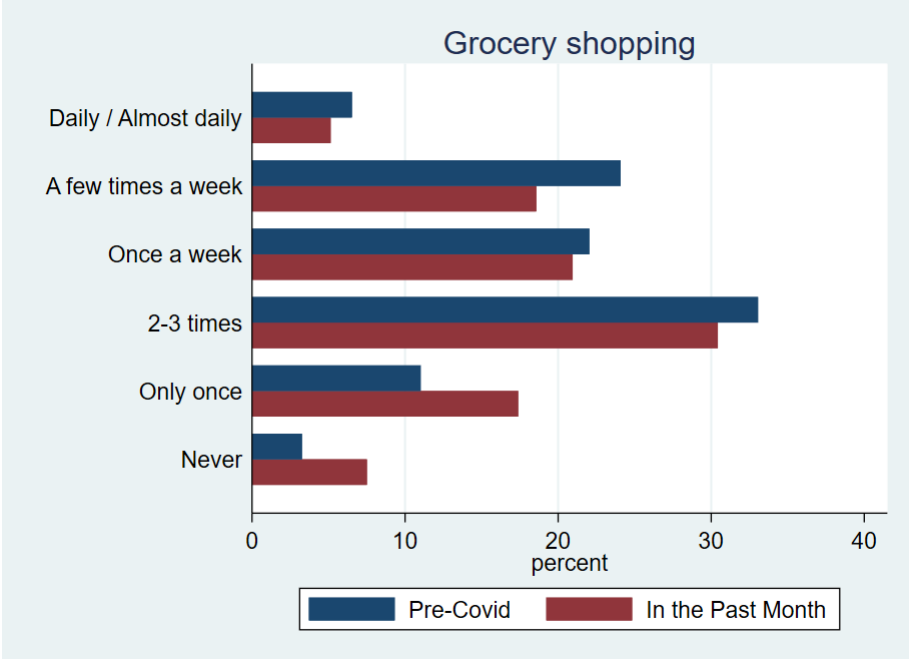
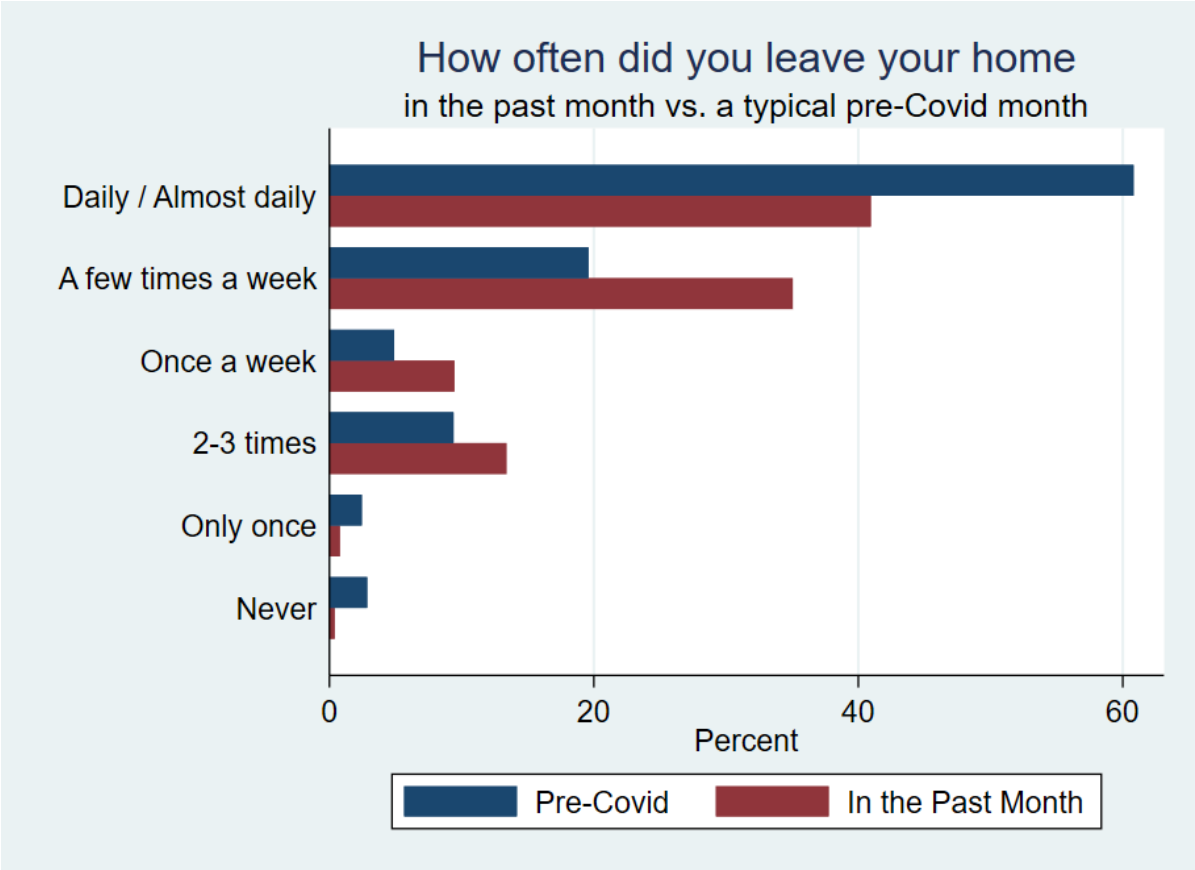
Participants

	Entire FAM Population	GSU Study
Average BMI	32.4	33.1
Average A1C	8.9	9.0
Stage II Hypertension	61%	56%
# days unwell physically in the past 30 days	10.4	11.8
# days unwell mentally in the past 30 days	8.3	10.3
Self assessed health as "Fair" or "Poor"	64%	70%

Participation & Accessibility

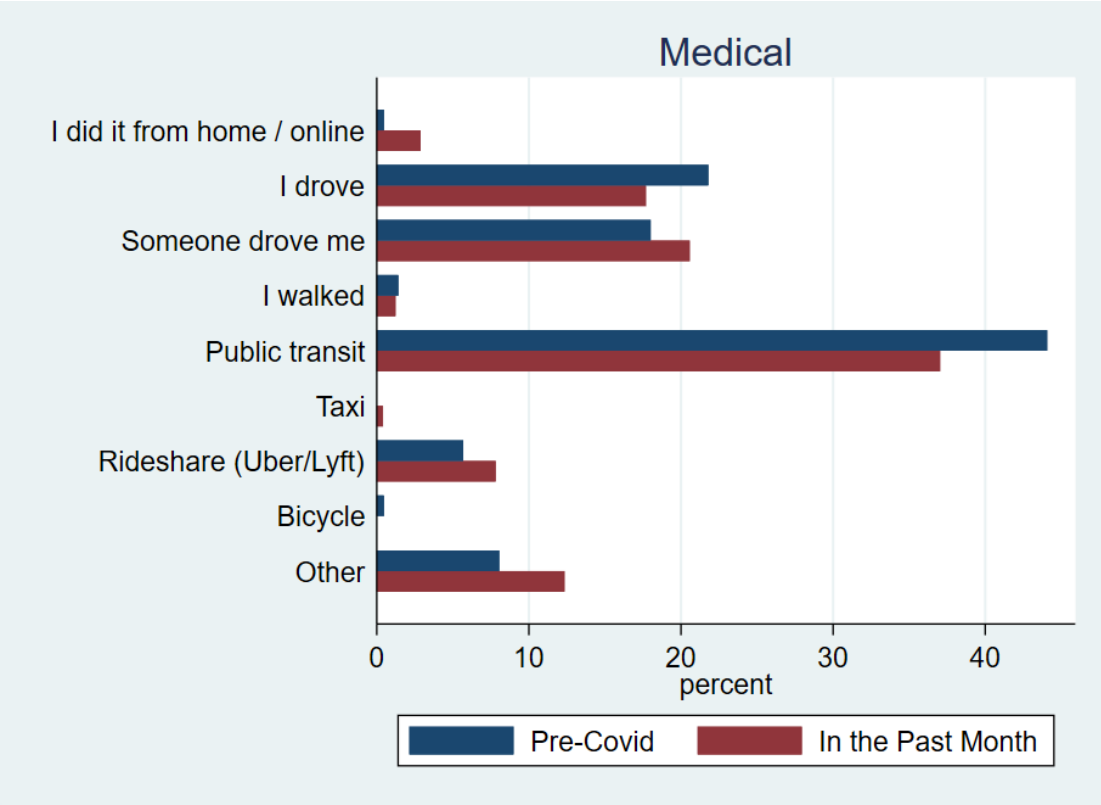
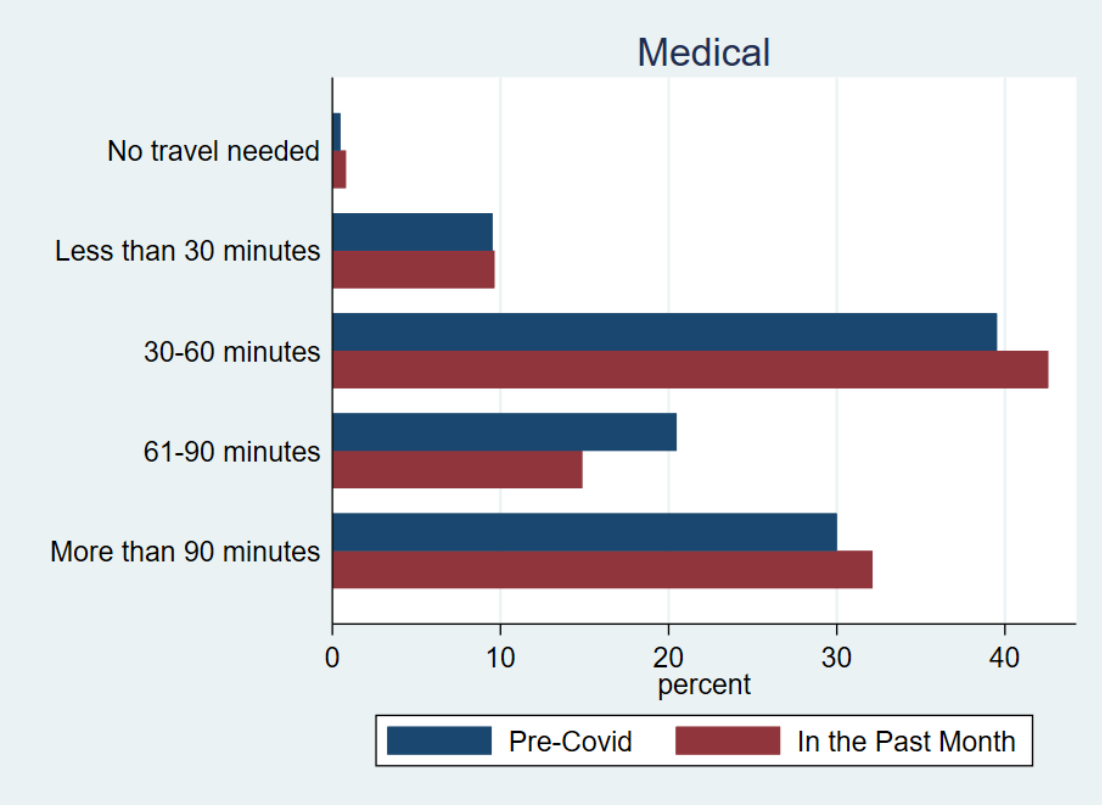
			GSU Study	
Among those enrolled before November 2021	Entire FAM Population	GSU Study	<i>N</i>	257
<i>N</i>	532	143	Do not have a car	50.0%
FAM visits	11.3	15.6	Cannot drive	35.8%
Doctor visits	0.7	0.9	Can only drive sometimes (depending on health)	8.3%
Virtual visits	0.3	0.4	No Internet access at home	39.9%
			No Internet access on a mobile device	18.3%

Travel Behavior



Source: Baseline survey (N = 257)

Travel Time and Mode

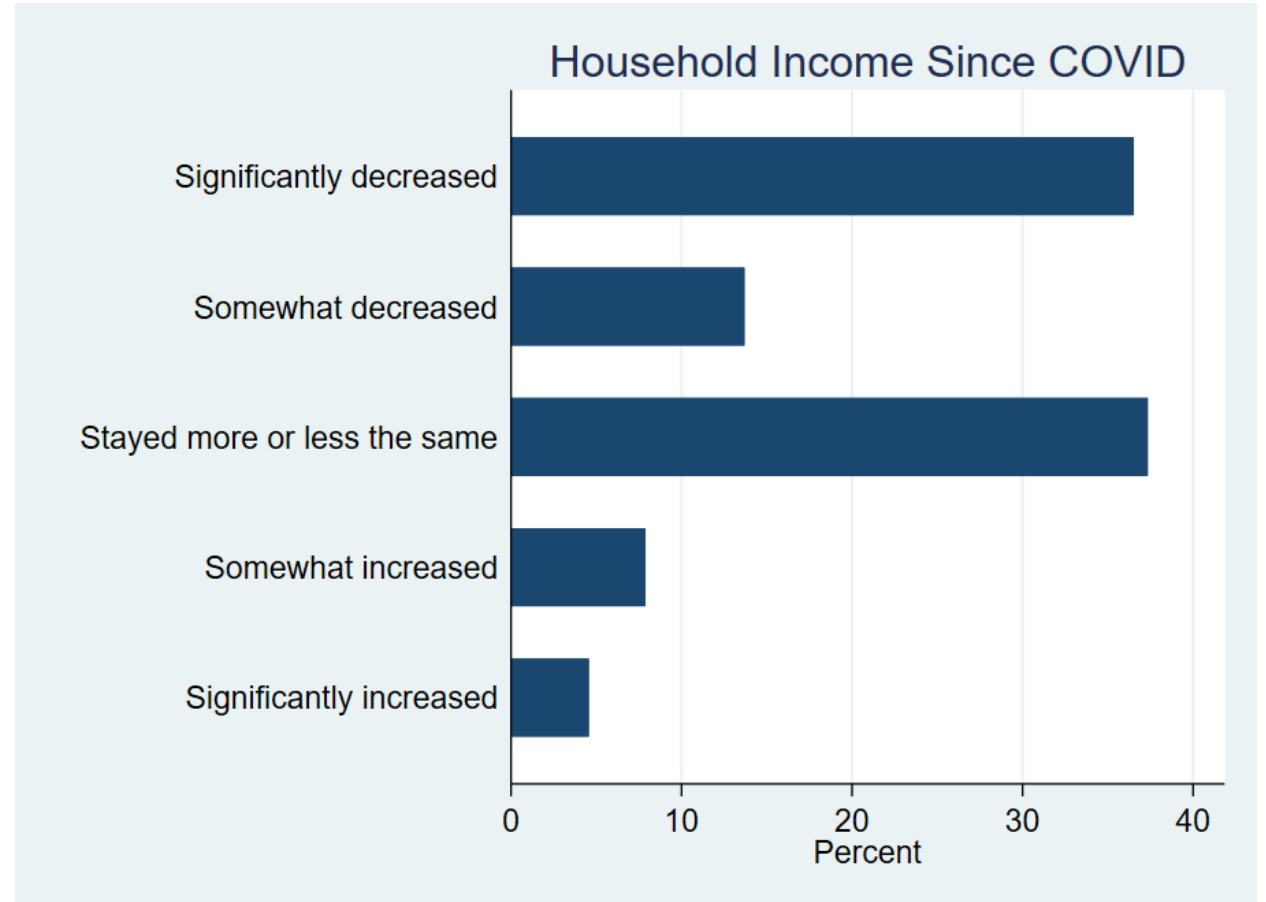


Source: Baseline survey (N = 257)

Financial Impacts

- 29.5% of the participants (N = 70) reported having been unemployed since the pandemic started.

Source: Baseline survey (N = 257)



Getting Around

➤ Planning ahead

- *“Due to the situation I’m in, the stroke and high diabetes. A typical day with me, I'd be nausea and I'd be sleepy, tired a lot time. **If I have something to do that day, I have to do it the day before, make plan.** I can't just go, You tell me come in an hour, I can't get up because **it take a long time** to dress and to get my leg right, and get my walk on so I can be able to go somebody to help me bathe.” (0075)*
- *“The way I make my decisions is prior, like the night before, or I may just jot down a note to myself, this needs to be done. I keep an agenda, an appointment book of things that I know I need to do. **What's most important to me, I'll make sure that I double-check the dates and times if I need to schedule any type of transportation for me to get to those appointments or whatever.** If I'm having appointments. I had one earlier that came up this week, it was an emergency-type appointment. I have arthritis in my feet-- one of my foot, not feet. They made an appointment for me. I had to set up the transportation and that worked out well.” (0386)*

Source: In-depth interviews (N = 10)

Getting Around

➤ Lack of transportation

- *“Lately, since I've been sick, don't sleep well at night. When I do finally wake up, I'm in a lot of pain. Car's broken down now, so I'm not able to get to the store and get the food I need. I have to either beg somebody or ask somebody or go on their time, and it's cost a lot because now, since I don't have no transportation, it's like you have to pay for everything. Then, when you can't get to place to get food, you have to try to order food, and that's expensive. Right now, that's what I've been dealing with, and that's been very hard.” (0399)*
- *“I try not to say nothing negative against the **MARTA Mobility** (a door-to-door service for riders with disabilities provided by the local transit agency, **MARTA**), but I keep it real. I keep it real, you know. Things just don't go accordingly. I don't have no transportation. My daughter is my only transportation and she was working now, thank you, Jesus. And I have to rely on them [MARTA Mobility].” (0400)*

Source: In-depth interviews (N = 10)

Getting Around

➤ Financial barriers

- *“The cost of a MARTA pass is very expensive. Even if you did a half fare... If I put 40 trips on – I don’t know how long that will last. So I’m thinking...let’s say every...I don’t think it’ll last three months, 40 trips. But we can say that. 4 times 3 is 12, let’s say 40 trips three times a year...[T]hat’s \$120 a year that I can get around.” (0386)*
- *“[F]ind somebody that's going to charge me reasonably because I don't have what they call a Uber account, or anything. I don't have a credit card to make a Uber account or anything. If I do, I have somebody else pay for it, and then I pay them for the Uber. If they come get me, they either have a big truck or something, so they gonna try to charge me, especially with the gas thing going on. It's just very, very frustrating, so I don't go anywhere.” (0399)*

Getting Around

- Timeliness or reliability of service
 - (Regarding **MARTA Mobility**) *“The challenging is like when I call for MARTA Mobility, and then I tell them a time that I need to get picked up from Grady. Then if I don't get picked up, they'll put me on will call, and that's a challenge because a lot of times I have to wait for two hours or an hour, and it's like **I just want to get home.**” (0351)*
 - *“They need to all have a communication. They lack communication. (**Interviewer**: A way for you to communicate with them?) No, for them to communicate with the driver. They'll tell me a time and then they'll tell the driver, the driver will just get to work or they'll call the driver in to come get you. They say, ‘Well, I didn't know until just now.’ I'm like, ‘That's because there's no communication over there.’ We'll call them, we'll tell them one thing. They'll tell us something that we have to call back. It's like they need communication because there's no communication. **This is customer service. You're dealing with elderly people. There's really no communication between the offices, the dispatch, and the drivers.**” (0351)*

Source: In-depth interviews (N = 10)

Getting Around

- Timeliness or reliability of service
 - (Regarding **Common Courtesy**, a senior transportation program in Fulton County) *“It's a dollar each way and they come right away. They come when they say they're going to come. Unlike my insurance transportation, I've been having problems with them. **They've been making me miss a couple of appointments.**” (0386)*
 - (Regarding **MARTA Mobility**) *“I have good days and bad days. The good days, I can make a doctor's appointment and get there on time. The bad days is that I can make an appointment, and **normally, they're either 20 minutes, maybe 30 minutes late or they don't show at all.** Then you have to get on the callback. You call back, and they will eventually send somebody before six o'clock. Anything after six o'clock, you can forget it...That's the only thing that's been like-- because everybody's not going back to work right now. So they have a shortage of help, which I do understand that.” (0400)*

Source: In-depth interviews (N = 10)

Using Public Transit

- Mobility constraints and accessibility issues
 - (When **MARTA Mobility** does not show up and she has to use regular bus or train) *“I'm on with a walker and it's hard to catch a train and a bus and another bus to get home...Catching the bus and the train is like you got to go down some steps and I don't do steps. I can't do steps no more. Half of the time, the elevators at the train station are not working. Now you got to figure out how you going to maneuver yourself around with your walker or your cane or whatever you have. And you going to miss the bus and the train trying to pursue all of this. God forbid, if it's raining, that's another bad situation.” (0400)*
 - *“[W]e've been real blessed because they finally put benches out there for us to sit. The bus let me out right in front of my door, but I got to cross the street...That's a dangerous street, and the walker.” (0400)*

Using Public Transit

- COVID fears
 - *“I'm not supposed to be around a whole bunch of people because of my immune system...Too many people on the bus...Somebody told me about Medicaid, to be able to pay for transportation back and forth to the hospital. But the ones that I checked out, you have to ride with people in the van. At that time, they were telling me they didn't have no personal, like just one person in a car. They said that going that far, they take them in groups or something like that, and so I declined on that.” (0399)*
 - *“In the beginning I was a little scared of it, but now I bring everything I need, my wipes and I try to wear my mask constantly and Lysol spray. You can't really worry about it. This is the norm now. You got to deal with it or it's going to drive you crazy.” (0400)*

Travel Experience

- Enjoying the trip
 - *“I would just get on the elevator and go up and walk across the pathway, what they call it, the bridge to the train station. No. It was very nice walk. I missed that. You know what I mean? (Interviewer: It's something you liked doing.) Yes, because **I would thank God that I'm able to walk and be in the right mind and I was going somewhere, that meant something.**” (0070)*
 - *“Some days I feel pretty good. I feel pretty good and you get to meet people because most of the time I'm in the house, I don't really get to talk to people on a regular basis and you get to travel around Atlanta, it's like a little tour. You know me, I try to take everything in a positive way. **You see all the different new places that they're building apartments and everything, all over Atlanta. It's good. It's nice.**” (0400)*

Obtaining Medical Care

- Provider changes during the pandemic
 - *“(Before the pandemic) you could just go to the doctor whenever you please, but now you got to make an appointment. I know you had to make appointments anyway, but it's harder because some of your doctors are even sick and they're not there no more. Now you got to search for another doctor, the one that can deal with your situation.” (0400)*
 - *“I’ve been able to continue, but people keep leaving Grady. The doctors keep leaving. So I've had like three, I guess you could call them psychs, psychiatrists or whatever to leave. They gone. So then it's like you're dealing with somebody else, and you gotta start explaining all over again and talking to somebody all over again and it's a lot.” (0659)*
 - *“That's when my doctor ended up leaving, my primary doctor, and he had told me that he could get me in a Covid thing. I was actually gonna, but he gone. I couldn't get back in touch with him after he left to see if could I get in the thing he was talking about.” (0659)*

Source: In-depth interviews (N = 10)

Obtaining Medical Care

➤ Scheduling

- *“What I tried to do is **set all my doctor's appointment for the same day so I know ima be there all day long**. It's like when you were calling me, I'm like, can we do it on the 25th? Because I know I can't have a way to come back and forth.” (0399)*
- *“Scheduling is horrible. Sometimes you call and it's like three months waiting, it's like two months waiting. Then after you've waited for the two months to get scheduled for that doctor, then they call and tell you they ain't coming in. Or you're going to have to call and you reschedule. Wait a minute, I should already be put on the books. I done waited two months for this visit.” (0659)*

Participation in FAM

- Reasons for leaving the program
 - *“Because I got sick and didn't have no transportation to get there. I been calling but they haven't called me back to let me know if I'm still in the program or not.” (0399)*
 - *“I don't know, maybe... because I liked that program. I really liked that. The fresh vegetables. Oh, my God. Yes. They were healthy, big cabbages, big potatoes, sweet potatoes, and its just me. I just had a problem getting them home... The bags that they give you. I have like four of them on the bus.” (0659)*
 - *“I stopped coming because I no longer had the symptoms of [diabetes]... my blood sugar went all the way back to normal and I didn't have to take the medications anymore. I did implement the healthy eating patterns and the exercise and everything into my lifestyle. So I really didn't feel that I really had to come back.” (0030)*

Doing Things Online

➤ Telemedicine

- *“I tried that one. I don't like that. (**Interviewer:** You don't like the virtual visits?) I don't like that virtual. I do not...Then on my line with the doctor, like I told you, I go to some other community outlet stuff. We talk about the medical gaslighting, and a lot of us Black womens didn't know about that. I knew about the gaslighting when domestic violence in Wisconsin. When I came down here, it ain't domestic violence, is medical gaslighting. I said, hm. And so I started joining that, and we do that on zoom and stuff like that. People say every time I go to the doctor, she say this and that. She gonna tell me what I got and what I do not got.” (0075)*
- *“I'm not a computer-savvy person, so a lot of time the challenge was the phone, the virtual thing, and then going into the system to get your stuff together. **I was just never comfortable with computers and stuff like that, so I'm still learning.**” (0186)*

Source: In-depth interviews (N = 10)

Doing Things Online

➤ Telemedicine

- *“I think I did one, not virtual. We just did it over the phone. They called me. When the pandemic was going, I had a couple of doctor appointments, they just called me over the telephone and said, “Go in and take your--” What is it called?... When they do the work of the lab, go to the lab. Get your blood drawn and your urine. Then they’ll call me. That’s it.” (0399)*
- *“It was okay because they was calling, checking on me and I really appreciated that because it's, some days I didn't feel like coming down here, coming to Grady. And it worked pretty good. It worked pretty good.” (0400)*
- *“I've done them, but dealing with the issues that I'm dealing with its really nothing that can be virtual. You talking to the doctor, he really need to see. You know like I been had a lot of breakouts and stuff, they hadn't been able to figure out. They've tried to send me to dermatologists which have rescheduled about five times. It's really not something that you can just do virtual.” (0659)*

Doing Things Online

- Online shopping or grocery deliveries
 - *“I have the thing on my phone but we can't-- when it gets to the part to try to order food or put in a password, it won't let me do it. You know what I'm saying? I got the app on my phone. I got that, and the only one that I can order from is Little Caesars because one is cheaper than every place else and I can't eat that kind of food.” (0399)*
 - *“I don't know what Amazon is. See, I got all the apps on my phone. I loaded them down and I can't get to use it... Had somebody come to the house, but the thing is I didn't know him so well. I didn't know them so well and I wasn't about to give them my card information. You know what I'm saying? Because I don't know you that good.” (0399)*
 - *“I don't really like shopping online because that's kinda **you taking your hands, you with your risk, putting your information out.** (Interviewer: Credit cards?) Credit cards, any kind of thing like that because people they hacking into everything just about.” (0400)*

Source: In-depth interviews (N = 10)

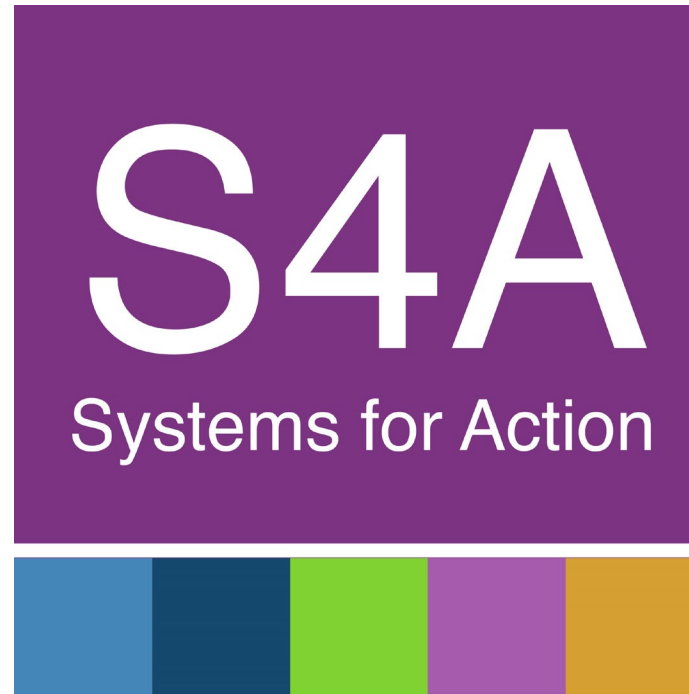
Conclusion & Next Steps

- Despite the inconvenience, COVID disruptions and health risks, public transit remains an important means to get around
- Transportation can be a significant challenge in obtaining medical care and participating in Food as Medicine (FAM)
- Limited knowledge or trust of and access to technologies make telemedicine and other virtual services hard to use
- We will continue to follow current participants in FAM and conduct more in-depth interviews with those who have left or completed the program

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Questions?



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One will be emailed to you.

**Jan. 25
12pm ET**

**Insurer Contributions to Core Population
Health Capabilities & Diabetes-Related
Preventable Hospitalizations**

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Acknowledgements

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