

“No One Should Feel Like They’re Unsafe”

Mobility Justice Photovoice as a Youth Advocacy Tool for Equitable Community Mobility

Evalynn Fae T. Romano, MPH, MSW; Barbara Baquero, PhD, MPH; Olivia Hicks, BAc; Victoria A. Gardner, EdD, MEd; KL Shannon; Katherine D. Hoerster, PhD, MPH

Mobility is an often overlooked social determinant of health that broadly affects people of color’s health. This study aimed to examine personal and community mobility challenges and opportunities among youth of color and partner to advance equitable community mobility. We conducted a community-based participatory research photovoice study using mobility justice principles from November 2020 to May 2021 with 10 youth of color from South Seattle, Washington. We conducted thematic content analysis of verbatim transcripts. Youth recommended infrastructure changes and free transit to facilitate safe, accessible mobility. Youth reported feeling vulnerable riding public transit alongside people experiencing mental health issues, while recognizing the dangers police can bring to people with mental health challenges and/or communities of color. They emphasized the importance of youth voice and intergenerational community discussions to inform policy making. We coorganized an online forum with youth to exchange ideas for advancing equitable mobility with their community and city leaders. Youth expressed feeling empowered and deepening dedication to mobility justice. Leaders should implement policy and infrastructure changes to enhance equitable mobility by incorporating youth and mobility justice principles in decision-making processes, pay youth for their time, employ facilitators of color, and offer technology support.

Key words: equity, health disparities, mobility, photovoice, youth

Author Affiliations: Department of Psychiatry and Behavioral Sciences, University of Washington, Seattle, Washington (Mss Romano and Hicks and Dr Hoerster); Department of Health Systems and Population Health, School of Public Health, University of Washington, Seattle, Washington (Drs Baquero, Gardner, and Hoerster); Seattle Neighborhood Greenways, Seattle, Washington (Ms Shannon); VA Puget Sound Healthcare System, Seattle Division, Mental Health Service, Seattle, Washington (Dr Hoerster); and VA Puget Sound Healthcare System, Seattle Division, Health Services Research and Development, Seattle, Washington (Dr Hoerster).

The authors thank the youth participants, their community partners, and the Beacon Hill community. We also thank our PATHSS collaborators for their broad contributions to this project: Beacon Hill Safe Streets (Robert Getch), Seattle Department of Transportation (Lisa Harrison and Serena Lehman), and the University of Washington (Drs Rachel Berney, Crystal Hall, Stephen Mooney, Dori Rosenberg, and Brian Saelens). This work was supported by the University of Washington Population Health Initiative pilot award.

The authors declare no conflict of interest.

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

Correspondence: Evalynn Fae T. Romano, MPH, MSW, 1959 NE Pacific St, Seattle, WA 98195 (evalynn.romano@gmail.com).

Copyright © 2022 The Authors. Published by Wolters Kluwer Health, Inc.

DOI: 10.1097/FCH.0000000000000344

SYSTEMIC RACISM FUELS social determinants of health (SDOH), broadly affecting people of color’s health.¹ Social determinants of health are socially constructed systems that promote or constrain health and are connected to racial health disparities.² An often overlooked SDOH is access to mobility: being able to go from place to place to meet daily needs. Inequitable mobility hinders accessing health care, employment, education, exercise, and nutritious food, thereby affecting physical and mental health, relationships, and economic security.^{1,3-9} Infrastructure and policies to improve mobility often advantage the privileged,^{1,3-9} and policies such as helmet laws¹⁰ and transit enforcement¹¹⁻¹³ are disproportionately used against people of color. Residential segregation that separates racial/ethnic groups within a geographic area creates health disparities and inequitable access to safe and quality sidewalks, bike-ways, public transportation routes, green space, and other built environment amenities.^{1,14-17} To achieve equitable mobility, people of color must be centered.

Using a mobility justice lens and framework is well suited to guide people of color-centered work seeking to advance equitable mobility. Mobility justice framing serves as a guide for examining structural and intersectional barriers and solutions to advance freedom to move in public spaces and freedom from displacement.^{3,4,6,8,9} Few versions of the mobility justice framework exist. We selected

the mobility justice framework by People for Mobility Justice (PMJ) because of PMJ's dedication to community-based approaches in addressing the mobility needs of underserved communities.¹⁸ In August 2015, Los Angeles launched a Vision Zero initiative that aimed to reduce citywide pedestrian and traffic fatalities.¹⁹ People for Mobility Justice created their mobility justice framework in response, due to concerns of racial profiling and police violence on communities of color.⁴

The mobility justice framework addresses the root causes of mobility challenges that individuals face because of systemic inequities and emphasizes the need to recognize and implement community knowledge in decision-making processes. The framework has been used to guide program and policy evaluation and advocacy and research.^{3,4,6,9,20} For example, guided by mobility justice principles, in 2022 Seattle officials overturned a regulation that required cyclists to wear helmets because the law disproportionately affected Black cyclists who were nearly 4 times as likely to be cited as white cyclists.²⁰ Figure 1 outlines the key 5 dimensions of PMJ's mobility justice framework: dignify, decriminalize, decongest, decolonize, and dream.⁴

Low-income youth and youth of color face transportation inequities, particularly in active transportation (ie, walking, biking, wheelchair travel, and public transit), which can decrease physical activity and negatively impact health.¹⁴⁻¹⁷ This fuels health disparities, such as disproportionately high body mass index among Hispanic, Black, and low-to-middle socioeconomic status youth.²¹ Examples of youth active transportation barriers include distance, parental attitudes, perceptions of safety and racial discrimination, and lack of

personal or public transportation access.^{14-17,22-29} Youth need equitable access to mobility but are often overlooked in research and policy making.

Community-based participatory research (CBPR) can be utilized to center youth perspectives to understand barriers to youth mobility.³⁰ Photovoice, a common CBPR methodology, uses community photography and storytelling to collectively set priorities and advocate for change.³¹⁻³³ Only one of the studies documenting transportation inequity among youth described previously used CBPR.²⁹ Furthermore, none of those studies used a mobility justice framework.

To address these gaps, we conducted a CBPR photovoice study guided by mobility justice principles to identify personal and community mobility challenges and opportunities among youth of color and ways to partner with youth to advance equitable community mobility. Youth were from the Beacon Hill neighborhood, one of Seattle's most diverse yet increasingly gentrified neighborhoods. Nearly three-quarters of Beacon Hill residents self-identify as Asian (45.5%), Black (11.9%), Hispanic (9.6%), Mixed (5.1%), Native Hawaiian/Pacific Islander (0.4%), or American Indian/Alaska Native (0.1%).³⁴ Youth younger than 18 years make up approximately 18.9% of the neighborhood's population compared with 15% citywide.³⁴ More than one-quarter (27.1%) of residents in Beacon Hill and surrounding areas hold limited English proficiency, more than twice the county average.³⁵ The neighborhood is also considered a high-poverty area, with 36.5% of residents living in or near poverty levels.³⁵ Beacon Hill is currently the focus of several Seattle Department of Transportation (SDOT) mobility improvement projects.³⁶ Thus, situating

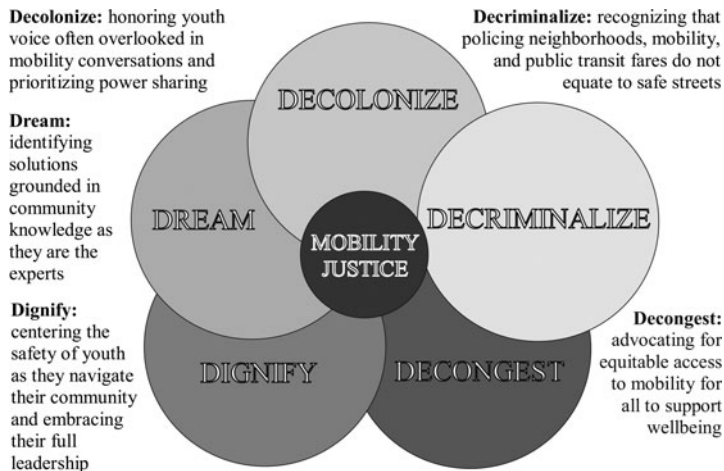


Figure 1. The 5 Ds of Mobility Justice for Youth. Adapted from the mobility justice conceptual framework model from People for Mobility Justice (<https://www.peopleformobilityjustice.org/>).

this project there was optimal for understanding key mobility priorities among youth and translate findings into action. The study provides insights specific to Beacon Hill, while also broadly informing transportation-related changes and youth community engagement.

METHODS

The current photovoice project was part of a larger CBPR, mixed-methods research project: the Participatory Active Transportation for Health in South Seattle (PATHSS) Study, which aimed to identify mobility challenges, opportunities, and improvements to support equitable mobility in the Beacon Hill neighborhood.³⁷ This project was developed collaboratively as part of a community-academic-policy partnership, comprising researchers, 2 SDOT leaders, and 2 community-led organizations that focus on making neighborhood transportation safe and accessible.^{38,39} Study team members met with community partners at least monthly and with SDOT partners quarterly to obtain community and policy partner input into all aspects of the study process to ensure that our research questions would be of value to decision makers. Although their input was deeply valuable, organizational/policy partners did not have control over our scientific aims or process, nor did they dictate which findings we shared and how. After review of all study materials and plans, the University of Washington institutional review board of human subjects deemed this study as not involving “human subjects.” Participants were compensated \$15 per hour for all activities. A secure audio/videoconferencing platform was used for all activities due to public health guidance during the SARS-CoV-2 pandemic. An iPod Touch and hot spot would have been made available to youth without access to technology to take photographs and join virtual meetings.

Participant recruitment

Participants were recruited through snowball sampling; outreach to schools and community-based organizations; social media; and flyers. Purposive and quota sampling was used to ensure a diverse sample with respect to age, identified gender, race/ethnicity, transportation modes, and relationship to the neighborhood. Inclusion criteria were (1) 13 to 18 years of age, and (2) living, working, going to school, using services, or traveling through Beacon Hill. Because participants took photographs each week in the neighborhood, youth planning to leave for 1 week or longer during the study were excluded. Three youth were excluded because of planned extended time away ($n = 1$), no neighbor-

hood relationship ($n = 1$), and unclear commitment to study activities ($n = 1$).

Study information and program commitments were reviewed with eligible and interested youth using an information statement. Youth verbal assent was obtained and they were asked to share the study information sheet with parents/guardians. We conducted an interviewer-administered survey of basic demographic and health questions. A total of 10 youth participated.

Data collection

Youth participated in six 90- to 120-minute group photovoice sessions in November and December 2020. Group discussions were facilitated by the first and second authors, both identifying as people of color. Sessions were audio-recorded and transcribed verbatim.

The first session covered study protocols, group agreements, photography ethics, and safety. In each subsequent session, youth shared photographs they took to illuminate their lived experiences, guided by a mobility justice-informed photography “mission” for each session. Each mission asked about *getting around the Beacon Hill neighborhood*: (1) What are your general experiences ...? (2) What makes it difficult or hard ...? (3) What makes you feel unsafe ...? (4) How do your different identities (eg, race/ethnicity, gender, class, age, ability, etc) affect ...? (5) What do you love about ...? Youth determined the latter mission collectively.

During sessions, each youth briefly described at least 1 photograph and the photograph’s relevance to the week’s mission and then the group selected 1 photograph to focus on for discussion. For the selected photograph, descriptions were guided by the **SHOWED** process (what do you See here? What is Happening? How does it relate to Our lives? Why does this situation exist? How can we Empower/Educate to address it? What can we Do about it?).³¹ The **SHOWED** process was completed for sessions 2 to 4. However, **SHOWED** was not utilized for the last 2 sessions because the study team determined that it may have been limiting group discussion. For the final 2 sessions, each youth shared their photographs and the group discussed how each photograph related to their experiences, which enhanced group discussion by allowing more time for each youth to share.

Dissemination methods

Following the 6 photovoice sessions, we maintained ongoing communication with the youth and met bimonthly to co-organize a dissemination and advocacy plan, including developing an online community forum. We met in 2 separate

work groups, 1 focused on developing audio/visual dissemination products and the other focused on developing a youth panel for the community forum. All youth provided input on outreach methods and forum structure. Work group meetings were 1-hour, paid, and scheduled during times that worked best for youth, generally in the evening. Phone calls were offered to individuals who missed a meeting due to schedule. The community forum was held in May 2021 and offered live captioning and Spanish interpretation. The 73 attendees included community members, transportation and city officials, including SDOT representatives, and media representatives. The event covered methods and goals of the study; an overview of mobility justice; youth photography and themes; mobility experiences and recommendations from community leader and member interviews; and a youth video and panel. The short video, created by the audio/visual group, featured youth voice, writing, photographs, and footage emphasizing the importance of safety and their vision for equitable community mobility. The youth panel group shared the intersectionality of personal and community identities with mobility and voiced similar themes of safety and equity. (We received caregiver permission for the youth panelists to participate in this way.) The forum ended with facilitated breakout rooms for attendees to discuss reactions and next steps. We sent an anonymous survey following the event to assess satisfaction with the event, takeaways, and elicit suggestions for future dissemination. Twenty-three attendees completed the survey.

Following the forum, we continued to create dissemination products to share with community members and city leaders. This included an infographic that reflected community knowledge collected throughout the study.⁴⁰ In addition, we published an op-ed with 3 youth study participants that called for improved transit access.⁴¹ We disseminated both the infographic and op-ed in emails to more than 100 partners and leaders, including a prepopulated Web-based form email to city government and transportation leaders, advocating for key policy and infrastructure changes. In addition to these dissemination products, we continued to consult with community-led organization and SDOT partners to interpret findings, ensure effective dissemination, and inform next steps.

Data analysis

We conducted thematic content analysis using inductive and deductive approaches⁴² to analyze verbatim transcripts from photovoice sessions. We categorized youth perceptions using the 5 domains of the mobility justice framework (Figure 1).⁴

Community-based participatory research emphasizes community member inclusion throughout the research process, so a South Seattle resident (undergraduate student) was hired as the second coder. The first and third authors read each transcript to become familiar with the content. Each coder independently performed open coding using Microsoft Word by highlighting and tagging text to identify potential codes. After open coding 3 transcripts, coders decided on preliminary codes to build an initial codebook and coded remaining transcripts (and recoded the first half of the transcripts) using these codes and adding new codes if the data did not fit an existing code. Codes were added or removed until a stable set of codes was reached. The codebook was shared with the second and senior authors and 1 youth photovoice participant for feedback at several points in the process. Qualitative coding software ATLAS.ti (Version 8.4.26.0; ATLAS.ti GmbH; Berlin, Germany) was used for further analysis. Coders held regular meetings to arrive at consensus judgments through open dialogue. Consensus relies on mutual respect and shared power, and consensus coding helped circumvent researcher bias, capture data complexity, and avoid errors.⁴³

We synthesized the information from all of the sessions and presented major themes to the photovoice group 6 weeks following the last session for participant feedback and clarification. During the feedback session, youth clarified that safety concerns were experienced during the day and not exclusively at night and emphasized the importance of acknowledging the intersectionality of the themes presented (eg, identity, access to transportation, safety). These clarifications were integrated into codes and interpretations.

RESULTS

Among the 10 youth participants, 7 identified as female and 3 as male, with a range of 13 to 16 years of age. Eight youth identified as Hispanic and 2 identified as mixed race (Asian/white and Asian/Black). Before the SARS-CoV-2 pandemic, primary modes of transportation were bus ($n = 6$), car ($n = 2$), walking ($n = 1$), and a combination of public transit, car, and walking ($n = 1$). During the study/the SARS-CoV-2 pandemic, primary modes of transportation were car ($n = 7$), walking ($n = 2$), and light rail ($n = 1$).

Findings across the 5 domains of the mobility justice framework are presented later. Photographs and characteristic quotes were paired to illustrate themes even if they were not taken and stated by the same person.

Dignify and decriminalize**Safety**

Youth reported positive and negative community interactions related to their identity in public spaces. They described feelings of vigilance and powerlessness as youth, anticipating oppressive actions and harms (eg, kidnapping was reported to be a prominent consideration in their nighttime mobility decision making). Youth worried about being hit by cars due to distracted drivers and the lack of public infrastructure such as adequate street light-

ing (Figure 2a-c). Youth reported feeling vulnerable riding public transit alongside people experiencing mental health issues, while recognizing the dangers police can bring to those with mental health challenges and/or communities of color (Figure 2d and e). Youth call for restorative services and mental health care for community members struggling with mental health and substance use, while discouraging police deployment. They shared personal experiences of racism as immigrants or children of immigrants, navigating public spaces with family



Figure 2. (a) "... by the time I, like, don't want to play [soccer] anymore, it's already dark. And I usually go home by myself and at times I don't want to take the bus because of, like, COVID. I just walk home. But you know I'm alone in the dark walking, there's no one around, you know. I just feel unsafe." (b) "... cars don't see pedestrians like young people like us ... they could get killed because, you know, drivers aren't paying attention sometimes. And I know, like, where I live ... when the lights are out, it is so dark, like, you literally can't even see any houses" (c) "I know there's, like, some drivers who, like, are behind you and they're, like, really close behind you ... for me that's, like, a lot of pressure. Like they're, like, pushing me to, like, to go faster." (d) "... sometimes I noticed that ... [people appearing under the influence of substances] and stuff, like, go near the bus stop or, like, hang really close by, and it honestly puts a lot of people on edge." (e) "... I feel like there's always a fear [around police], especially like for POC (people of color) that something ... *could* happen" (f) "... for our race as Hispanics, when we go to the store, if we speak our language, there's just people staring at us ... like a disgusting look ... it just feels very uncomfortable."



Figure 3. (a) "Well, I feel like the best way to define affordable would be free." (b) "... the bus is, like, a public place. It's, like, for everybody and, like, people should feel safe" (c) "I noticed, like, some bus stops don't really have, like, benches or anywhere to sit ... or at least have covers since it's always raining here."

members who speak languages other than English (Figure 2f).

Youth recommended traveling with others to protect themselves from harm. Reflecting on how people can feel unrestricted comfort in public spaces with the identities they hold, one youth participant said, "I think our society has to change, not only transportation, but our society as a whole and then, like, understanding other humans."

Decongest

Equitable access to mobility

Youth defined mobility access to be fast, easy, free, and safe. They emphasized the need for transportation to be free for all to support transportation access, especially for low-income communities (Figure 3a). Youth viewed public transportation as community spaces where everyone should feel safe, comfortable, and respected (Figure 3b). They emphasized the importance of access to various transportation modes, depending on their destination.

Public infrastructure changes

Youth recommended public infrastructure that would increase safety, including additional stop signs, blinking crosswalks, traffic calming, and street lighting. Youth highlighted the need for consistent and comprehensive infrastructure that promotes pleasantness and comfort to the public transit experience for people of all ages and abilities (Figure 3c). These include additional buses during peak hours; bus stop shelters, seating, and timetables at all bus stops; and phone applications that provide accurate real-time arrival information.

Decolonize and dream

Love for community

Youth define their community as spaces where they spend most of their time. They described assets of their community, including beautiful views of sunsets; spaces that provide opportunities for positive interactions such as soccer fields and community centers; and encounters with familiar faces (Figure 4a-c). They shared the importance of childhood memories of their neighborhood and surrounding areas to their sense of place.

Community awareness

Youth identified the need for community-wide, intergenerational dialogue to build awareness around community safety. They emphasized the value of youth voice and called for city leaders to take their opinions into serious consideration. Youth imagine a collective sense of community that welcomes and looks out for one another to encourage fearless and joyful movement.

DISCUSSION

Several broad themes emerged focused on access, safety, identity, public infrastructure, and community connection that policy makers should take into consideration to address mobility challenges for youth and their communities. Using a mobility justice framework to guide our methods, interpretation of themes, and dissemination activities helped ensure that this work advances community-driven solutions for fair and just community mobility.

Several findings from the present study centered on solutions to increase public transportation access. Increasing public transportation ridership is a crucial objective not only because it will improve

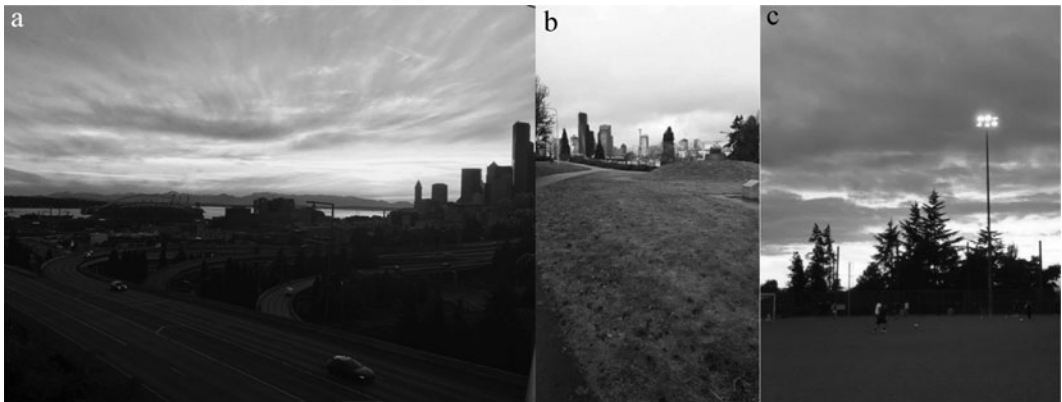


Figure 4. (a) "... I always see this special view and so I always have to take a picture of it ... it just brings some, like, happy vibe." (b) "... one thing I really love about the transportation ... is that I get to see, like, amazing views like that." (c) "... I play soccer, right. And it's just like ... I feel relieved. Every time I play, like, I put problems to the side. Just by playing soccer."

mobility for those without access to a personal vehicle but because it is key to reducing carbon emissions and addressing climate change.⁴⁴ To increase ridership, youth participants identified free transit as a key policy solution to advance mobility access. This follows recommendations from another local group called Youth for Equitable Streets (YES), which is calling for free or more affordable transit for all youth.⁴⁵ Studies have shown that fare-free transit significantly increases ridership by 20% to 60% in just a few months.⁴⁶ Kansas City was the first major city to incrementally implement free public transit in 2019.^{47,48} In 2021, the Los Angeles Metropolitan Transportation Authority unanimously voted for a sustainable financial plan for a pilot project proposal for students and low-income people to ride Metro trains and buses for free.⁴⁹ It will test the feasibility of permanently eliminating fares in an area where 70% of Metro's ridership is low-income riders.⁴⁹ Soon after our dissemination outreach calling for free youth transit, Seattle expanded free transit to all middle school students.⁵⁰ Local advocates continue to call for further expansion and access.

During the SARS-CoV-2 pandemic, public transportation experienced a major decline in ridership and primarily served low-income essential workers who depended on public transit, did not have remote work options, and are disproportionately people of color.^{47,51} Given fare-free policy can advance transportation equity by increasing the mobility of low-income people who depend on public transit, it is critical to consider possible funding opportunities. The elimination of fare collection/enforcement may sufficiently offset the loss of revenue for smaller transit systems.⁴⁶ Kansas City has been able to fund

free fares through the city budget, public-private partnerships, and federal funding.^{52,53} Fare-free advocates in Seattle are pushing for larger employers to subsidize transit passes for their workers and for the city, county, and state to assist smaller employers without creating financial burdens.⁵⁴

Concerns about fare-free public transit systems include the impacts of increased disruptive passengers that might negatively influence ridership.⁴⁶ However, most managers of fare-free transit systems have not reported disruptive passengers as a significant problem compared with fare collection and fare disputes.⁴⁶ Some policy recommendations suggest working with local law enforcement and local courts for handling disruptive passengers.⁴⁶ However, proposals that include criminal legal systems must consider the role policing plays in maintaining structural inequalities, with Black and American Indian/Alaska Native people significantly more likely to be killed by police than white people.⁵⁵ Police-based teams are often deployed to provide mental health crisis stabilization and psychiatric assessment,⁵⁶ an approach worth reconsidering, given more than 1 in 5 people fatally shot by police have mental illnesses.⁵⁷ Movements for equitable transportation, such as the National Campaign for Transit Justice, outlines policy recommendations that center vulnerable communities and highlights transit safety solutions beyond policing.⁵⁸ Whose Streets? Our Streets! (WSOS) is a Seattle-based, majority-BIPOC (Black, Indigenous, and People of Color) group of Seattle Neighborhood Greenways that uses an antiracist framework to review laws and policies and develop recommendations that better serve the lives of all street users, especially BIPOC community members.⁵⁹ Indeed, though the

youth in the present study acknowledged feeling vulnerable riding public transit with people experiencing mental health issues, they call for restorative services and mental health care, while discouraging police deployment. Seattle and other localities across the country should strongly consider implementing fare-free transit and should ensure that compassionate services are deployed in response to disruptive passengers.

Youth pointed to specific public infrastructure solutions to increase safe and comfortable mobility. Youth recommendations aligned with research showing that the built environment affects individual and community health. Neighborhoods constructed to support physical activity report higher social capital and lower depression and alcohol abuse.⁶⁰ Factors that support physical activity and mobility include high-quality and well-lit sidewalks, connectivity between sidewalks and public transportation, destinations to walk, green space, attractiveness of surroundings, and perception of safety.^{14,16,17,22-29,60} In addition, opportunities for social interaction result in better mental health.⁶⁰ Because such infrastructure changes have the potential to promote more livable communities, more resources should be directed toward these changes.

Youth emphasized the value of their opinions in city decision making. In a recent study conducted by SDOT, the Beacon Hill community raised the need for SDOT and partners to better engage teenagers to gather their input,⁶¹ yet our city leadership partners have expressed challenges with effectively engaging youth in city-led processes. Providing structured opportunities for youth engagement can address SDOH, especially when including a social action component.⁶² The community forum we hosted provided a powerful opportunity for neighborhood action. Following the forum's youth panel, 1 youth panelist exclaimed, "People are really hearing us here, and I want more people to hear us!" The youth report now being more deeply committed to advocating for mobility justice with their community. Nearly all (96%) forum attendee survey respondents reported learning about youth perspective as useful, with many commenting that they now plan to engage youth more often in advocacy and policy-planning efforts. City leaders and other policy makers should incorporate youth into decision-making processes. We continue to advance youth- and community-based recommendations by maintaining direct connection with city leaders, planning to hold alternative community forum formats for broader community reach, and writing a grant for additional CBPR focused on advancing mobility justice in the South Seattle and South King County community.

Limitations

This study was conducted during the SARS-CoV-2 pandemic and findings must be considered in light of transportation and mobility disruptions due to stay-at-home orders and related transportation budget cuts.⁶³ The youth who participated in the photovoice reported primarily utilizing public transit before the pandemic but relying on private vehicles during the pandemic to avoid infection. As such, participants' experiences may not fully capture the general mobility landscape.

Most youth participants did not feel comfortable turning on their camera during photovoice sessions, which may have impacted group cohesion and trust. Future work should consider tradeoffs between holding sessions in-person and the convenience of being online. Outside of pandemic circumstances, it would be beneficial to ask youth for their preference and if responses vary, consider a hybrid approach.

The findings of this research are not generalizable (nor were they intended to be). Rather, this study aimed to learn about lived experience and ways to partner with youth to bring their wisdom to decision makers. Relatedly, there were gaps in representation of the community. Few Black and Asian American and Pacific Islander (AAPI)-identifying youth participated, despite making up a large portion of the neighborhood population. This gap is important to acknowledge as violence significantly impacts mobility for BIPOC youth. Black youth—historically and currently—have been targets of violence and mistreatment at the hands of institutions designed to serve or protect people.⁶⁴ Beacon Hill is a historically AAPI neighborhood and the recent increase in violence targeting AAPI communities can cause safety concerns when leaving their homes. Future work should modify recruitment to better reach Black and AAPI community members.

CONCLUSIONS

City leaders and other transportation policy makers should adopt a mobility justice lens, incorporate and compensate youth of color for their expertise, employ facilitators of color, and offer technology support. Policies developed in partnership with youth and derived from a mobility justice lens could advance equity and correct the deep and intersecting disparities caused by systemic racism, SDOH, and inequitable mobility.

REFERENCES

1. Yearby R. Structural racism and health disparities: recon-figuring the social determinants of health framework to include the root cause. *J Law Med Ethics*. 2020;48(3):518-526. doi:10.1177/1073110520958876.

2. Office of Disease Prevention and Health Promotion. Social determinants of health. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>. Published February 14, 2020. Accessed May 20, 2021.
3. Untokening. Untokening mobility: beyond pavement, paint and place. <https://static1.squarespace.com/static/579398799f7456b10f43afb0/t/5a6cec6341920260cc90dd02/1517087852658/Principles+narrative+final.pdf>. Published January 27, 2018. Accessed February 8, 2021.
4. Juarez Z. The movement towards mobility justice in Los Angeles: building a framework grounded in popular education & community knowledge. <https://escholarship.org/uc/item/12k791n6>. Published 2020. Accessed February 11, 2021.
5. Valenzuela A Jr. Race, inequality, and travel patterns among people of color. *Travel Patterns of People of Color*. Columbus, OH: Battelle; 2000:1-26. <https://www.fhwa.dot.gov/ohim/trvpatns.pdf>. Accessed June 5, 2021.
6. Coren C, Lowe K. Mobility in and beyond communities: a qualitative study of mobility justice issues on the South and Southwest sides of Chicago. *Equitycity*. <https://static1.squarespace.com/static/59e46956bff2000caf3dcfa9/t/5f455fcc22d2cf420cad87ac/>. Published July 21, 2020. Accessed February 8, 2021.
7. Karner A, London J, Rowangould D, Manaugh K. From transportation equity to transportation justice: within, through, and beyond the state. *J Plan Lit*. 2020;35(4):440-459. doi:10.1177/0885412220927691.
8. Sheller M. Theorising mobility justice. *Tempo Soc*. 2018; 30(2):17-34. doi:10.11606/0103-2070.ts.2018.142763.
9. Bierbaum A, Karner A, Barajas JM. Toward mobility justice: linking transportation and education equity in the context of school choice. *J Am Plann Assoc*. 2021;87(2):197-210. doi:10.1080/01944363.2020.1803104.
10. Baruchman M. Racial disparities prompt calls to repeal King County's bicycle helmet law. *The Seattle Times*. <https://www.seattletimes.com/seattle-news/transportation/racial-disparities-prompt-calls-to-repeal-king-countys-bicycle-helmet-law/>. Published February 19, 2021. Accessed May 12, 2021.
11. Carter TJ, Johnson LT. "Blacks can't jump": the racialization of transit police responses to fare evasion. *Race Justice*. <https://doi.org/10.1177/215336872111007548>. Published April 8, 2021. Accessed June 5, 2021.
12. Johnson LT, Patterson EJ. The policing of subway fare evasion in postindustrial Los Angeles. *Punishm Soc*. 2022; 24(3):457-476. doi:10.1177/1462474521992115.
13. Banks M, Gunston E. UNFAIR: disparities in fare evasion enforcement by metro police. Washington Lawyers' Committee for Civil Rights and Urban Affairs. https://www.washlaw.org/wp-content/uploads/2018/12/2018_09_13_unfair_disparity_fair_evasion_enforcement_report.pdf. Published September 14, 2018. Accessed June 5, 2021.
14. Piccone C, D'Agostino EM. Targeting youth transportation equity and self-efficacy to reduce youth physical activity disparities: a novel approach for a public health 3.0 agenda. *Am J Public Health*. 2021;111(5):795-798. doi:10.2105/AJPH.2020.306143.
15. D'Agostino EM, Patel HH, Hansen E, Mathew MS, Messiah SE. Longitudinal effects of transportation vulnerability on the association between racial/ethnic segregation and youth cardiovascular health. *J Racial Ethn Health Disparities*. 2021;8(3):618-629. doi:10.1007/s40615-020-00821-8.
16. Roberts JD, Mandic S, Fryer CS, Brachman ML, Ray R. Between privilege and oppression: an intersectional analysis of active transportation experiences among Washington D.C. area youth. *Int J Environ Res Public Health*. 2019;16(8):1313. doi:10.3390/ijerph16081313.
17. Williams DR, Collins C. Racial residential segregation: a fundamental cause of racial disparities in health. *Public Health Rep*. 2001;116(5):404-416. doi:10.1093/phr/116.5.404.
18. People for Mobility Justice. About us. <https://www.peopleformobilityjustice.org/about-us>. Accessed May 12, 2021.
19. City of Los Angeles. Executive directive no. 10: vision zero. https://www.lamayor.org/sites/g/files/wph1781/files/page/file/Mayor_Garcetti_File_Executive_Directive_10_Vision_Zero.pdf?1440454405. Published August 24, 2015. Accessed June 5, 2021.
20. Kasakove S. Seattle bike helmet rule is dropped amid racial justice concerns. *The New York Times*. <https://www.nytimes.com/2022/02/18/us/seattle-bicycle-helmet.html>. Published February 8, 2022. Accessed March 5, 2022.
21. Centers for Disease Control and Prevention. Childhood obesity facts. <https://www.cdc.gov/obesity/data/childhood.html>. Reviewed April 5, 2021. Accessed June 7, 2021.
22. Mitra R. Independent mobility and mode choice for school transportation: a review and framework for future research. *Transp Rev*. 2013;33(1):21-43. doi:10.1080/01441647.2012.743490.
23. Shams-White MM, D'Angelo H, Perez LG, Dwyer LA, Stinchcomb DG, Oh AY. A national examination of neighborhood socio-economic disparities in built environment correlates of youth physical activity. *Prev Med Rep*. 2021; 22:101358.
24. McMillan TE. Urban form and a child's trip to school: the current literature and a framework for future research. *J Plan Lit*. 2005;19(4):440-456. doi:10.1177/0885412204274173.
25. Sirard JR, Slater ME. Walking and bicycling to school: a review. *Am J Lifestyle Med*. 2008;2(5):372-396. doi:10.1177/1559827608320127.
26. McDonald NC. Children's mode choice for the school trip: the role of distance and school location in walking to school. *Transportation (Amst)*. 2007;35(1):23-35. doi:10.1007/s11116-007-9135-7.
27. McDonald NC. Active transportation to school: trends among U.S. schoolchildren, 1969-2001. *Am J Prev Med*. 2007;32(6):509-516. doi:10.1016/j.amepre.2007.02.022.
28. Davison KK, Werder JL, Lawson CT. Children's active commuting to school: current knowledge and future directions. *Prev Chronic Dis*. 2008;5(3):A100.
29. Macridis S, Garcia Bengoechea E, McComber AM, Jacobs J, Macaulay AC. Active transportation to support diabetes prevention: expanding school health promotion programming in an Indigenous community. *Eval Program Plann*. 2016;56:99-108. doi:10.1016/j.evalprogplan.2016.02.003.
30. Israel BA, Schulz AJ, Parker EA, Becker AB. Review of community-based research: assessing partnership approaches to improve public health. *Annu Rev Public Health*. 1998;19(1):173-202. doi:10.1146/annurev.publhealth.19.1.173.
31. Wang CC. Youth participation in photovoice as a strategy for community change. *J Community Pract*. 2006;14(1-2): 147-161. doi:10.1300/J125v14n01_09.
32. Wang C, Burris MA. Photovoice: concept, methodology, and use for participatory needs assessment. *Health Educ Behav*. 1997;24(3):369-387. doi:10.1177/109019819702400309.

33. Seitz CM, Orsini MM. Thirty years of implementing the photovoice method: insights from a review of reviews. *Health Promot Pract*. 2022;23(2):281-288. doi:10.1177/15248399211053878.
34. Seattle Department of Neighborhoods. Beacon Hill Snapshot. <http://www.seattle.gov/Documents/Departments/Neighborhoods/Districts/Neighborhood%20Snapshots/Beacon-Hill-Snapshot.pdf>. Updated August 2019. Accessed May 19, 2021.
35. King County Hospitals for a Healthier Community. King County community health needs assessment 2021/2022. <https://kingcounty.gov/depts/health/data/community-health-indicators/~media/depts/health/data/documents/2021-2022-Joint-CHNA-Report.ashx>. Published February 9, 2021. Accessed June 4, 2021.
36. Seattle Department of Transportation. Beacon Hill Bike Route. <https://www.seattle.gov/transportation/projects-and-programs/programs/bike-program/protected-bike-lanes/beacon-hill-bike-route>. Updated March 26, 2021. Accessed May 12, 2021.
37. Hoerster KD, Romano E, Baquero B, et al. Process and early insights from the PATHSS study (Participatory Active Transportation for Health in South Seattle): a model for community engagement to address climate and health impacts. Paper presented as part of a symposium at the 42nd Annual Meeting of the Society of Behavioral Medicine. *Ann Behav Med*. 2021;55:S535.
38. Beacon Hill Safe Streets. About us. <https://www.bhsafestreets.org/>. Accessed May 12, 2021.
39. Seattle Neighborhood Greenways. About us. <https://seattlegreenways.org/>. Accessed May 12, 2021.
40. UW PATHSS. Infographic. <https://sites.google.com/uw.edu/uwpathss/infographic?authuser=0>. Published May 20, 2021. Accessed May 26, 2021.
41. Anna A, Ceja G, Perez S, Hicks O, Romano E, Hoerster K. OPINION: Make public transit accessible for all! South Seattle Emerald. <https://southseattleemerald.com/2021/10/12/opinion-make-public-transit-accessible-for-all/>. Published October 12, 2021. Accessed October 13, 2021.
42. Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005;15(9):1277-1288. doi:10.1177/1049732305276687.
43. Hill CE, Knox S, Thompson BJ, Nutt Williams E, Hess SA, Ladany N. Consensual qualitative research: an update. *J Couns Psychol*. 2005;52(2):196-205. doi:10.1037/0022-0167.52.2.196.
44. McGraw J, Haas P, Ewing R, Sabouri S. An update on public transportation's impacts on greenhouse gas emissions. Transit Cooperative Research Program. <https://www.nap.edu/read/26103/chapter/1>. Published 2021. Accessed June 5, 2021.
45. Youth for Equitable Streets. King County summer youth ORCA pass—qualitative research report. <https://kingcountymetro.blog/wp-content/uploads/2021/06/Final-Report-YES-Qualitative-Research.pdf>. Published May 2021. Accessed June 5, 2021.
46. Volinski J. Implementation and outcomes of fare-free transit systems: a synthesis of transit practice. Transit Cooperative Research Program. <http://www.masontransit.org/wp-content/uploads/2015/10/Implementation-and-Outcomes-of-Fare-Free-Transit-Systems-FTA-2012.pdf>. Published 2012. Accessed June 5, 2021.
47. Aguilar M, Bénichou L, Blanchard S, George J, Subramanian S. After showing its worth during pandemic, momentum builds for free or reduced-fare transit. *The Washington Post*. <https://www.washingtonpost.com/transportation/interactive/2021/public-transportation-free-fare-future/>. Published May 17, 2021. Accessed June 5, 2021.
48. Kansas City Area Transportation Authority. Why Zero-Fare KC? <https://zerofarekc.com/>. Accessed June 5, 2021.
49. Vega P. L.A. Metro votes to create financial plan for offering free rides to students, low-income riders. *Los Angeles Times*. <https://www.latimes.com/california/story/2021-05-27/l-a-metro-votes-to-create-financial-plan-to-launch-program-offering-free-rides-to-students-low-income-riders>. Published May 27, 2021. Accessed June 5, 2021.
50. Fesler S. Seattle expands free transit passes to all middle schoolers. *The Urbanist*. <https://www.theurbanist.org/2021/11/05/seattle-expands-free-transit-passes-to-middle-schoolers/>. Published November 5, 2021. Accessed November 10, 2021.
51. Liu L, Miller HJ, Scheff J. The impacts of COVID-19 pandemic on public transit demand in the United States. *PLoS One*. 2020;15(11):e0242476. doi:10.1371/journal.pone.0242476.
52. Kite A. "Only a beginning": mayor Quinton Lucas promises equity in first state of the city. *The Kansas City Star*. <https://www.kansascity.com/news/local/article239928263.html>. Published February 12, 2020. Accessed June 5, 2021.
53. Kansas City Area Transportation Authority. Coronavirus relief funds for transit. https://www.kcata.org/about_kcata/entries/covid-allocations. Published May 20, 2020. Accessed June 8, 2021.
54. Wilson K. ORCA for all. Seattle transit blog. <https://seattletransitblog.com/2019/09/25/orca-for-all/>. Published September 25, 2019. Accessed June 5, 2021.
55. Edwards F, Lee H, Esposito M. Risk of being killed by police use of force in the United States by age, race-ethnicity, and sex. *Proc Natl Acad Sci U S A*. 2019;116(34):16793-16798. doi:10.1073/pnas.1821204116.
56. Substance Abuse and Mental Health Services Administration. Crisis services: effectiveness, cost-effectiveness, and funding strategies. <https://store.samhsa.gov/sites/default/files/d7/priv/sma14-4848.pdf>. Published 2014. Accessed June 5, 2021.
57. The Washington Post. Police shootings database 2015-2021. *The Washington Post*. <https://www.washingtonpost.com/graphics/investigations/police-shootings-database/>. Updated June 3, 2021. Accessed June 5, 2021.
58. National Campaign for Transit Justice. Transit justice principles. <https://transitjustice.org/about/transit-justice-principles/>. Published January 25, 2021. Accessed June 5, 2021.
59. Seattle Neighborhood Greenways. Whose Streets? Our Streets! <https://seattlegreenways.org/wsos/>. Published November 24, 2020. Accessed August 23, 2021.
60. Renalds A, Smith TH, Hale PJ. A systematic review of built environment and health. *Fam Community Health*. 2010; 33(1):68-78. doi:10.1097/FCH.0b013e3181c4e2e5.
61. Seattle Department of Transportation. Beacon Hill Station Access and Mobility Study. https://www.seattle.gov/Documents/Departments/SDOT/TransportationPlanning/FinalBoards_Compiled.pdf. Published June 2018. Accessed October 2020.
62. Anyon Y, Bender K, Kennedy H, Dechants J. A systematic review of youth participatory action research (YPAR) in the United States: methodologies, youth outcomes, and future directions. *Health Educ Behav*. 2018;45(6):865-878. doi:10.1177/1090198118769357.

63. AP News. Washington's sound transit system faces \$11.5B shortfall. *The Associated Press*. <https://apnews.com/article/washington-seattle-transportation-corona-virus-pandemic-7a6855bd96daa8d4ee3d51b04305704a>. Published February 15, 2021. Accessed June 5, 2021.
64. Gilmore AA, Bettis PJ. Antiracism and the adultification of black children in a U.S. prison nation. *Oxford Res Encyclopedia Educ*. 2021;2021:1-32. doi:10.1093/acrefore/9780190264093.013.1293.