

SUPPORT FOR LAND USE AND TRANSPORTATION POLICIES TO PROMOTE PUBLIC HEALTH

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The Arizona Public Health Association (AZPHA) supports transportation and land use policies that minimize impacts on the environment, maximize public health and promote sustainable communities.

The “built environment” profoundly influences human health and productivity, according to Policy 2004-04 of the American Public Health Association.¹ The built environment includes components of our environment which have been modified by human activity, including urban and suburban spaces, schools, housing, businesses, roads, sidewalks and transportation infrastructure. Determinants of public health which are influenced by the built environment include air quality, water quality, access to appropriate and safe physical activity, access to healthy foods and psychosocial factors.¹

During the last half century, changes in land use resulted in low density, single-use and geographically dispersed development in the United States and in Arizona.

Transportation became increasingly dependent on automobile travel with a decline in walking and bicycling. Residential development spreading rapidly into new areas beyond cities, called “urban sprawl,” has been accompanied by an increase in total “vehicle miles driven” and more air pollution from vehicular exhaust along roadways. These land use characteristics influence public health in a variety of ways:

Physical activity is more limited in spread-out, car-dependent communities. Public health studies link urban sprawl to decreased physical activity and increased risks of obesity, type II diabetes, cardiovascular disease, and depression.^{1,2}

Asthma prevalence rates have increased 75% nationwide since the 1970's, with a 160% increase among children under age 4. Arizona has the 4th highest prevalence in the US.³ The burden is highest among children in some social and ethnic groups and in some inner city communities. Components of vehicle exhaust, especially ozone and particulates, are known to exacerbate asthma.⁴

Heart and lung diseases are aggravated by airborne particulate pollution, especially fine particulates. In the greater Phoenix metropolitan area, 80% of particulate pollution is caused by vehicles.⁵

Motor vehicle and pedestrian fatality rates are lower in compact urban areas compared to less densely developed areas of urban sprawl.⁶

Gastrointestinal illness, cancer and developmental effects such as learning disorders can be caused by contaminants in drinking water. Children are particularly sensitive to microbial contamination from sewage and livestock manures because their immune systems are less well developed than in adults. EPA has set standards for microbial, chemical and nucleotide contaminants in public drinking water systems, but data is not available for private water systems.⁴

Transportation options such as peripheral parking, car pooling, express bus and rail systems are underdeveloped or absent in urban areas of the state. Extending mass transit services could

reduce the number of vehicles on the roads, the number of vehicle miles driven, tailpipe emissions and motor vehicle accidents.^{1, 6}

Land splits and “Wildcat Subdivisions” in unincorporated areas fall outside the stringent regulations for subdivisions. People who buy property created by simple lot splits may not realize that they might have to share unregulated wells. These wells are at risk of becoming contaminated by septic tank effluent. In addition, groundwater in many areas of Arizona contains naturally-occurring arsenic and fluoride at unhealthful concentrations.⁷

Land use and transportation patterns are determined by policy and funding at the federal, state and local levels, and by local and regional planning and decision-making practices. These policies and practices directly impact the mission of public health agencies at the local, state and federal level.

Therefore AZPHA supports policies that:

- Encourage transportation and land use legislation and regulatory initiatives that promote public health, and oppose measures that potentially threaten public health
- Manage growth and development statewide by requiring architecture, land use and transportation plans for long-term sustainability
- Protect and assure the supply of safe drinking water for the long-term benefit of the Arizona population
- Improve public health participation in transportation and land-use decisions and establish a process to assess the health impacts of proposed transportation and land use plans, policies and projects
- Require builders to plan for mass transit, sidewalks and bicycle paths in new residential developments
- Expand regional mass transit systems to reduce vehicle miles driven
- Require wildcat subdivisions to meet the same public health standards for wells and septic systems that are required of regulated subdivisions.

References

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