Good&HEALTHY
SOUTH DAKOTA COMMUNITIES

The Role of the Built Environment to Promote Physical Activity

This brief is the first in a three-part series on the built environment.
Part two focuses on nutrition and part three is tobacco use.

What is a Healthy Community?

Health can be influenced at the local level. According to the World Health Organization, health is a state of complete physical, mental, and social well-being and not just the absence of illness. A healthy community depends to a large extent on human, institutional, organizational, and environmental resources available within the community. "Healthy places are those designed and built to improve quality of life for all people who live, work, worship, learn, and play within their borders – where every person is free to make choices amid a variety of healthy, available, accessible, and affordable options."[1]

> *"Tell me your zip code, and I'll tell you how long you'll live."*
>
> Dr. Bob Ross, CEO of The California Endowment

In the last century, life expectancy in the United States has increased by 40 years. "Only seven of those years can be attributed to improvements in disease care while the rest are the result of improved prevention efforts (such as immunizations) and improved environmental conditions, including sanitation and water."[1]
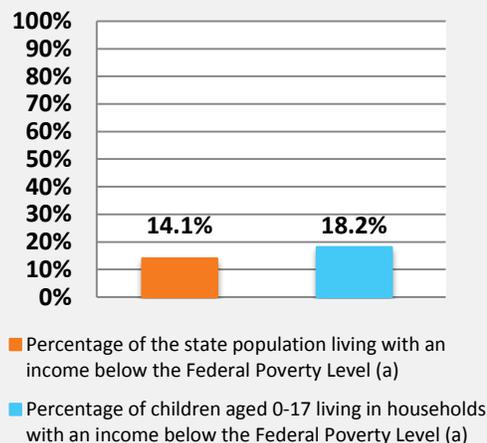
The former director of the Centers for Disease Control and Prevention's National Center for Environmental Health, Richard Jackson, MD, MPH stated, "We must be alert to the health benefits, including less stress, lower blood pressure, and overall improved physical and mental health, that can result when people live and work in accessible, safe, well-designed, thoughtful structures and landscapes."[1] The link between the community and health is undeniable.

Zip Code Defines Access to Physical Activity Opportunities

The environments in which we live have greater impact on our health and well-being than our genetics.[2] While personal choice affects individual health, the variation in uncontrollable local conditions and resources also contribute. Determinants of Health – economics and income equality, education, social inclusion and support, racial or ethnic bias, cultural factors, geography, environment, and access to quality services and resources – greatly influence a person's health and life expectancy. In South Dakota (SD), there are various factors that affect individual health, including, but not limited to geography, income, culture, race/ethnicity, social support, and access to care.

Income Factors that Affect Health in South Dakota

- Percentage of the state population living with an income below the Federal Poverty Level (a): **14.1%**
- Percentage of children aged 0-17 living in households with an income below the Federal Poverty Level (a): **18.2%**

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Social and environmental factors contribute to influencing healthy behaviors and exposure to modifiable risk factors, including physical inactivity. Specifically, the social conditions in which people are born, live, and work are the single most important determinant of one's health status.[3]

Research shows children in low-income households are more likely to be overweight or obese and less likely to be physically active.[4] The 10 poorest counties in SD are either part of or adjacent to one of nine American Indian reservations, with poverty levels from 24.5-49.9%.[5]

Access to goods and services within one's community can promote and sustain health.[6] Environmental factors contribute significantly to a person's health and physical activity behavior, specifically access to physical activity opportunities. SD is considered one the nation's most rural and frontier states, which includes 66 counties – 30 rural and 34 frontier (less than six people per sq. mile). South Dakota's rural geography greatly impacts access to physical activity opportunities. Less than half of SD youth have access to parks, community centers, and sidewalks in their neighborhood.[7]

> *"The presence of sidewalks and crosswalks, bike paths, playing fields, parks, shopping accessible on foot and public transportation – along with the perception that it's safe to be outside – contribute substantially to the average amount of physical activity that neighborhood residents achieve."[b]*

Additionally, unsafe, substandard living environments present many barriers for residents attempting to increase their activity levels. Fear of crime keeps many people indoors, as does lack of safe and pleasant parks and green spaces, or poorly maintained sidewalks. Many residents from low-income neighborhoods find it difficult, if not impossible, to afford memberships at fitness centers or to travel to cleaner, safer neighborhoods with good facilities.[6] In SD, the rate of which recreation and fitness facilities are accessible is only 12.41 per 100,000 people, leaving residents to seek other and often inaccessible physical activity opportunities.[8]

Physical Activity and the Built Environment

The *built* environment includes all the human-made structures where we live and work, greatly influencing a person's level of physical activity. The built environment refers to the physical resources and infrastructure such as buildings, homes, roads, utilities, sidewalks, parks, open spaces and other amenities within communities. Factors which influence physical activity within a community include the presence of sidewalks, safe neighborhoods, enjoyable scenery, access to parks, recreation and open spaces, access to neighborhood or school play areas and/or recreational equipment.[9, 10]

Improving the built environment to promote active lifestyles can enhance the health of communities by encouraging and supporting daily, regular physical activity. A supportive built environment encourages active transportation – the integration of physical activity into daily routines such as walking or biking to destinations such as work, grocery stores, or parks. Several measurement tools and assessment resources are available to help communities measure and improve active living in the built environment, including built environment assessments and environmental audits.[11]

Communities should strive to improve the built environment making physical activity intrinsic to daily living. Walkable communities provide families with the landscape to remain healthy and active, strengthen relationships with neighbors and create easier access to every day services such as schools, parks and stores.[12]

Strategies to Improve Physical Activity through the Built Environment

Formal active living policies and practices can influence physical activity and healthy lifestyle behaviors. Policies that support active transportation and daily opportunities for physical activity can impact the health of communities.

Access to Safe Places for Physical Activity. People may have the necessary knowledge, skills, attitudes, and motivation to be physically active, however if they do not have access to places where they can be active, they may be restricted or prohibited from being physically active.[7] Communities can increase physical activity opportunities by increasing access to park systems, pocket or pop-up parks, green or open spaces, walkable destinations and city centers, recreational facilities, playgrounds, or other gathering places that encourage residents to walk and bike to. Joint-use agreements between schools and community groups to leverage investments and encourage shared spaces, indoors and outdoors, is another evidenced-based strategy to increase physical activity.

Active Transportation Concepts. Approaches such as biking or walking, and use of transit that encourage individuals to actively travel between their destinations throughout the day are referred to as active transportation concepts. Environmental elements that encourage active transportation include sidewalks, pedestrian crosswalks, and walking paths. Advancing active transportation concepts can include implementing Safe Routes to School projects, walking school buses, community-driven walk audits, active living workshops and other opportunities for civic engagement. Providing amenities that support bicycling such as bicycle racks, lockers and bike lanes directly facilitate active transportation and encourage alternative modes of transportation. Supporting mixed-use development where people can live, work, play and meet everyday shopping and lifestyle needs within a single neighborhood encourages physical activity.

Complete Streets Policies and Trail Systems. Communities should incorporate street-scale and community-scale urban design and land use policies and healthy community design principles. This involves planning for street connectivity through trail corridors, multi-use trails and shared-use paths, promoting pedestrian/bicycle/trail master plans, trail construction and development, and incorporating Complete Streets (streets that are safe and accessible for all users) policies and projects. Communities can advocate for repainting or restriping of streets during regular repaving cycles to add bicycle lanes or sidewalk connections. Speed reduction projects or road diets also encourage more foot traffic or pedestrian use in areas where traffic is dense and fast. Open-Streets or Ciclovias (temporarily closing streets to automobile traffic so that people may use them for walking, bicycling, dancing, playing, and socializing) is another approach communities can implement to create advocacy for complete streets.[13]

Multi-Sector Collaboration in the Built Environment

In a healthy community, all sectors – including government, business, education, health and community services – recognize that community health is everyone's business. The sectors work together to support quality of life and well-being by considering the social, economic, environmental, and physical factors that influence the health of individuals and communities.

It is important to identify partners from all sectors including worksites, healthcare, schools, and communities who impact – or may be impacted by – the built environment when building multi-sector partnerships. Not everyone may think of streets and sidewalks as tools to improve health, however, it may be necessary to re-frame health issues to make them relevant to different sectors.

For example, the built environment and transportation systems impact access to healthcare for a community's residents. More than two million health care appointments are missed annually because of transportation issues.[14]

A multi-sector collaboration should consider health impacts when making decisions about development, land use and transportation. It is important to seek individuals who can collaborate to address the development of safe environments with accessible options for all residents, regardless of age, income level or disability status. In considering the built environment, each sector of the community has the opportunity to learn from the others and create a broader view of the factors influencing public health. Community collaboration can influence both public health policy and other public policy on these issues in order for positive changes to take place that will improve the health and quality of life for all residents.

Multi-sector partners may include individuals who represent the following:

- City Planners
- Architects
- Engineers
- Parks & Recreation
- Transportation
- Law Enforcement
- Public Health
- Walking and Bicycling Advocates

- Health Care
- Transit Authority
- Elected Officials
- Social Services
- Community Coalitions
- Planning and Zoning Boards
- School, Business and Community Leaders
- Residents of All Ages and Abilities

The Role of Community Members

Everyone has a role in building a healthy community to support access to physical activity opportunities. Local actions can support quality of life as well as create a long-term, stronger community. Community partners can play various roles in the process, including:

- Elected officials have the ability to provide leadership, make funding decisions and implement policy changes.

- Architects and design professionals play a significant role in shaping projects and policies.

- City planners and engineers can adopt active living principles in community design, such as mixed land use, compact design and promoting active transportation options that accommodate diverse needs.

- Health professionals can work with planners and other land-use professionals to provide strong public health arguments needed to support "smart-growth" designs and initiatives.

- School officials can provide input about site selection for schools and contribute ideas for creating Safe Routes to School programs to ensure children can safely walk and bike to school.

- Coalitions and advisory groups can convene partners to consider health impacts when making decisions related to the built environment.

- Business leaders can adopt policies and programs that promote walking, bicycling and use of public transportation, or sponsor a recreational or maintenance project in their community.

The Built Environment in South Dakota

A number of communities in South Dakota have taken steps to address the built environment and promote active lifestyles. To learn about these initiatives, we encourage you to read the success stories on www.goodandhealthysd.org. You will find the stories under each of the sectors that are listed at the top of the home page.

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