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Investing in Infrastructure for Healthy Communities

By putting community needs first, we can ensure that federal funding is used to build and restore health equity as well as the nation's infrastructure.



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he purpose of this paper is to better understand the opportunity that infrastructure offers for promoting health equity in the United States. Infrastructure has had a tremendous influence on health equity, defined as a fair and just opportunity for everyone to lead as healthy a life as possible through the removal of social obstacles to health, such as poverty and discrimination.⁰¹ Over time, the definition of infrastructure and how it is used have evolved significantly. For the purposes of this paper, we define infrastructure as the physical features in both the built and natural environment that shape our communities and economy, such as transit, roads, buildings, parks, and utilities, as well as broadband and data processing systems.⁰²

This report was produced by:



Learn more about this nationwide partnership addressing health equity in metropolitan planning.


Related Report

Nov 2021

Pathways to Health Equity

Key Recommendations

- **State, city, county, and tribal governments** should seize the opportunity to apply for funding allocated through the Infrastructure Investment and Jobs Act (IIJA) — along with other funding sources — to help meet the needs of their communities. This is a moment to make decisions with future generations in mind and change the way infrastructure is conceived in the United States.
- **Governmental and non-governmental organizations** should focus on health equity to determine which kinds of infrastructure are built where. If projects don't align with health equity and environmental justice outcomes, they should be reevaluated.
- **To achieve health equity**, projects that heal past harms should be prioritized. Communities that were damaged by or denied the benefits of past highway, transit, water, waste treatment, and power infrastructure can benefit from projects that redress these deep, longstanding inequities.
- **Building partnerships** between the public and private sectors is a necessary step towards building equitable infrastructure. Non-governmental organizations (NGOs), community-based organizations (CBOs), metropolitan planning organizations (MPOs), and non-profit organizations should play a strong role in shaping the infrastructure funding decisions of federal, state, county, and tribal government agencies.



Over the course of history, in many ways, infrastructure has improved health equity in the nation. But in other ways, it has diminished it.

Diminishing Health Equity

The Federal-Aid Highway Act of 1956 authorized \$25 million for the construction of the Interstate Highway System. While the highway system was originally devised for military purposes, it quickly became an efficient way for private and commercial vehicles to traverse the country.⁰³ Intended to reduce traffic congestion, noise and air pollution, and car crashes on local streets,⁰⁴ it also had the adverse effect of facilitating suburban sprawl, urban disinvestment, and spatial segregation.⁰⁵ All of these social inequities have disproportionately impacted communities of color.⁰⁶

Improving Health Equity

In 2009, \$19 billion was allocated by the federal government through the Health Information Technology for Economic and Clinical Health Act (HITECH) to improve and accelerate health information technology in the United States.⁰⁷ HITECH is a subset of the American Recovery and Reinvestment Act (ARRA), a \$789 stimulus bill that was passed following the 2008 recession. More than a decade later, this digital infrastructure has proven instrumental in raising awareness of health inequities for minorities — in terms of both rates of infection and vaccination status — brought about by the COVID-19 pandemic. Some of the essential services the HITECH provides are data aggregation and data analysis on population health, community engagement through reporting, and data portals for patients and doctors to connect virtually.⁰⁸

Bridging Health Equity and Infrastructure

Our past federal funding priorities show that investments in infrastructure can dramatically improve or diminish public health. Historically, however, health equity has rarely been the *driving force* in deciding what, where, and how infrastructure gets built. While, thanks to highways, driving a car is an efficient means of getting around, millions of Americans do not own cars. Instead, many of these individuals walk long distances or rely on underfunded public transit to commute to and from work.⁰⁹ And in our increasingly digitized world, while millions of Americans have reliable internet connections, millions have no broadband whatsoever, which significantly inhibits educational attainment, access to job opportunities, social networks, and transmission of public information and current events.¹⁰

The infrastructure we currently have is not always equitably conceived, designed, and distributed, but what if we made health equity integral to infrastructure planning? What if we put a greater emphasis on building more pedestrian-friendly streets with accessible, affordable public transit? And what if we expanded broadband access to get more people in rural parts of the nation online? Community activists, public officials, and many other people around the country have been working towards these goals for decades, and now we have a golden opportunity to answer these questions.

In November 2021, President Joe Biden signed the landmark Infrastructure Investment and Jobs Act (IIJA)—also known as the Bipartisan Infrastructure Deal — into law. The IIJA will allocate over a trillion dollars to rebuilding and renovating the nation’s infrastructure and creating new jobs in the process. The stated mission for the IIJA is “to rebuild America’s roads, bridges and rails, expand access to clean drinking water, ensure every American has access to high speed internet, tackle the climate crisis, advance environmental justice, and invest in communities that have too often been left behind.”¹¹

While this mission statement demonstrates the federal government’s understanding of the importance of addressing community needs in its infrastructure agenda, more can be done. We can reverse the stated priorities to make health equity the center of the federal government’s infrastructure agenda. In other words, we can invest in communities that have too often been left behind *by way of* rebuilding America’s roads,

bridges and rails, expanding access to clean drinking water, ensuring every American has access to high speed internet, tackling the climate crisis, and advancing environmental justice. In this way, promoting health equity or otherwise “investing in communities that have too often been left behind” becomes the lens through which we view infrastructure and a fundamental reason for why we build it, not the other way around. In theory, this is how we begin to use infrastructure to carve pathways to health equity.

About the Healthy Regions Planning Exchange

The Healthy Regions Planning Exchange brings together practitioners, planners, advocates, and community leaders from large metropolitan regions, mid-sized cities, and rural areas across the United States to address issues affecting health equity at a regional scale. Learn more about this nationwide partnership working to incorporate health equity into metropolitan planning.



Opportunities to Invest in Health Equity Through Infrastructure

1 Parks and Recreation

2 Rail Transit

3 Bridges

4 Highways

5 Housing

6 Commercial Buildings

7 Roads

8 Bus Transit

9 Utilities

In this research investigation, we discuss important attributes and principles of federal infrastructure funding. We then present case studies of regions around the United States that have successfully secured federal funding for certain infrastructure projects that promote health equity. Each of these case studies is paired with a similar effort or perspective exercised by some of the participants in the Healthy Regions Planning Exchange network.

Our hope is that this research investigation serves as a “how-to” guide for anyone trying to seize the opportunity to center health equity in infrastructure projects. This report is a resource, but it is not exhaustive. Additional resources on how to access federal infrastructure funding are increasingly being made available, and we have included references to several throughout this report. While this paper is primarily intended to help communities access present-day federal funding and use it to advance health equity, the ideas and concepts presented here may be applicable to future funding streams as well.

Navigating Federal Infrastructure Funding

Over the next five to eight years, the IIJA will distribute an estimated \$1.2 trillion to infrastructure projects across the 50 states and the 573 sovereign tribal nations in two main ways: formula funds and discretionary funds. The formula funding is pre-calculated for each state based on population size and other statistical factors. Additionally, states and tribal nations can apply for discretionary funding to pay for specific projects of interest. The money will be distributed by several federal agencies, with the Department of Transportation getting the largest share (more than \$567.46 billion),¹² followed by the Environmental Protection Agency (more than \$60.84 billion). Allocations of discretionary funds are assessed by the Comptroller General as well as state leadership appointees and tribal government officials. The process is overseen by Mitch Landrieu, former mayor of New Orleans and the White House's senior advisor for funding implementation.

State, city, county, and tribal government agencies are usually responsible for applying for, receiving, and allocating federal funding. However, non-governmental organizations (NGOs) and non-profit organizations play a vital role in both the funding application and project implementation phases of the process, especially when it comes to health equity. The process of centering health equity in infrastructure development can be simplified into the three stages.

Identify Community Needs

Work with community members, government agencies, and NGOs to identify community priorities and develop a list of needs. First, consider the characteristics of the community. Ask yourself, what sets the community apart from neighboring areas? Next, based on what you know and have learned in your communication and interactions with the community, and the disparities that you observe between it and neighboring areas, what outcomes do you wish for the community? Do you want it to be a more accessible place? A more commercially vibrant place? A safer place?

Review Proposed Infrastructure Plans

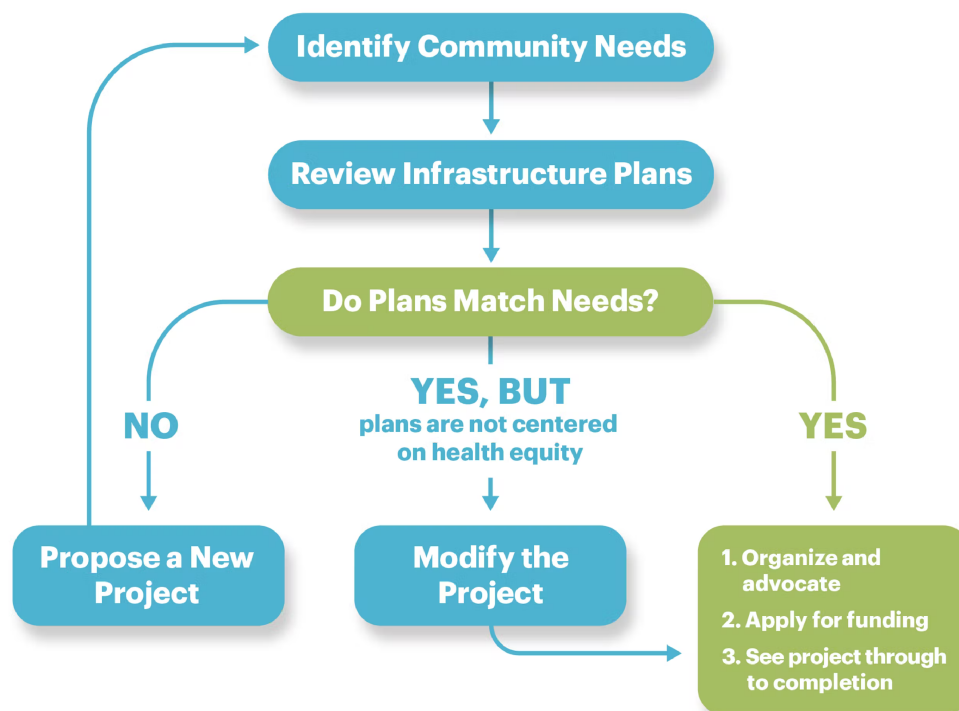
Review publicly accessible documentation on existing infrastructure plans. These

documents include capital plans, such as the Statewide Transportation Improvement Program (STIP) for transportation infrastructure projects submitted by state governments, and the Capital Planning and Investment Control (CPIC) plans for IT infrastructure submitted in consultation with tribal governments.¹³ In addition, the American Society of Civil Engineers produces an annual Report Card for America's Infrastructure, which rates the status of existing infrastructure projects by state.

3 Do the Infrastructure Plans Match the Community's Needs?

Ask yourself, does the project fulfill the desires communicated to me in my interactions with people of various needs and backgrounds in all the communities that will be impacted by the project? What are some of the trade-offs in implementing this project? Given a worst case scenario, are the benefits of the project worth the risks? Will implementing this project betray the community's trust in my organization or agency, or help renew it?

Process for Centering Health Equity in Infrastructure Development



The steps that follow are dependent on the answer to the question, “Do the Infrastructure Plans Match the Community’s Needs?”

If the answer is:

- **“No, the infrastructure plans do not match the community needs at all,”** then a new project proposal is recommended. Before implementing a new project, however, it is very important to review the community’s needs and existing infrastructure plans once more in case these have shifted over the course of planning and designing the new project. It is strongly advised not to pursue projects that will be detrimental to community health and wellbeing. Instead, advocate strongly against projects that will diminish health equity by informing and bringing together as many constituents and partners as possible. Engage the community in an ideation process and propose a new project that does meet their best interest. Prior to implementing the project, be sure to revisit community needs and plans to ensure that priorities have not shifted and that the new project proposal remains relevant.

Example: Atlanta, GA and Pittsburgh, PA reject the status quo and revolutionize infrastructure in their local regions with new ideas.

- **“Yes, but either the plans or the needs identified do not sufficiently advance health equity,”** then it is advised to first amend the project to center it on health equity before following through on the remaining steps. Projects that are not centered on health equity will only improve health outcomes for some people and not for all. Even if they have been in the pipeline for a long time, these projects may no longer be relevant to the community if it has recently expanded or diversified, or if the community was neglected or excluded in the past. One way to verify whether a project is truly health equity-centered is to consider how else the project budget could be used. If the money could be used in a way that would assist a wider range of people in the community, then the project is likely not the best option as is and should be modified.

Example: Rochester, NY and Multnomah County, OR reframe transportation projects with a community health lens.

- **“Yes, the infrastructure plans match the community’s needs,”** then it is advised to proceed with organizing the community and advocating for the infrastructure project, applying for funding, and ensuring that the project is delivered to completion to the satisfaction of the community. Projects that fall into this category demonstrate clear connections to community needs and potential funding streams are clearly identified. There is usually already a good amount of enthusiasm around the project from the community, but not always. In some cases, the novelty of the project is a cause for reservation. This is all the more reason to inform the community from the inception of the project and to make

a concerted effort to incorporate community members' input throughout.

Example: Umatilla Indian Reservation, OR and Pine Ridge Reservation, SD establish community connections from the inside out to build infrastructure, beginning with cultural values.

***** GUIDING PRINCIPLES

Planning Exchange: Members of the Planning Exchange meet at the Regional Plan Association office in downtown Manhattan.



When it comes to applying for funding opportunities, both government and non-governmental organizations must be transparent with the community about funding eligibility for federal money. It is in everyone's best interest to apply for relevant funding whenever it becomes available. State, city, and county officials and tribal officials should keep abreast of notices of funding opportunities (NOFOs) by visiting the websites of the relevant government agencies and signing up for notifications. For some federal funding opportunities, non-governmental community and civic organizations can visit Grants.gov to check their eligibility and browse funding opportunities available to them.

Three principles should guide the federal funding application process for governmental and non-governmental organizations alike.

1 Form, maintain, and leverage relationships.

Centering health equity in infrastructure altogether takes efforts beyond what any single organization or government agency can muster on its own. In many cases, the task at hand is to undo the product of decades of health inequities in the form of disenfranchisement, marginalization, and segregation, and that lift requires collective action. It is for this reason that organizations and agencies must build trust and positive reputation in the community in order to generate the critical mass necessary to effectuate large-scale change. Furthermore, they must be able to form relationships with one another and leverage those relationships to get things done efficiently.

2 Be creative.

Be creative in identifying funding eligibility. The best funding sources may not be immediately obvious given the nature of the project, and some projects may be eligible for more than one source of funding. In the end, the right solution may not look like a traditional highway or brownfield project, but it may, nevertheless, be a worthy candidate for federal funding. Most important is that any and all solutions are designed to address the needs of the community from a health equity standpoint.

3 Persevere.

Every government is different, and the infrastructure implementation process will vary from municipality to municipality, state to state, and tribe to tribe. Build local knowledge to navigate bureaucracy and develop policies that enhance the project for the long term. Carefully track the progress of the project. Monitor and address any adverse impacts on the wellbeing of community members and their families until you achieve the health equity results you wish to see.

It is unrealistic to expect any single project to address every need in a given community, nor is it realistic to expect that any single project will address the needs of some aspects of the community without putting other aspects at risk. Centering health equity in infrastructure development is not about eliminating these risks altogether. It is instead about mitigating them by putting the community's best interests ahead of any individual project, and considering its long-term impacts.

Health Equity Within the IIJA Framework.

The IIJA represents the largest single federal investment in generations, includes a number of new and enhanced funding categories, and contains language and provisions promoting environmental justice. It will be up to every actor in the complicated allocation process — from the community members and organizations that choose to weigh in and advocate, to the state and local agencies and elected officials that will drive much of the application and project initiation process, to the federal agencies that will make many of the final decisions — to determine how well the law is implemented and who ultimately benefits. That said, the IIJA does not encompass every type of infrastructure needed to advance health equity. The final legislation adopted by Congress did not include funding for housing, clean energy, and climate mitigation that could have addressed existing health needs and inequities. The largest share of funding by far is for roads and highways, and existing formulas for allocating funds limit flexibility for prioritizing projects that could do more to advance health equity.

Therefore, building health equity within the framework of the IIJA requires a great deal of creativity. There are six main categories of infrastructure that the federal government is most interested in funding through the IIJA: transportation, water, broadband, resiliency, energy, and legacy pollution. At face value, some of these categories may not appear to have a connection to health or equity.

However, a closer look reveals countless ways all of these infrastructure types can break down barriers to health equity. For instance, in the “water” category, addressing health equity could mean ensuring that poorer households have as much access to clean drinking water as wealthier households. Another example in the “resiliency” category could be ensuring that experimentation with renewable energy solutions (such as constructing a dam for hydropower) in one area does not cause pollution or disturb the ecological landscape of a neighboring area. More information on the implementation of IIJA funding is provided by the National Governors Association.

In addition, while funding applications for health-equity-centered infrastructure projects should be pursued aggressively, it is important not to focus exclusively on the IIJA. If a project that is important to your community does not fit into one funding stream, or funding for that sector has simply been exhausted, there are contemporaneous funding streams available, such as the American Rescue Plan Act, the Capital Projects Fund, and the Coronavirus Relief Fund. Some of these opportunities may, in fact, be more relevant to the needs of your community. Be mindful that some funding streams change names over time. For example, Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants were originally created under the American Recovery and Reinvestment Act (ARRA) and called Transportation Investment Generating Economic Recovery (TIGER) grants. Wherever possible, try to consolidate federal funding with state or city funding and (for NGOs) private donations.

Case Studies: Health Equity in Action

In the first research investigation of the Healthy Regions Planning Exchange, entitled Pathways to Health Equity, we explored five scales of intervention at which organizations and communities around the United States are working to improve health equity: health-targeted programs, holistic place-based strategies, multi-disciplinary regional strategies, and national networks. Each of these scales requires a mindset shift to make health equity the focus of infrastructure development. By failing to center infrastructure around a health equity mindset, we resort to planning, constructing, and repairing infrastructure that perpetuate class and race disparities.

Below is a presentation of case studies to spotlight regions around the nation that have worked to improve equity by using health outcomes to inform infrastructure projects. Each case study exercises a different process in centering health equity in infrastructure, drawing from a diverse pool of project types, geographic regions, and government structures. The case studies are paired with a list of key takeaways. We then relate each study to the work of select participants from the Planning Exchange who share similar visions and processes for federal infrastructure funding and health equity.

Related Report

Nov 2021

Pathways to Health Equity

STATION SOCCER

Community-Oriented Development Meets Transit-Oriented Development in Atlanta, GA

Station Soccer is a network of soccer fields and community gardens designed in close proximity to metropolitan train stations. These facilities bring the community closer and promote healthy living by connecting families to recreational activities through affordable, accessible transportation.



The concept for Station Soccer was piloted in 2016 by the non-profit Soccer in the Streets, founded in 1989 by Carolyn McKenzie. McKenzie did not have a lot of experience with soccer, but knew that she wanted to connect underserved children in predominantly Black and immigrant neighborhoods in and around Atlanta with character-building opportunities. For the first time in recent history, children in the area got the chance to participate in the kinds of activities McKenzie could not while she was growing up.¹⁴

Once Soccer in the Streets was founded, it became evident that the affordability of transportation to and from games and practices was an obstacle for the young participants. At the time, the non-profit's greatest expenditure was the cost of bussing kids from their schools to soccer games. By partnering with the Metropolitan Atlanta Rapid Transit Authority (MARTA) to construct soccer fields close to public transit, Soccer in the Streets greatly reduced the cost of transportation to its programs. Today, Station Soccer is a network of five (going on six) soccer fields constructed at or near MARTA's transit stations. These recreational facilities, built in close proximity to affordable, accessible transit, have served to promote an active lifestyle, healthy living, and community connection for all.

No federal funding has been allocated through MARTA directly towards the project. However, the Station Soccer fields are built on federal land leased to Soccer in the Streets by MARTA. When it comes to building infrastructure, acquiring federal assets can be just as significant as acquiring federal funding. The government makes opportunities for developing federal land available through programs such as the Federal Land Transaction Facilitation Act (FLTFA). In the case of Station Soccer, however, permission to build recreational facilities on federal land was obtained through a permitting process facilitated by the Federal Transit Authority (FTA), the Atlanta Department of City Planning, and MARTA.

The first Station Soccer field was constructed at Five Points, the single intersection between the four MARTA train lines. Nearly 300 children signed up within a week of the pilot's launch and, today, Soccer in the Streets serves over 5,000 children annually.¹⁵ Prior to its TOD program, the area around MARTA stations was underutilized. When the second Station Soccer field was constructed at the West End station, it was transformative for the community to see the fenced off lot beneath the train tracks become a place intended to be safe and accessible for locals. During an interview conducted by RPA, Soccer in the Street's Director of Strategic Projects, Sanjay Patel, reported speaking to one parent who described this experience as "surreal."

Station Soccer is a win-win-win across the board. Not only are parents and children in the neighborhood reclaiming land for their community, MARTA's Director of Transit-Oriented Development, Debbie Frank, remarks that "[Station Soccer] provides an opportunity for MARTA to support a worthwhile community program that is making a difference in the lives of the people the program serves." Furthermore, the sports programming is paired with other much-needed educational and social programs held on the premises, such as community gardens through the Fresh MARTA Market program. Such amenities were all part of MARTA's vision for transit-oriented development even before Station Soccer was introduced in 2016, and they are now being realized in a highly sustainable, meaningful way.¹⁶ Thanks to the Station Soccer initiative, the Atlanta area is evolving from a patchwork of loosely connected neighborhoods to become the "League of Stations."



Key Takeaways:

- **“Community is the source,”** says Sanjay Patel. From the conception of a project through to its fulfillment, the health equity interests of the community must remain at the center.
- **Getting through to government officials** as a non-profit may require a push. Sometimes this push takes the form of advocacy and other times it takes the form of a conversation over coffee. During a meeting with the city’s planning commissioner over coffee one day, Sanjay Patel managed to eliminate the requisition of permits for Station Soccer — which can be a grueling process for some infrastructure projects.
- **Bigger doesn’t necessarily mean better.** The impact of a project does not have to be proportionate to its size. One with a relatively small footprint, such as a soccer field, can “multisolve” for many different kinds of issues in the community and have a large impact.

Perspectives from the Planning Exchange

Pittsburgh, PA Calls for New Approach to Non-Profit Leadership in Infrastructure Development

Pittsburghers for Public Transit and the Hill District Consensus Group in the Pittsburgh, PA region are in the process of making transit and housing options available to Pittsburghers in need by connecting transit-oriented development to affordable housing. In order to do so, Co-Director of the Hill District Consensus Group Carol Hardeman has emphasized the need to “get everybody [government officials and non-profits] on the same page.” Non-profits are burdened with the task of doing the legwork in the community, but do not always receive financial support from the government. This “show-me-the-money” attitude is what has helped the Pittsburgh region of the Planning Exchange “shift the paradigm” in order to effect real change in the community. The contributions of public authorities are not automatic and when it comes to Pittsburgh’s infrastructure; a push is usually required. However, it is important that it is a push in the right direction.



“Put the process over the products.”

Laura Chu Wiens

Executive Director, Pittsburghers for Public Transit, Pittsburgh, PA

For example, earlier this year, the Fern Hollow Bridge in Pittsburgh collapsed. Ironically, this happened on the day that President Biden was scheduled for a press conference in Pittsburgh to tout the passage of the IIJA. The reconstruction project for the bridge is just one of several restoration projects that will be undertaken over the next few years, as much of Pittsburgh’s infrastructure is almost a century old.¹⁷ Having served over 14,000 vehicles daily before it collapsed, the government was quick to make plans to begin rebuilding the Fern Hollow Bridge as an automobile bridge.¹⁸ However, renewing such car-oriented infrastructure, according to Executive Director of Pittsburghers for Public Transit (PPT), Laura Chu Wiens, is not in the community’s best interest.

This is because, in addition to single-occupancy vehicles, the bridge served two of the most popular bus routes in the county and bisected the City of Pittsburgh’s largest park. Therefore, Chu Wiens points out, transit riders, cyclists, pedestrians and park advocates have an equal or greater stake in the design and implementation of the

reconstruction of the bridge to ensure that the corridor will be safe and effective for all users. Pittsburghers for Public Transit is organizing transit riders and Fern Hollow-adjacent neighborhood residents to identify needs that were not met by the previous bridge design, so that the new bridge can remedy those flaws rather than repeat them. But Chu Wiens admits that building community around infrastructure is no easy task.

In planning, communities are often presented with a single option: The public must agree to a fully-fleshed out product or plan, or else no improvements will be made available to them. Chu Wiens sees this as “a fixation on product over process.” She insists that the public must be collaborators in planning because, in fact, those who are most impacted by these planning decisions are also those best equipped to identify solutions to meet their own needs. To avoid constructing or refurbishing infrastructure that perpetuates health inequity in the region, Chu Wiens insists on the importance of building community around a plan.

Infrastructure planning should not begin only once there is money on the table; it should begin long before money is a factor. This way, when the funds do become available there is consensus around where they should be allocated. To “build community around a plan” in this fashion, as Chu Wiens urges, is to greatly reduce the possibility of backlogging infrastructure projects that should have been funded decades ago. To make new plans when old plans have not been fulfilled is a waste of time, resources, and community trust. We need to “put the process over the products,” she asserts, and put the power of saying “no” to inequitable infrastructure projects in the hands of non-profits.

***** INNER LOOP EAST

Realigning Highway Infrastructure with Health and Safety Priorities in Rochester, NY

The Inner Loop Transformation Project is a highway removal project to revamp an automobile expressway created in the 1950s and 1960s into a pedestrian, residential, and business-friendly corridor for the community. The first phase of the project, the Inner Loop East, is complete and will be succeeded by the Inner Loop North project, scheduled to break ground in 2024.



Completed in 2017, the Inner Loop East Transformation Project is a highway removal project which consists of converting an underutilized stretch of sunken expressway into a vibrant street complete with pedestrian space and bike lanes. The new street design discourages high speed traffic and car crashes, and reconnects neighborhoods with mixed use development opportunities. The renewed street has also paved the way for new, affordable housing, commercial development, and job opportunities. Essentially, the project has knitted back together neighborhoods that were previously torn apart by the construction of the highway in the 1960s.¹⁹

Since the project's completion (excluding the years of the COVID-19 pandemic), the area has seen a 50% increase in pedestrian traffic and an over 60% increase in bicycle traffic. Even during the pandemic, the number of pedestrians and cyclists has not dipped below pre-construction levels. Furthermore, other signs of community activity have become clear, such as local small businesses opening up along the corridor, and the sound of music being played from people's balconies. Additionally, thanks to the new space made available, the local Strong National Museum of Play, the only museum in the world dedicated to preserving and exploring the history and cultural impact of play, was able to expand and increase capacity by 90,000 square feet. Building safe spaces for play was an important impetus for the stakeholders of the project, including families and children.

The renewed Inner Loop East took over two decades to complete. Initially, the project was not well supported as a transportation priority by the Department of Transportation. It only gained momentum thanks to Transportation Investment Generating Economic Recovery (TIGER) grants. The TIGER program breathed new life into the project, which was also redefined from a transportation project into a community development project, making it a strong candidate for discretionary funding. Along with the TIGER grant issued by the federal government in 2013, the project received \$5 million in state funds and several hundred thousand dollars in city funds. Public input was integral throughout the design and implementation processes for this project. Informational meetings and open houses were held consistently since the project's inception.

With any infrastructure restoration project comes certain tradeoffs. For example, as Deputy Commissioner for the Department of Neighborhood and Business Development of the City of Rochester Erik Frisch pointed out in an interview conducted by RPA, removing the highway reduced air pollution in the short term by taking more vehicles off the road, but was replaced by less fuel-efficient stop-and-go traffic, which has the potential to increase air pollution in the short term. However, new housing developments in the area will bring people closer to their work and recreational activities in downtown Rochester. So, this was a trade-off made with the conviction that driving will decrease in the area, ultimately making the air quality cleaner in the long term.

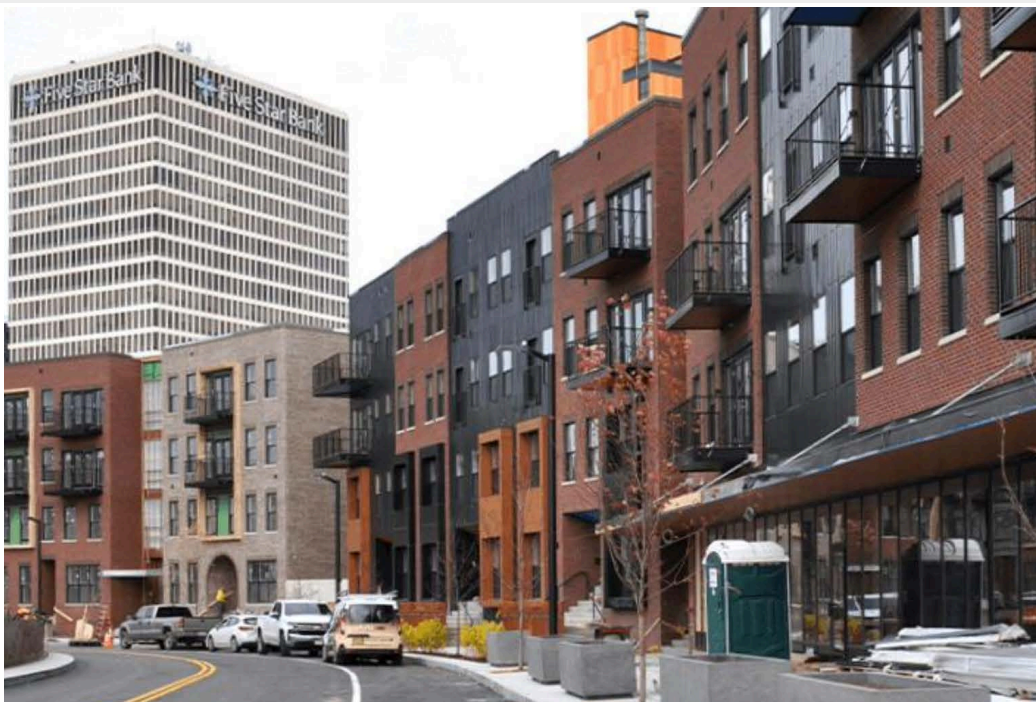
The Inner Loop East Transformation Project is to be succeeded by the Inner Loop North project, which is scheduled to break ground in 2024. This project promises to be more centered on racial equity than its predecessor by focusing on restoring community trust and making residents active participants in the rebuilding process through public consultations and other forms of community engagement. Preserving the existing affordable housing will be essential for the success of the Inner Loop North project. In an interview conducted by RPA, Mike Bulger, Healthy Communities Coordinator at Common Ground Health, commented on the importance of “community ownership” of any infrastructure project. When the community sees itself as involved in the project, they become “ambassadors of the project” and identify with it better as opposed to viewing the development as an “outside force changing the neighborhood.”

Key Takeaways

“Chip away at distrust and build healing,” says Erik Frisch. In some cases, infrastructure development is a traumatic event. In downtown Rochester, people had lived the trauma of seeing their neighborhoods bulldozed to build the original Inner Loop in the 1950s and 1960s. The community should not have to accept infrastructure that does not promote health equity. It is the responsibility of government officials to correct historic wrongs and heal the wounds they have caused.

Securing funding for infrastructure projects may require reframing the project’s purpose and, thus, how it is viewed by politicians. Sometimes, this process takes time, as the intentions behind the project evolve. The Inner Loop East Transformation Project started out very slow when it was seen as a highway project, but ended up gaining much more traction (and funding) when it became a community revitalization project with many vocal supporters.

“The only way we’re going to get health equity is if we have decision-making equity,” says Mike Bulger. When community members are informed and take ownership of projects happening in their neighborhoods, they can help inform and educate others. Ultimately, this builds a foundation of trust and communication that is essential to the strength and longevity of any infrastructure project, as well as being a foundation of health equity.





Perspectives from the Planning Exchange

Multnomah County, OR Reframes Transportation as a Public Health Issue to Reform Highway Infrastructure

The Multnomah County Health Department of the Multnomah County, OR region is strategizing and advocating for safer streets and fewer traffic fatalities, which appear disproportionately in communities of color. Part of this work involves redefining the concept of transportation safety to encompass important characteristics of health equity, such as safety from violent crime, motor vehicle injuries, harassment, and unfair policing. It also includes modifying media coverage to relay these values to the larger Multnomah County community appropriately. This reframing, in turn, shifts public support for finding solutions to these issues.

One street in particular has been the epitome of the Multnomah County Health Department's efforts to reframe and realign transportation with the community's health equity priorities. 82nd Avenue is the dividing line between east and west Portland, and it is among the busiest and deadliest streets in the region. It is also a heat island with little greenery to speak of, which has become a renewed threat to health equity in the context of climate change and the unusually high temperatures that Oregon saw in the summer of 2021.

Up until January 1st of this year, the avenue was owned by the state and was only one of dozens of problematic streets and intersections under its jurisdiction. In

a transformational move, the state granted ownership of 82nd Avenue to the city of Portland. By redefining the jurisdiction of the site into a much smaller government unit, more municipal resources could be concentrated on it. While 82nd Avenue is beginning to see some marked improvement thanks to this transformation, the Multnomah County Health Department is still awaiting the same change for similar problem streets in the region, such as Lombard Street and SE Powell Boulevard. The Health Department is currently advocating for these changes in partnership with community groups, such as Oregon Walks, a non-profit dedicated to reclaiming Oregon's streets for pedestrians, and Metro Regional Government, an important stakeholder and steward of federal transportation funding.

As Program Supervisor at Multnomah County Health Department Brenden Haggerty remarked during an interview conducted by RPA, “framing it as a transportation issue hasn't always worked; framing it as a health equity issue is becoming a more important way to connect.” What Haggerty and his colleagues would like to see are Portland streets that move “slowly and steadily.” He comments that a mark of success for this project will be the ability for children to safely cross the avenue at intersections without adult supervision, which will ultimately signal to the diverse community that lives and works around the busy street that it is an inclusive, protected space.

“ Safe streets and inclusive public spaces are a necessary precondition for healthy behaviors like using active transportation, strengthening social connections, and accessing economic opportunities.”

Brenden Haggerty

Program Supervisor, Multnomah County Health Department

KAYAK PUBLIC TRANSIT

Increasing Connectivity in the Public Transit System of the Umatilla Indian Reservation, OR

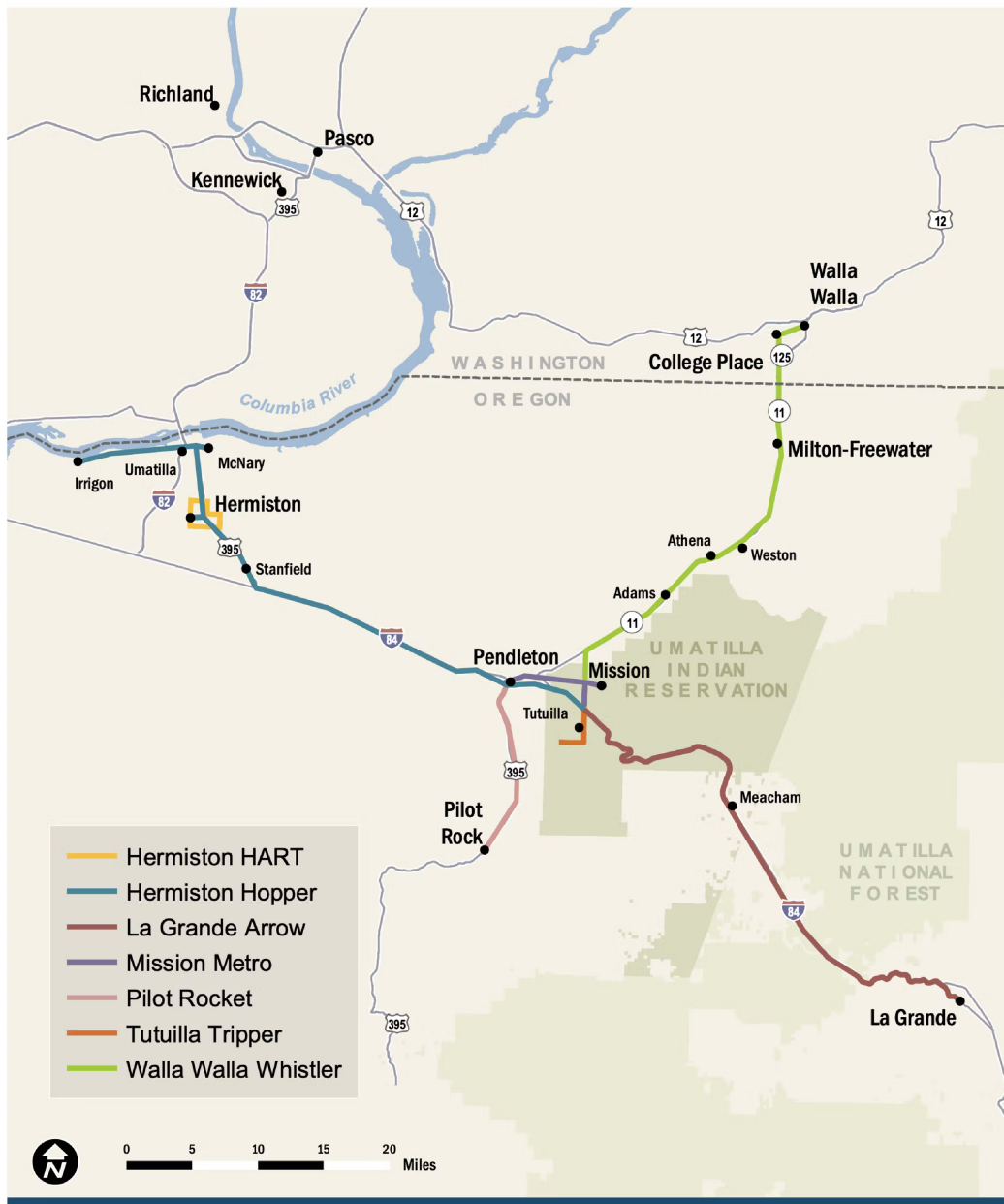
Kayak Public Transit is a regional bus system directly serving the Confederated Tribes of the Umatilla Indian Reservation and surrounding areas of northern Oregon and Washington, including the neighboring cities of Pendleton and La Grande. The names of the bus routes pay homage to culturally relevant symbols for the Indigenous community.



In the last few decades, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) has seen tremendous economic growth, becoming one of the largest employers in the region. Getting employees to and from work, however, became a challenge. To address this challenge, the CTUIR has created a commuter bus system open to tribal members and non-tribal members alike through a combination of grants from the Federal Transit Administration (FTA): Formula Grants for Rural Areas Program (Section 5311), Formula Grants for the Enhanced Mobility of Seniors and Individuals with Disabilities Program (Section 5310), and Federal Tribal Transit Funds.

According J.D. Tovey, Tribal Planning Director who manages Kayak Public Transit, the purpose of the initiative is to create mobility options and essentially “allow the buses to be extensions of people’s shoes.” By providing accessible transit options, individuals who would otherwise be “mobility challenged” are able to travel farther, inherently extending their ability to engage with and experience more of their community. In so doing, Kayak Public Transit addresses an important health equity issue in the region. The bus system gives those without access to a private vehicle the ability to access work, education, shopping, social services, medical appointments, and friends and family.

BUS ROUTES



Kayak started out serving exclusively “riders of necessity,” or those who could not get around otherwise due to a disability or reliance on family and friends to get around. Between its inaugural service in October 2001 and December 2002, the system only had seven riders and might have been destined for failure. But CTUIR believed in the service and persevered. For twenty years, they used whatever money they could procure, and were ultimately able to develop a regional bus network with over 100,000 annual riders.

Beyond serving the reservation, the system strategically connects to other transit service providers and other mass transit (such as Amtrak) ultimately linking the rural sovereign nation to three airports and several hospitals and universities. Through the American Rescue Plan Act (ARPA) and Coronavirus Aid, Relief, and Economic Security (CARES) Act funding, the system is also now able to increasingly promote itself over radio and social media and recover the dip in ridership it has seen since the COVID-19 pandemic. Strategically, the CTUIR was also able to transform negative health practices, such as tobacco use, into a public service opportunity. State Transportation Funds (STF), which, in Oregon, are partially derived from taxes from health-damaging products such as cigarettes, have been used to support Kayak Public Transit.

In addition to all the federal, state, and local funding received, the growth of the system can be attributed to important programmatic efforts to ensure that it serves the community as best it can. Such efforts have involved educating the community on how to get the best use out of the service, such as how to make transfers to get to farther destinations. This also includes instilling faith in the community that the buses will run consistent, on-time service. As Tovey pointed out during an interview conducted by RPA, in rural areas, reliable transportation is not only a convenience; it is absolutely necessary for economic development, safety and community health. Rural areas may not need the same frequency of service as more urban areas, but there is still a need for an appropriate frequency of service in order to properly support the community.



Key Takeaways

- One of the marks of a sustainable infrastructure project is the gradual, steady procurement of funds and the creativity to use whatever funds become available.
- As a novel program, community buy-in was not a given, and gaining the trust of tribal members and other partners was an essential step. Getting to know one's neighbors and connecting with them as business partners and friends is the best way for NGOs to implement projects like Kayak Public Transit. The CTUIR had to resolve some historic misconceptions with surrounding areas, such as the City of Pendleton, in order to best serve the public.
- It's critical that a community adopt the project as its own. For example, in recent years, one community member in Echo, OR, organized a petition and received signatures from over 20% of their community to support an extension of the service to their town. Citizen participation in expanding or continuing a project is a milestone of achievement and community acceptance that should be celebrated.

Perspectives from the Planning Exchange

Pine Ridge Reservation, SD Uses Cultural Connection to Build Community

Thunder Valley Community Development Corporation (TVCDC) of the Pine Ridge Reservation, SD is reimagining health equity in a manner catered to the specific needs of the Lakota people. Through a series of social, economic, and advocacy programs, the work of TVCDC is rooted in eight areas that are foundational to the lifeways and spiritual values of the community: food sovereignty, housing and home ownership, Lakota language and education, regenerative community development, regional equity, social enterprise, workforce development, and youth leadership. TVCDC is invested in building a community that meets both federal standards of sustainability and Indigenous values of balance and reconnection with *unč'i maka* (mother earth).

The vision for an energy sovereign community at Thunder Valley centers on healing — providing intentional spaces for healing, health, and wellbeing to community members searching and striving for a liberated reality free from the chains of colonization. In accordance with TVCDC's Regenerative Community Development initiative, energy sovereignty not only includes reducing the reservation's carbon footprint, consumption and waste, but also producing all of its energy needs, creating a liberated and sovereign energy system. This long-term sustainability plan for the community is based on a sustainability feasibility study that will include a variety of clean energy projects and technologies along with other sustainable practices all leading to energy independence.

A priority in this energy sovereign community is to build a facility with dorm-style housing suitable for young and old. It is a Lakota belief that intergenerational conversations facilitate the healing process between youth and their elders. Teaching and learning between generations can be further facilitated by connecting them to *unč'i maka* through environmentally friendly education programs and infrastructure, such as lagoons and natural wetland projects. Evidently, community connection is an important step to resolving intergenerational trauma and building a healing community.

Another infrastructure solution identified in the Pine Ridge Reservation to help meet this need is creating a reliable, accessible transportation system to get tribal members to and from different parts of the reservation, which can be well over 100 miles round trip at times. According to Thunder Valley residents, the current Oglala Sioux Tribe (OST)

Transit system faces challenges of overcrowded buses and long wait times, not to mention high fuel costs. TVCDC envisions an electrified fleet of buses and cars that run cleaner and more frequently to better serve the increasing demand of transit riders.

However, in consideration of Lakota lifeways, fostering community connections through an improved public transit system is only a start. Other connective infrastructure must be developed simultaneously to bring communities together and build equity, including reliable, clean access to water and energy. Tatewin Means, Executive Director of the TVCDC, hopes that the Pine Ridge Reservation may one day “become a model” for other tribal nations working towards building infrastructure in Indigenous communities that are holistic, healing interventions and uphold Indigenous values.

A Way Forward

Our findings show that when it comes to centering health equity in infrastructure projects, there is a way forward. In fact, there are multiple ways, depending on how well a community, city, region, state, or tribal nation's agenda aligns with its health equity priorities. In this paper, we have identified three paths charted by members of the Healthy Regions Planning Exchange and the featured case studies: using cultural connection to build community, reframing transportation as a public health issue, and taking a broader, equity-focused approach to transit oriented development. Every strategy is different because every community and every government has unique assets and challenges. Yet, there are some essential principles that are the same, including the importance of relationship building, having a sense of creativity in aligning infrastructure opportunities to funding opportunities, and exercising the gumption to persevere through both anticipated and unforeseen obstacles.

This report is the second of a series of three research investigations, all of which are intended to inspire new ways to think about intersections between health equity and regional planning. We hope that participants of the Healthy Regions Planning Exchange and similar organizations and partnerships throughout the United States who are committed to building a more just, equitable, and healthy society for all will be able to use the lessons and resources in this report to guide their work. Changing how we view infrastructure can begin to heal wounds in our cities, towns, villages, neighborhoods, and communities. Whether paving roads, laying tracks, or connecting pipes, we can forge a way forward toward a healthier, more equitable world for all.

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End Notes

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