

THE INTERSECTION OF HEALTH AND TRANSPORTATION: HOW UTAH MOVES PEOPLE, NOT CARS

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1 ABSTRACT

2 For over five years, the Utah Department of Transportation (UDOT), the Utah Department of 3

Health (UDOH) and Get Healthy Utah have been working together on policies, programs, 4 projects and metrics that advance the consideration of health in transportation decision-making. 5 While Utahns are generally healthier and enjoy longer life expectancies than residents in other 6 states, Utah still faces significant challenges and is on the same trajectory as the rest of the 7 country for increases in obesity and chronic diseases.

8 To proactively address these challenges, the Utah State Legislature passed a law that 9 institutionalized collaboration between state agencies and required UDOT to develop a statewide 10 transportation vision. This vision outlined a quality-of-life framework that put health at the heart 11 of key transportation decision-making.

12 The partners have been working hard to implement the vision, including adding 13 transportation-related questions to official public health surveys, developing online mapping that 14 integrates health and transportation datasets, and updating the prioritization criteria for the 15 selection of transportation projects. They have also been successfully implementing programs 16 that promote active living and provide resources to local communities for active transportation 17 projects.

18 While a significant amount of work has been done, the partners are not stopping there. 19 They intend to take best practices developed by the California Healthy Places Index to create 20 their own criteria for measuring the effects of the transportation system on Utah's communities. 21 They will continue to work toward a future in which Utahns' zip code is not a stronger 22 determinant of health than their genetic code.

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1 THE INTERSECTION OF HEALTH AND TRANSPORTATION: HOW THE UTAH 2 DEPARTMENT OF TRANSPORTATION MOVES PEOPLE, NOT CARS 3

There is no question that the average American is getting sicker. While Utahns are generally 4 healthier than their counterparts in other states, they are on a similar trajectory towards higher 5 rates of chronic disease and poor health. So, what is *driving* this poor health? The answer may be 6 more literal than industry researchers and practitioners originally thought. 7 Historically, researchers focused on how transportation planning decisions produced 8 negative externalities such as air pollution, noise, and speed-related safety issues. In the early 9 2000's, researchers shifted toward an emphasis on more upstream factors such as land use

10 planning, the accessibility of grocery stores and health services, and the walkability of a 11 community.

12 A growing body of research on the national level regarding these upstream factors 13 reinforces the idea that there is a strong relationship between transportation and public health. 14 For example, organizations such as the American Public Health Association (APHA) (2), FHWA 15 (3), and Safe Routes to School National Partnership (4) have produced several reports showing 16 how a well-functioning, multimodal transportation system is a key component of a healthy 17 community. The relationship between public health and transportation is particularly apparent as 18 it relates to its disparate impacts on diverse and underserved communities. 19 Researchers now widely acknowledge that a well-connected community that provides 20 active transportation choices such as biking and walking can improve health for generations. 21 Transportation is a key component of social determinants of health because one's personal health 22 is often closely tied to access to employment and educational opportunities, medical services, 23 and options for healthy living. Since the majority

of trips in the United States (U.S.) are three 24 miles or less, (1) there is a great opportunity for Americans to be more physically active. 25 For the past five years, the Utah Department of Transportation (UDOT) has worked 26 closely with its partners, including the Utah Department of Health (UDOH) and Get Healthy 27 Utah, to institutionalize its cross-sector collaboration and develop metrics that meaningfully 28 integrate health considerations in important decision-making regarding transportation project 29 selection and prioritization. This paper will outline the ways that Utah has developed and applied 30 specific metrics to advance the consideration of health in transportation decision-making by 31 effectively leveraging cross-sector collaboration and institutional relationships the “Utah Way.” 32

33 Where the Rubber Meets the Road: Cross-Sector Collaboration in Utah 34 Utah’s transportation and health leaders have a long history of working collaboratively to solve 35 challenging issues and recognize that transportation decision-making directly impacts health. 36 While the ability to collaborate on difficult issues is not unique to UDOT, the agency has been 37 uniquely successful in getting results. Utah is the youngest and fastest-growing state in the 38 country. It boasts the nation’s lowest unemployment rate and regularly tops the charts on leading 39 national economic indicators. In addition, its population is generally healthier and enjoys a 40 longer life expectancy than residents in many other states.

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1 While these are laudable metrics, Utahns still face significant challenges, particularly 2 among diverse and underserved communities that have been disproportionately affected by fewer 3 historical investments in transportation. This was particularly evident in 2020 during a once-in-a 4 century global pandemic in which COVID-19 impacted nearly every aspect of life in Utah and 5 around the world.

6

7 Road Sickness: The COVID Effect

8 At the advice of public health officials, Utahns abruptly and dramatically changed their 9 behaviors to mitigate the spread of the virus. This included "shelter-in-place" measures that 10 reduced vehicle miles traveled on Utah roads by up to 50%. Adherence to social distancing 11 guidelines during temperate weather conditions in the early days of the pandemic led many 12 Utahns to drive less and recreate more. This increased biking and walking across the state as 13 more people used trails and sidewalks in unprecedented numbers. The demand for these 14 activities was so great that Salt Lake City temporarily closed some roads to vehicular traffic to 15 accommodate cyclists and pedestrians.

16 Unfortunately, Utah's Hispanic community and Tribal Nations were disproportionately 17 impacted by the COVID-19 pandemic. Even though Hispanics represented approximately 14% 18 of the state's population, they comprised approximately 34% of total infections. In Tribal 19 Nations, Native Americans were much more likely to die from the virus than their white 20 counterparts, with a fatality rate per 1,000 cases at 60.2 compared to the statewide average of 21 13.8%. (5)

22 Some of the underlying systemic issues that negatively impacted diverse and 23 underrepresented communities' susceptibility to COVID-19 related to fewer active transportation 24 options such as sidewalks, bike lanes and trails, fewer health care facilities, and limited healthy 25 food options. Over

time, these factors had contributed to underlying chronic health conditions 26 such as heart disease and diabetes that increased the severity and mortality for individuals 27 infected with COVID-19. For example, lower-income residents living on the westside of Utah's 28 most populous and diverse county, Salt Lake County, have had the greatest need for transit 29 service and active transportation options but have been less well served by them compared to 30 their more affluent neighbors on the east side.

31 To address both the urgent health needs and the underlying systemic issues associated 32 with them, then-Governor Gary Herbert formed a multicultural subcommittee composed of 33 representatives from diverse and underrepresented communities. (6) The subcommittee met 34 regularly with the Utah COVID-19 Task Force to advise them on health and transportation 35 issues. UDOT served on the multicultural subcommittee and actively worked to identify 36 opportunities to reduce their risk factors through long-term planning and short-term active 37 transportation initiatives. While COVID brought greater urgency to how transportation decision 38 making affects health outcomes, the efforts to address these issues had been years in the making.

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1 **An Epoch Move: Establishing the EPICC Program**

2 In July 2013, the Healthy Living through Environment, Policy and Improved Clinical Care 3 (EPICC) program was formed within the Utah Department of Health (UDOH). (7) The program 4 was an amalgamation of three existing Bureau of Health Promotion programs, as well as the 5 addition of one new program. The previous Heart Disease and Stroke Prevention Program 6 (HDSPP); Diabetes Prevention and Control Program (DPCP); Physical Activity, Nutrition and 7 Obesity (PANO); and newly added School Health programs were merged through a new funding 8 opportunity from the Centers for Disease Control and Prevention (CDC). EPICC was organized 9 into four health domains that aligned with past disease-specific programs and focused more on 10 collaboration with external partners than ever before. As defined by the CDC, these health 11 domains included:

12 • *Epidemiology and Surveillance*. Gather, analyze, and disseminate data and information, 13 and conduct evaluation to inform, prioritize, deliver, and monitor programs and 14 population health.
15 • *Environmental Approaches that Promote Health*. Focus on improvements in social and 16 physical environments make healthy behaviors easier and more convenient for 17 Americans.
18 • *Health Systems*. Health system interventions to improve the effective delivery and use of 19 clinical and other preventive services in order to prevent disease, detect diseases early, 20 and reduce or eliminate risk factors and mitigate or manage complications. 21 • *Community-Clinical Linkages*. Strategies to improve community-clinical linkages 22 ensuring that communities support and clinics refer patients to programs that improve 23 management of chronic conditions.

24

25 With the restructuring, EPICC staff knew they had a prime opportunity to do things 26 differently. They immediately named a full-time physical activities coordinator to work closely 27 with UDOT on transportation planning improvements. Through a series of meetings, the 28 establishment of several committees, and other fortuitous developments, a strong collaborative 29 partnership developed between UDOH, UDOT, and a state-funded non-profit organization 30 named Get

Healthy Utah.

31

32 **Get Healthy Utah: A Call to Action**

33 As an organization, Get Healthy Utah was exactly as its name suggested- a call to action that 34 encouraged Utahns to live healthier lifestyles. In 2013, stakeholders from a variety of sectors, 35 including business, university, public health, health care, and government, founded Utah Leaders 36 for Health (ULH) as a new program within UDOH.

37 A couple of years later, ULH was established as an independent non-profit, rebranded 38 itself to Get Healthy Utah, and named Utah’s former Lieutenant Governor and CEO of the Utah 39 Hospital Association, Greg Bell, as its leader. Since its establishment, Get Healthy Utah has been 40 a key player in health-related policy discussions and implementation. Its mission is to create a

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1 culture of health by engaging multi-sector stakeholders, building partnerships, providing 2 resources and connecting efforts that support healthy eating and active living. 3 In 2016, the organization conducted an extensive, first-of-its-kind study to assess Utahns’ 4 values related to healthy behaviors. (8) Values-based messaging had proven effective in other 5 sectors to motivate behavioral change so Get Healthy Utah decided to give it a try. They hired 6 Heart + Mind Strategies and Envision Utah as third-party consultants to conduct the Utah Health 7 Values Study. The research process began with in-depth interviews that explored thought 8 patterns and associations related to health and healthy behaviors. The next step was “laddering” 9 in which they peeled back the layers of an individual’s decision-making to identify the most 10 significant attributes, the emotional benefits of those attributes, and the underlying personal 11 values.



The ladders of individual decision-making, as identified in values-based research.

12

13 The organization developed an online survey using the interview results and over 1,000 14 Utahns took it. What Get Healthy Utah found was both surprising and informative. According to 15 the survey, Utahns were in denial. They underestimated both Utah’s obesity problem and their 16 own personal struggles with weight. Many indicated they were in good health while also self 17 identifying as obese.

18 Based on their research, Get Healthy Utah knew it would be important to communicate 19 both the rational reasons for living healthier, as well as the emotional motivators tied directly to 20 Utahns’ personal values. Working closely with UDOT, UDOH, and many others, Get Healthy 21 Utah developed a toolkit called the “Small Steps for Better Health Toolkit” to provide vital 22 resources to local communities across the state in helping Utahns take small steps in their 23 everyday lives to improve their health. (9) Recognizing that Utahns value strong families, hard 24 work, and time outdoors, all of which require good health, the toolkit identified a process for

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1 state and local policy makers to help Utahns see the problem and believe in a solution, remove 2 barriers to achieve the solution, and provide ongoing support.

3 Building on their successful efforts to provide resources to communities via the toolkit, 4 Get Healthy Utah worked with UDOH, UDOT, the Utah League of Cities and Towns, and many 5 others to develop a “Healthy Utah Community” designation program. The program was designed 6 to highlight communities that actively support and improve the health of their residents. To 7 qualify for the Healthy Utah Community designation program, all cities must have what Get 8 Healthy Utah calls a “Community Coalition” and employ at least six other strategies identified 9 by the organization in the following four categories: Access to Healthy Food, Active Living, and 10 Mental Health. Participation in UDOT’s Move Utah program is included as one of the criteria for 11 the Healthy Utah Community designation. (10)

12

13 **Move Utah: Active, Healthy, Connected Communities**

14 Around the same time that UDOH created EPICC and Get Healthy Utah was established, UDOT 15 established a new program called, Move Utah. Move Utah is an active transportation community 16 planning program funded jointly by UDOT and UDOH, in close collaboration with Get Healthy 17 Utah, the Utah Transit Authority, metropolitan planning organizations (MPOs) and others. (11)

18 The program provides resources and technical assistance directly to local communities across 19 Utah. Its goal is to foster active, healthy, connected communities through robust planning and 20 implementation of biking and walking initiatives, programs and projects. Communities work 21 with planning officials and local health department staff to identify locations needing attention, 22 gain public support for changes, and implement built environment changes that promote safe and 23 healthy routes to everyday destinations.

24 The Move Utah program hosts an annual summit that brings together over 600 25 transportation and health officials across Utah to collaborate, share best practices, and advance 26 the understanding of the impacts of health in transportation decision-making. Move Utah 27 program leads assemble a steering committee composed of representatives from UDOH, Get 28 Healthy Utah

and other partners to help oversee the content and structure for event 29 programming. Every year, they invite a nationally recognized keynote speaker to address the 30 intersection of health and well-being. (12)

31

32 A VEHICLE FOR CHANGE: UTAH'S TRANSPORTATION VISION 33 While UDOT, UDOH and Get Healthy Utah were already coordinating closely on efforts like 34 Get Healthy Utah's community health designations and toolkit, as well as Move Utah annual 35 summits and other efforts, Utah policy makers saw an opportunity to institutionalize the 36 collaboration.

37 In 2018 during the General Session of the Utah State Legislature, state lawmakers passed 38 Senate Bill (S.B.) 136, Transportation Governance Amendments. (13) S.B. 136 was a 39 comprehensive bill aimed at improving long-term transportation planning in Utah. It directed 40 UDOT to develop strategic initiatives across all modes of transportation and created a new

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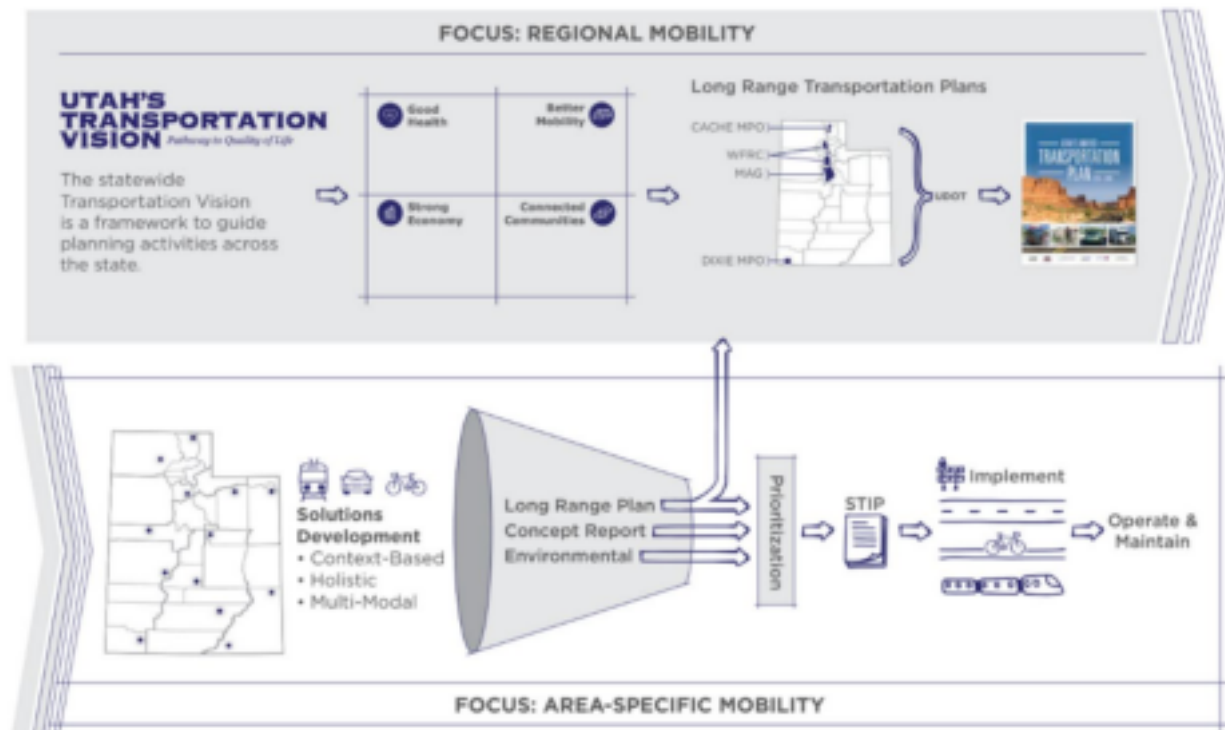
1 Deputy Director position within the agency whose responsibilities included developing a 2 statewide transportation vision.

3 UDOT worked closely with its partners to establish this first-ever statewide 4 transportation vision. (14) They brought together a diverse group of stakeholders, including 5 business leaders, elected officials, advocacy organizations, non-profits, MPOs, transit agencies, 6 and many others. Together, the stakeholders built a Quality-of-Life Framework that included the 7 following pillars:

8 • Good Health. Encompasses the health of individuals and communities, recognizing the 9 role of active transportation in mental and physical health as well as environmental 10 conditions contributing to health such as air quality and water quality. 11 **• Better Mobility.** Addresses traditional transportation objectives to reduce delay. The 12 thinking that goes beyond just moving cars to moving people. Public transit, walking and 13 biking need to become real options for more Utahns.

14 • Strong Economy. Recognizes the vital role of transportation in business and commerce. 15 Not just at the intra-state and inter-state levels, but also how transportation can help inter 16 city and intra-city economies.

17 • Connected Communities. Points to the intersection of transportation and land use as 18 well as the need for intermodal connections between walking, biking, transit and vehicle 19 travel.



The graphic represents the UDOT project delivery process. This process includes visioning, planning, solutions development, project prioritization and implementation. Move Utah will play an integral role in relevant phases of project delivery.

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1 Knowing Your Lane: How Utah Stakeholders Worked Together

2 Utah's Transportation Vision provided UDOT, UDOH, and Get Healthy Utah with a clear 3 blueprint for action. Each entity worked within its respective spheres of influence and expertise 4 toward a shared vision to improve Utahns' quality of life. For example, through its data 5 collection efforts on health behaviors and outcomes, UDOH created Small Area Populations 6 (SAP) designations in specific geographical areas across the state based on population size. (15) 7 The SAPs have helped UDOH better understand what may be influencing social determinants of 8 health in communities across Utah. Understanding the factors that influence health outcomes and 9 health disparities is key to understanding the approaches needed to mitigate them.

10 To better understand social determinants of health, UDOT, UDOH, the MPOs, and the 11 Utah Transit Authority worked together to develop and fund a question on the Behavioral Risk 12 Factor Surveillance System (BRFSS) about transportation. According to the Centers for Disease 13 Control and Prevention (CDC), the BRFSS is the nation's premier system of health-related 14 telephone surveys that collect state data from U.S. residents regarding their health-related risk 15 behaviors, chronic health conditions, and the use of preventive services. Established in 1984 with 16 15 states, the BRFSS now collects data in all 50 states, as well as the District of Columbia and 17 three U.S. territories. BRFSS completes more than 400,000 adult interviews each year, making it 18 the largest continuously conducted health survey system in the world.(16) 19 Adding transportation-related questions to Utah's BRFSS was a fairly novel approach 20 since it had traditionally been a public

health survey. The partners worked with the Utah 21 Governor’s Office on Planning and Budget to identify specific high-impact measures that could 22 be assessed within the BRFSS. Representatives from these agencies and organizations met for 23 several months to discuss how the data would be collected and evaluated, and how it could be 24 integrated into their respective processes. Suggested questions were discussed and ranked by a 25 representative from each agency. The stakeholders finalized the wording for the questions and 26 have submitted them for inclusion in the 2022 BRFSS survey:

27

28 Access to Transportation Question

29 BRFSS 2021

30

31 1. In the past 12 months, has lack of transportation ever kept you from appointments, meetings, 32 work, or from getting things needed for daily living?

33 Yes

34 No

35 DON’T KNOW / NOT SURE

36 REFUSED

37

38 2. When a lack of transportation kept you from appointments, meetings, work, or from getting 39 things done for daily living, what type of transportation were you trying to take? 40 Car

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1 Bus or train (TRAX, FRONTRUNNER)

2 Walking

3 Bike or scooter

4 Rideshare

5 Other

6 DON’T KNOW / NOT SURE

7 REFUSED

8 Healthy Equity: Measuring the Disparate Impacts of Transportation on Underserved 9 Communities

10 In 2019, UDOH created a Health Improvement Index (HII), a tool that measures health equity 11 across communities. (17) The HII includes a variety of factors, including education level 12 attained, median family income, income disparities, owner-occupied homes, labor 13 force/unemployment rate, families below the poverty level, and the percentage of children living 14 in single parent homes. The HII, when layered over Small Areas, can provide insights about 15 social variables that impact a given community’s health.

16 While Utah is known for being more physically active than other states, Utah’s physical 17 inactivity rate has stayed relatively constant over the past decade. Nearly 19% of Utahns report 18 not participating in any physical activity in the past month. In areas where the HII is high or very 19 high (i.e.- the area is very high in health disparities) the age-adjusted percentage is 21.5%. 20 Conversely,

in areas where the HII is low or very low, the age-adjusted percentage is only 14%. 21 (18) This difference is significant and highlights the importance of addressing transportation 22 access, including access to transit, biking and walking.

23 Including community health, in particular the HII, is critical to addressing not only 24 health inequities that can be exacerbated by the lack of inclusion in transportation planning, but 25 equitable access to resources and opportunities throughout the community. UDOT, UDOH and 26 Get Healthy Utah recognized that each community had its own unique set of challenges. These 27 challenges included the physical built environment, psychosocial, economic, and historical 28 barriers. Solutions to address these challenges would need to be developed within the context of 29 each community, tailored to their specific needs, and addressed early in the decision-making 30 process.

31

32 Taking the High Road: How UDOT and its Partners Changed the Game 33 To address these health disparities, UDOT worked with their partners to identify the key health 34 measures that would be directly affected by their transportation projects. They identified physical 35 inactivity, obesity, self-reported fair or poor health, and the community's HII ranking. This first 36 ever inclusion of health metrics directly into the process for transportation project prioritization 37 was a game changer. In Utah, never before had poor health been tied so directly to funding 38 decisions about transportation projects. This signaled a recognition by UDOT and its partners 39 that the transportation system was a fundamental building block of a community that directly 40 impacted public health and that they were willing to do something about it.

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1 Physical inactivity now accounts for 20% of the Good Health Score in UDOT's 2 prioritization matrix. The other two measures included in the Good Health Score are the safety 3 component index and air quality designation status. (19) The physical activity measure assesses 4 the percent of the population aged 18 years and older within Utah Small Area Health Statistical 5 Areas that do not meet recommended physical exercise guidelines. Guidelines for aerobic 6 physical activity are defined as 150 minutes per week of moderate-intensity activity, or 75 7 minutes of vigorous-intensity activity, or an equivalent combination of moderate-vigorous 8 intensity activity. (20) Projects are scored based on the percent of the population that is not 9 achieving these physical activity guidelines).

10 UDOT, UDOH and Get Healthy Utah will continue to monitor HII and Small Area data 11 to identify if any changes in health disparities or health outcomes more generally are reduced 12 from the transportation planning process. The partners will continue to involve not only public 13 health program staff in this process, but also epidemiologists and evaluators to identify changes 14 in health status over time. Of course, as with most outcomes of transportation efforts, changes in 15 health outcomes are not expected for many years, if not decades.

16 Roadmap for Action: A Deeper Dive into UDOT's Transportation Project Prioritization Process 17 To align the transportation project prioritization process with Utah's Transportation Vision, the 18 Utah Transportation Commission, in consultation with UDOT, UDOH, the MPOs, transit 19 agencies, local planners, and other partners such as Get Healthy Utah, developed a prioritization 20 process to guide the decision-making process for programming Transportation Investment Fund 21 (TIF) and

Transit Transportation Investment Fund (TTIF) monies for transportation capacity 22 projects. (19) 23 There are two programs where the prioritization process and decision support models are 24 used; the Transportation Investment Fund (TIF) and Transit Transportation Investment Fund 25 (TTIF). TIF funds can be used to fund highway capacity projects as well as stand-alone active 26 transportation capacity projects. TTIF funds can be used to fund capital transit capacity projects 27 as well as first and last mile transportation capacity projects with a direct connection to a transit 28 station. Four unique models are used in the prioritization process, one for each of the following 29 eligible project type:



UDOT

*funding programs*30

31 Each model uses 12 shared common criteria for prioritizing projects, with the 32 Utah Transportation Vision Quality-of-Life Framework serving as the four outcome areas. 33 Common criteria were developed with input from key stakeholders and remain consistent across 34 all of the decision models. The data and methodology to measure the criteria are different

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1 depending on the decision support model. Additionally, the weighting criteria may also change 2 over time. For example, the TIF Highway Model measures throughput as the daily volume on a 3 segment of roadway, while the TTIF Transit model measures throughput as the added ridership 4 to the transit system from the proposed project.

5 Within the Good Health outcome area there are three criteria used to assess projects: Safety, 6 Public Health, and Environment. Safety is the criteria with the most weight at 60%, while Public 7 Health and Environment both account for 20%. Safety is assessed for active transportation 8 projects in the following two ways:

9 • *Non-Motorized Safety*: This measure evaluates non-motorized crash history within a 500- 10 foot buffer of the project extent. UDOT safety databases are used to determine the total 11 number of non-motorized crashes by type over 5 years. Crash severity types are 12 normalized using the FHWA's Equivalent Property Damage Only scale to produce a total 13 number of crashes along a project extent. Projects are scored based on the total number of 14 normalized non-motorized crashes.

15 • *Safety Component Index*: This measure assesses the extent of separation between the 16 active transportation facility and vehicle lanes of travel. Projects are scored on a 1- to 3- 17 point scale. Projects that provide a bike lane, sidewalk, or crossing improvement receive 18 a 1. Projects that provide a protected bike lane or protected crossing receive a 2. Projects 19 that provide a multi-use path or grade separated crossing receive a 3. Project descriptions 20 from UDOT approved plans will be used to determine this measure. 21 Public Health is assessed for active transportation projects using the following measure: 22 • *Physically Inactive*: This measure assesses the percentage of the

population aged 18 years 23 and older within Utah Small Area Health Statistical Areas that do not meet recommended 24 physical exercise guidelines. Guidelines for aerobic physical activity are defined as 150 25 minutes per week of moderate-intensity activity, or 75 minutes of vigorous-intensity



Twelve shared common criteria for prioritizing projects within the Utah Transportation Vision Quality of Life Framework.

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1 activity, or an equivalent combination of moderate-vigorous intensity activity. Projects 2 are scored based on the percentage of the population that is physically inactive (not 3 meeting activity guidelines).

4 Environment is assessed for active transportation in the following two ways: 5 • *Air Quality Designation*: This measure evaluates the potential of a project to mitigate air 6 quality issues. Projects are scored based on their current attainment designation for either 7 Ozone or PM 2.5 according to the Utah Division of Air Quality. Projects receive either 0, 8 1, or 2 points. 0 points are awarded for

projects in areas with no current designation, 1 9 point is awarded for projects in areas in nonattainment or maintenance areas, and 2 points

10 are awarded for projects located in areas that may become a nonattainment area in the 11 near future. If a project extends into two or more designation areas, the area that the 12 majority of the project extent falls within will be used for scoring purposes. 13 • *Environmental Feature Index*: This measure evaluates whether a project includes 14 environmental features, enhancement, improvements, or components that may provide 15 environmental benefits and contribute to greater utilization. Project sponsors provide 16 information on features included in environmental documents or designs to be evaluated 17 by UDOT Statewide Planning. Projects are scored as a 0 (no related environmental 18 features) or 1 (project includes habitat, native landscaping, educational features or if the 19 project includes streetscape plantings, aesthetic landscaping, etc.). 20 All of the measures within the Good Health outcome area attempt to strike a balance 21 between minimizing complexity, creating a meaningful and outcome focused assessment, and 22 data availability. UDOT plans to continue working with partners like UDOH and Get Healthy 23 Utah to update the measures regularly.

24 While the inclusion of public health in transportation project selection and prioritization 25 is an exciting, major step forward, UDOT did not stop there. The agency undertook a significant 26 effort to update its vision and mission statements, which are now respectively “Keeping Utah 27 Moving” and “Enhancing Quality of Life through Transportation.” (21) Agency officials explain 28 that their job is to “move people, not cars.” This signals a paradigm shift as UDOT has gradually 29 evolved from an agency that prioritized cars to one that prioritizes people and their quality of 30 life.

31

32 **DOWN THE ROAD: UTAH HEALTHY PLACES INDEX**

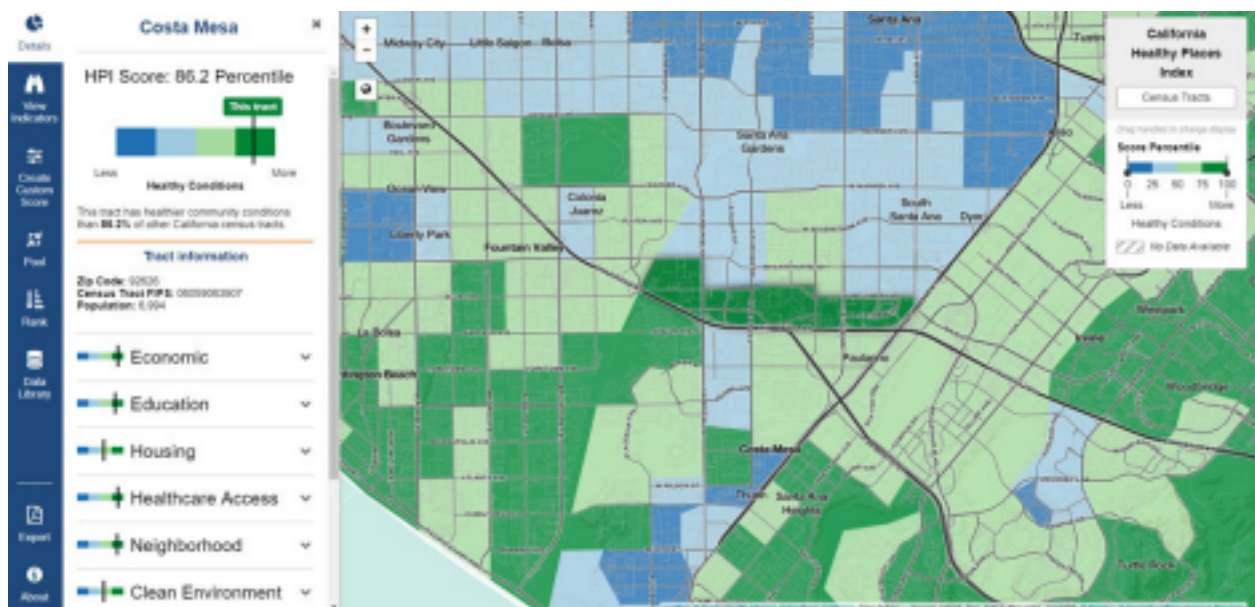
33 UDOT, UDOH and Get Healthy Utah intend to build on their solid foundation of 34 institutionalized collaboration to continue developing metrics that advance the consideration of 35 health in transportation decision-making. Taking best practices developed for the California 36 Healthy Places Index, the partners are developing their own criteria to measure how the 37 transportation system affects the health of Utah’s communities.

38 According to their website, the California Healthy Places Index (HPI) is a powerful new 39 tool developed by the Public Health Alliance of Southern California to assist the public in 40 exploring local factors that predict life expectancy. The HPI provides overall scores for each

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1 community across the state, as well as detailed data on specific policies to improve health, 2 housing, transportation, educational opportunities, etc. (22)

3



An example of the California Healthy Places Index, online interactive map for Costa Mesa, California.

4 UDOT and its partners are currently conducting in-depth research into their own datasets 5 to determine which ones would be best suited for inclusion in a Utah Healthy Places Index. 6 Datasets currently being considered include proximity to a grocery store, safe routes to schools, 7 access to a hospital or health clinic, transit service and frequency, active transportation facilities, 8 roadway fatalities/injuries, and many others. The partners intend to create an online interactive 9 map that overlays agreed-upon datasets with existing layers such as the HPI and the existing 10 transportation system. The result will be a publicly accessible, easy-to-use map that provides 11 granular level detail regarding health and transportation data statewide. Information will be 12 included that helps to inform policy making for future transportation and health-related planning 13

and funding decisions.

14

15 **Zip code: A Stronger Determinant of Health than Genetic Code**

16 Utah has developed and applied specific metrics to advance the consideration of health impacts 17
in transportation decision making by effectively leveraging cross-sector collaboration and 18
institutional relationships the “Utah Way.” Through a multifaceted approach that includes robust 19
collaboration on policies, programs, projects and metrics, UDOT, UDOH, and Get Healthy Utah 20
have laid the groundwork both literally and figuratively for improving health outcomes through 21
better transportation decision-making in Utah.

22 Working together for nearly a decade, the partners have established programs that 23 provide
resources and technical assistance to communities, identified shared datasets that have

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1 directly improved the transportation project prioritization process, and informed policy changes 2
to allocate funding based on an integrated consideration of transportation and health. UDOT 3
recognizes that their mission is to enhance quality of life through transportation by moving 4
people, not cars. UDOT and its partners will continue to work toward a shared future in which 5
Utahns’ zip code is not a stronger determinant of health than their genetic code.

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REFERENCES

- (1) Litman, T. (2011). Short and sweet: Analysis of shorter trips using national personal travel survey data. Victoria Transport Policy Institute. www.vtpi.org/short_sweet.pdf. Accessed Jul. 1, 2021.
- (2) Reports and Fact Sheets (2021). American Public Health Association. www.fhwa.dot.gov/planning/health_in_transportation/resources/#a3. Accessed Jul. 17, 2021.
- (3) Health in Transportation-Resources (2020). Federal Highway Administration. www.fhwa.dot.gov/planning/health_in_transportation/resources/#a3. Accessed Jul. 21, 2021.
- (4) At the Intersection of Active Transportation and Equity: Joining Forces to Make Communities Healthier and Fairer (2015). Safe Routes to School National Partnership. www.apha.org/-/media/Files/PDF/topics/environment/SRTS_ActiveTranspEquity_report_2015.ashx_on_7/11/2021. Accessed Jul. 21, 2021.
- (5) Coronavirus Case Counts (2020). Utah Department of Health. Retrieved from <https://coronavirus.utah.gov/case-counts> Accessed Sept. 19, 2020.
- (6) Utah Multicultural Advisory Committee. State of Utah (2020) www.multicultural.utah.gov/multicultural-advisory-committee/ Accessed Jul. 30, 2021.
- (7) Healthy Living Through Environment, Policy & Improved Clinical Care. (2021). Utah Department of Health. <https://choosehealth.utah.gov/about-us/our-program.php>. Accessed Jul. 30, 2021.
- (8) Utah Health Values Study. (2015). Get Healthy Utah. www.gethealthyutah.org/what-is

- [the-utah-health-values-study/](#). Accessed Jul. 30, 2021.
- (9) Healthy Utah Toolkit. (2018). Get Healthy Utah. www.gethealthyutah.org/toolkit/; Accessed Jul. 30, 2021.
- (10) Healthy Utah Community (2021). Get Healthy Utah. <https://gethealthyutah.org/healthyutahcommunity/>. Accessed Jul. 21, 2021. (11) Move Utah Program. (2018). Utah Department of Transportation. <https://move.utah.gov/>. Accessed Jul. 30, 2021.
- (12) Move Utah Summit. (2019). Utah Department of Transportation. <https://move.utah.gov/move-utah-summit-2019/>. Accessed Jul. 21, 2021. (13) Senate Bill 136, Transportation Governance Amendments. (2018). Utah State Legislature. <https://le.utah.gov/~2018/bills/static/SB0136.html>. Accessed Jul. 21, 2021. (14) Utah Transportation Vision. (2018). Utah Department of Transportation. <https://uvision.utah.gov/>. Accessed Jul. 21, 2021.
- (15) Utah Small Area Information (2020). Indicator Based Information System for Public Health. <https://ibis.health.utah.gov/ibisph-view/pdf/resource/UtahSmallAreaInfo.pdf> on 7/21/2021. Accessed Jul. 17, 2021.
- (16) Behavioral Risk Factor Surveillance System. (1984). Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/index.html>. Accessed Jul. 21, 2021. (17) Utah Health Improvement Index. (2020). Utah Department of Health. <https://health.utah.gov/disparities/data/ohd/UtahHII.pdf> Accessed Jul. 21, 2021.

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- (18) Physical Activity Indicator (2021). Public Health Indicator Based Information System (IBIS). <https://ibis.health.utah.gov/ibisph-view/topic/PhysicalActivity.html>. Accessed Jul. 21, 2021.
- (19) Project Prioritization Process. (2021). Utah Transportation Commission. <https://www.udot.utah.gov/connect/about-us/commission/project-prioritization-process/>. Accessed Jul. 21, 2021.
- (20) Strategic Direction. (2018). Utah Department of Transportation. <https://www.udot.utah.gov/strategic-direction/>. Accessed Jul. 21, 2021. (21) California Healthy Places Index. (2021). Public Health Alliance of Southern California. <https://healthyplacesindex.org/>. Accessed Jul. 21, 2021.