

17-01

STATEMENT OF POLICY

Transportation and Health

Policy

To help improve the health of people in their community, local health departments can become involved in regional and local transportation policies, programs, and projects by building partnerships with key stakeholders, educating and building the capacity of their staff, and actively participating in local planning activities.

The National Association of County and City Health Officials (NACCHO) recommends:

Federal, state and local governments should:

- Adopt “Health in All Policies” (HiAP) approaches in the transportation sector to ensure that transportation policies and projects have positive or neutral impacts on the determinants of health and that public health considerations are systematically and formally integrated into transportation planning, design, and decision-making processes.¹ These approaches may additionally be used to develop health-related performance measures for transportation plans and projects.
- Encourage shifts from individual automobile reliance to walking, biking, and public transportation use in order to increase opportunities for active transportation and improve air quality by reducing vehicle emissions of air pollutants.
- Design and plan for transportation systems that provide reliable, energy-efficient, and affordable access to and connection between jobs, schools, healthcare services, healthy food options, and other vital destinations.
- Improve access to public transportation for all users by accommodating older adults and people with disabilities.
- Improve connectivity between multiple modes of transportation, such as biking, walking or rolling, and public transportation.
- Ensure that the design of the entire roadway incorporates all users, including pedestrians of all ages and abilities, bicyclists, and public transportation vehicles and riders through increased representation of underrepresented groups on transportation boards and commissions.
- Improve transportation quality by ensuring dependable public transportation service, and transportation safety through design such as traffic calming measures, improved lighting, and reduction in speed limits.
- Encourage improved coordination of local land use decisions and transportation planning through comprehensive regional planning.



Local health departments should:

- Build partnerships with the transportation planning entities and other stakeholders around transportation design, use, and safety.
- Build capacity to participate in local and regional transportation planning activities through the use of HiAP approaches, such as Health Impact Assessments (HIA),² or other health lens analyses, and strategies to incorporate health considerations in public decisions.
- Actively participate in transportation planning activities, such as Technical Advisory Committees, and ensure that health and equity perspectives are included in the development of transportation and land use plans and key projects.³
- Actively pursue financial support and/or funding to support the implementation of recommended strategies aimed at increasing the consideration of health in transportation-related decisions.

Justification

Across the United States transportation systems shape communities and individual's opportunities for good health. The current structure for developing and funding the nation's highways and transit infrastructure has promoted the creation of a transportation system that is not always consistent with public health goals and objectives.⁴ Policies enacted in the mid-twentieth century have led to an overreliance on personal motor vehicles. Many unintended environmental, social, and health consequences have resulted. Among these are injuries and deaths from motor vehicle accidents; decreased physical activity and associated increases in obesity, diabetes, heart disease, stroke and other chronic conditions; development of communities not safe for biking or walking; isolation of vulnerable populations including older adults, people of lower socio-economic status, and people with disabilities from much needed services; growing stress among commuters; and proliferation of greenhouse gases (GHG) and other air pollutants which are linked to adverse respiratory and cardiovascular health effects.^{5,6}

In addition to devastating human loss, motor vehicle crashes present a significant national cost in lost wages and productivity, medical expenses, administrative expenses, employer costs and property damage. The estimated cost of motor vehicle deaths, injuries and property damage in 2014 was \$288.9 billion.⁷ Pedestrians in high density, low-income areas are at greater risk of collisions with motor vehicles. The causes of motor vehicle accidents are multi-faceted, but such incidences may be due to higher population densities, greater traffic volume, and lower prevalence of car ownership among low-income residents.⁸ According to the Federal Highway Administration, about 5,000 pedestrians are killed in traffic accidents each year, comprising approximately fourteen percent of all traffic fatalities.⁹ In 2013, fatalities among cyclists involving traffic accidents comprised over two percent of all traffic fatalities, approximately 743 individuals.¹⁰ As greater numbers of people begin to rely on alternative forms of transportation, there will be greater opportunities for interaction between cyclists, pedestrians and drivers. In particular, cyclists suffer a higher rate of death in collisions than automobile drivers. Proper planning and improved consideration of health could improve these conditions and provide safer roads for all users.¹¹

The overreliance on personal motor vehicles as the primary mode of transportation for a large majority of people has contributed to decreased rates of physical activity in the United States. A

study found that people living in automobile-oriented communities had almost double the rate of obesity as pedestrian-oriented communities.¹² Each additional hour spent driving is associated with a six percent increase in the likelihood of obesity.¹³ Today, fewer than a quarter of American adults meet the Centers for Disease Control and Prevention's (CDC) recommended daily physical activity levels, and only three in ten high school students get at least an hour of physical activity each day.¹⁴ The decrease in physical activity has been linked with negative health impacts such as increasing rates of obesity, heart disease, stroke, type 2 diabetes, and certain types of cancer.¹⁵

Transportation and land use patterns can have beneficial effects on health by encouraging and shaping opportunities for physical activity.¹⁶ Studies show that residents of urban environments, where reliance on cars is minimal, have higher rates of walking and lower rates of obesity and hypertension.¹⁷ Public transit systems are also associated with increasing the likelihood that transit users will walk for at least 30 minutes throughout the day.¹⁸

The transportation sector is a significant source of air pollutants, such as GHGs and particulate matter, which have substantial impacts on public health.¹⁹ Exposure to air pollutants from vehicle emissions has been linked with increased rates of asthma, exacerbated asthma, upper respiratory infections, and lung and heart diseases.²⁰

Public transit produces significantly less pollutants than comparable private automobiles use.²¹ Furthermore, integrated transportation and land use planning strategies can improve access to and encourage use of public transportation options, bicycling, and walking which in turn improve air quality. However, it is important to note that walking and bicycling may actually increase exposure to existing levels of air pollution by increasing time spent outdoors within proximity to vehicles and pollutants.²²

Access to a diverse array of transportation options is important for the health of our communities. Having access to transportation increases economic opportunities within the community by connecting people with jobs and educational opportunities. It also improves connectivity to social support systems, health care facilities and grocery stores. The U.S. Department of Agriculture's (USDA) Economic Research Service found that while 60% of communities across the country have public transportation systems, service is often limited and in need of improvement.²³ While urban areas are more likely to have highly developed public transportation systems, particular populations including older adults, lower income residents, and people with disabilities are often unable to access these systems due to factors related to geography, infrastructure, or economics.^{24,25}

Evidence shows a correlation between the design of land-use and transportation projects, and health implications. For example, community design and the condition of the built environment are associated with how much physical activity an individual accomplishes per day.^{26, 27} Investing in infrastructure such as public transit systems, sidewalks, and using a complete streets design approach with all users in mind, facilitates multimodal transportation and improves opportunities for physical activity.^{11, 28}

Access to affordable active transportation options can impact the level of social cohesion and crime in a community. Biking, walking, or using public transit provides opportunities for community members to interact and converse with each other, as well as increases the number of people interacting with the community. Interpersonal interaction enhances social cohesion and trust between community members, which enhances the physical and mental health of community members. Intra-community cohesion is also a key component of community resilience to emergencies. Alternatively, in suburban subdivisions that are dependent on automobiles interaction generally occurs through invitation only and contributes to social isolation. Social isolation has been linked to higher rates of mental illness and physical inactivity.²⁹

Incorporating active transportation into community design has been shown to deter criminal behavior through natural surveillance. Natural surveillance increases the number of individuals present in the community, thereby increasing the risk of being caught when conducting illicit activities. Designing an accessible and connected environment changes patterns of criminal behavior within a community and reduces crime.^{30, 31}

Evidence also demonstrates a relationship between equitable access to public transport with both crime reductions as well as with economic and/or educational opportunity. For example, King County, WA residents living in areas without reliable public transportation access can find themselves cut off from higher education opportunities. In King County, the average travel time from Rainer Beach to South Seattle Community college is 1 hour and 15 minutes, involving multiple forms of public transportation, while the same journey is roughly 18 minutes by car.³² It is understood that educational achievement significantly reduces the likelihood of incarceration.³³ Roughly 41% of all prisoners have not completed high school, compared to 18% of the general adult population.³⁴ Higher levels of education also correspond to improved health and lower rates of mortality, and lower rates of crime.³⁵ What is more, an educated workforce with access to employment opportunities can contribute more to their community's economies (i.e. taxes, purchasing power, etc.) over the course of their lifetimes strengthening support for local infrastructure.³⁶

Efficient and accessible public transportation systems provide significant opportunities for improved health, equity, and increased connectivity for communities. Designing the entire roadway for all users – including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities – will ensure that people have safe access to all modes of transportation. Such design provides opportunities for increased physical activity by incorporating features that promote regular walking, cycling, and transit use into every street, for reduced injuries and fear of injury, and for more equitable access to resources in under-invested areas where non-automobile transport is necessary.^{37,38} Developing public transit-oriented communities focused on increasing equitable access to affordable public transportation options, and incentivizing less personal automobile use can produce multiple health benefits such as improved air quality, increased physical activity, increased affordable access to jobs and other vital destinations, and economic development.^{39,40}

NACCHO defines Health in All Policies (HiAP) as a change in the systems that determine how policy decisions are made and implemented by local, state, and federal government to ensure that

policy decisions have beneficial or neutral impacts on the determinants of health. It provides a framework for local health departments to engage in issues across sectors of local government such as transportation planning and policies.¹

Educating and building the capacity of staff in local health departments will be essential for engaging with state and local planning and transportation agencies. Local health departments can build the capacity of their staff to engage in health impact assessments (HIAs), and other health lens analyses, and encourage cross-sectoral collaboration with other agencies, including local and state transportation departments.²

References

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2. A more robust discussion of Health Impact Assessment can be found on NACCHO's HIA website (<http://www.naccho.org/programs/community-health/healthy-community-design/health-impact-assessment>), and in NACCHO's policy statement on *Creating Healthier Communities through Health Impact Assessment*, available from <http://www.naccho.org/uploads/downloadable-resources/Programs/Community-Health/06-01-Health-impact-assessment1.pdf>.
3. NACCHO's Healthy Community Design Toolkit provides tools and resources that can help public health practitioners, including health department staff, learn about or further their work on the connections between public health and planning-related activities and decisions. Toolkit is available from <http://www.naccho.org/resources/toolbox>.
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Record of Action

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