

CHAPTER 12: Healthy Des Moines Element

BACKGROUND AND CONTEXT

In the past ~~decade~~two decades, there has been an overall increase of obesity and chronic diseases in King County. Data show that people living in South King County bear a disproportionate burden of poor health and poverty compared to other parts of the County.¹

These health issues acutely impact youth. Fostering greater physical activity among youth has been the focus of recent efforts by the Washington State Recreation and Conservation Office (RCO). Using funding allocated by the state legislature, the RCO Assembled a physical Activities Task Force composed of representatives from across the state to investigate the inequities in physical activity experienced by youth in Washington, remove systemic barriers to physical activity, and encourage youth to be more physically active.²

Unfortunately, data shows that youth across the state are not getting the recommended 60 minutes of daily physical activity as prescribed by the Centers for Disease Control and Prevention.³ This is chiefly due to a lack of accessible facilities, finances, transportation access, and safety barriers.⁴ Further compounding the issue is that access to recreational facilities and rates of physical activity differ based on income and ethnic background. The report found that low income and communities of color often having the “fewest accessible, safe, and well-maintained recreational facilities.”⁵ As a result, supporting policies, programs, and interventions in the built environment to foster greater rates of physical activity must remain a priority for Des Moines, with a particular focus on measures to improve outcomes for our community’s youth in an equitable manner.

In 2010, the City of Des Moines received an 18-month Communities Putting Prevention to Work (CPPW) grant from the U.S. Centers for Disease Control and Prevention (CDC) and Public Health Seattle King County (PHSKC) to develop a new Healthy Eating and Active Living (HEAL) Initiative. The City partnered with the cities of Burien, SeaTac and Normandy Park, and the Highline School District, to form the Healthy Highline Communities Coalition (now Highline Community Coalition or HCC). The HCC coordinates healthy resources available in our

“Des Moines is making a HUGE difference in helping its youth stay healthy – by making where they live, learn and play places that make the healthy choice the easy choice.”

James Krieger, MD, MPH
Public Health – Seattle & King County

¹Public Health – Seattle & King County website, Burien/Des Moines Health Planning Area data and maps available at: <http://www.kingcounty.gov/healthservices/health/partnerships/cppw/kcprofile.aspx> (last accessed 8/22/11)

² Washington State Recreation and Conservation Office. “Physical Activities Task Force Report.” Washington State Recreation and Conservation Office. 2022. <https://rco.wa.gov/wp-content/uploads/2022/02/PhysicalActivityTaskForceReport.pdf>, pgs. 3-4.

³ Ibid, p. 5.

⁴ Ibid p. 9

⁵ Ibid.

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communities to help our citizens take the necessary steps to become healthier by consuming more nutritious foods and engaging in more physical activity.

In 2013, the City of Des Moines received a follow-on Community Transformation Grant (CTG) from the CDC in partnership with Seattle Children's Hospital and PHSKC to develop and implement standards to improve physical activity in City-run programs. The City collaborated with Highline School District to develop new Physical Activity Standards; a NEW Des Moines K-FIT program for the City's Club KHAOS (Kids Having an Outrageous School Year) and Camp KHAOS (Kids Having an Outrageous Summer) programs. These programs are aligned with Highline School District's Enhanced Physical Education Program and with Washington State health and National fitness standards for physical activity curricula.

There are opportunities for food growing in the community. The Daisy Sonju Community Garden & Orchard is a partnership effort focused on improving the health of the community by reconnecting people to their environment. This includes planting space for community food needs (in addition to offering leased plots for organic gardening). Volunteers are essential to the space, working to maintain paths, harvest fruit in the orchard, and plant and care for food in the designated food bank plots. In addition, the Midway Park has a space identified for a future community garden as the park is remodel. A community garden partner to run start and run the program as needed.

In April 2024, the City of Des Moines proclaimed the week of April 15-19 as Black Wellness Week. The proclamation aimed to foster community empowerment by bringing awareness to health disparities as evidenced during the COVID-19 pandemic and aligning with broader universal health objectives, including highlighting systemic health barriers. This proclamation was the first of its kind in the City of Des Moines, and a step towards continuing to highlight health disparities within underrepresented groups within our community.

Table 1 shows the household income, rates of disability, and mortality rates for census tracts that are partially or entirely within the City of Des Moines.⁶

Table 1: City of Des Moines Median Household Income, Disability Population, and Mortality Rate

<u>Census Tract</u>	<u>Median Household Income (\$)</u>	<u>Disabled Population (%)</u>	<u>Mortality Rate (per 100,000)</u>
<u>287</u>	<u>98,301</u>	<u>8.9</u>	<u>714.19</u>
<u>288.01</u>	<u>66,822</u>	<u>14.8</u>	<u>1196.61</u>
<u>289.01</u>	<u>73,551</u>	<u>10.2</u>	<u>687.46</u>
<u>289.02</u>	<u>54,401</u>	<u>6.8</u>	<u>909.22</u>
<u>290.01</u>	<u>76,930</u>	<u>18.5</u>	<u>679.68</u>
<u>290.03</u>	<u>50,942</u>	<u>15.2</u>	<u>1031.18</u>
<u>300.03</u>	<u>71,973</u>	<u>10.3</u>	<u>850.29</u>
<u>301</u>	<u>88,576</u>	<u>12.9</u>	<u>756.82</u>

⁶ Washington Recreation and Conservation Office. "Statewide Comprehensive Outdoor Recreation Plan (SCORP) Grant Application Tool." *Washington RCO*. 2022. <https://wa-rco.maps.arcgis.com/apps/instant/minimalist/index.html?appid=bce5b3d8c691477a94801c271b97a6fa>

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Projects within two census tracts in the City of Des Moines (Tracts 288.01 and 290.03) may be eligible for additional grant funding options because their median household incomes are below the state average of \$73,775, their disabled population percentage is above the state average of 12.7%, and their mortality rate is above the state average of 675.48 per 100,000 persons.

The City of Des Moines may be eligible to apply for Community Development Block Grants (CDBG) through its participation in the King County Consortium. Administered by the U.S. Department of Housing and Urban Development (HUD), CDBGs programs allocate funding to states, cities, and counties so that these entities can invest in urban community development and foster economic opportunity for low- and moderate-income persons in local communities.⁷ Funds are administered “based on the percentage of low-and-moderate-income populations” within two sub-regions of King County and whether they further the goals envisioned by both the federal government and Consortium.”⁸ Thus, because of its membership within the King County Consortium, Des Moines could apply for a few CDBG opportunities in the near and long term.

Another funding opportunity available to the City of Des Moines is the Community Forestry Assistance Grant, Overseen by the Washington State Department of Natural Resources (DNR), the Community Forestry Assistance Grant makes \$7 million in funding available to address adverse environmental conditions impacting Washington on a local and regional level.⁹ To qualify for this grant, communities identified in the application must be within the geographic boundary of areas graded ‘disadvantaged’ by the Climate and Environmental Justice Screening Tool.¹⁰ Within the city of Des Moines, Census Tracts 289.02 and 290.03 are listed as disadvantaged; and so projects within these census tracts would be eligible for the grant opportunity.



Image Generated by: Microsoft, August 27, 2024. <https://copilot.microsoft.com/>.

The DNR also created a UCF Project Prioritization Tool to assist applicants with locating projects for this grant opportunity.¹¹ The tool shows eligibility for state funding if a community census tract is designated as a highly impacted community. Highly impacted communities are those census tracts that receive an environmental health disparity score of 8 or higher.¹² This project prioritization tool also shows status for federal funding based on whether a community census tract is designated a disadvantaged

⁷ U.S. Department of Housing and Urban Development. “Community Development Block Grant Program.” *hud.gov*. US Dept of Housing and Urban Development. 22 December 2022. https://www.hud.gov/program_offices/comm_planning/cdbg

⁸ King County. “Consolidated Housing and Community Development Plan 2020-2024.” *kingcounty.gov*. King County Consortium. <https://kingcounty.gov/~media/depts/community-human-services/housing-homelessness-community-development/2020-24-conplan/kc-consort-consolidatedplan2020-2024-final.ashx?la=en>. Pgs. 2-3;104.

⁹ Washington State Department of Natural Resources. “2024 Community Forestry Assistance Grant: Request for Application.” *Dnr.wa.gov*. 2023. <https://www.dnr.wa.gov/urbanforestry> & https://www.dnr.wa.gov/publications/rp_urban_rfa_community_forestry_assistant_grant.pdf

¹⁰ Council on Environmental Quality. “Climate and Economic Justice Screening Tool.” *Screeningtool.geoplatform.gov*. U.S. White House. 22 November 2022. <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>

¹¹ Washington State Department of Natural Resources. “UCF Prioritization Tool.” WA DNR. N.d. https://wa-dnr-fr-data-team.shinyapps.io/DNR_UCF_Prioritization_Tool/ and https://www.dnr.wa.gov/sites/default/files/publications/rp_ucf_prioritization_slides_0923.pdf.

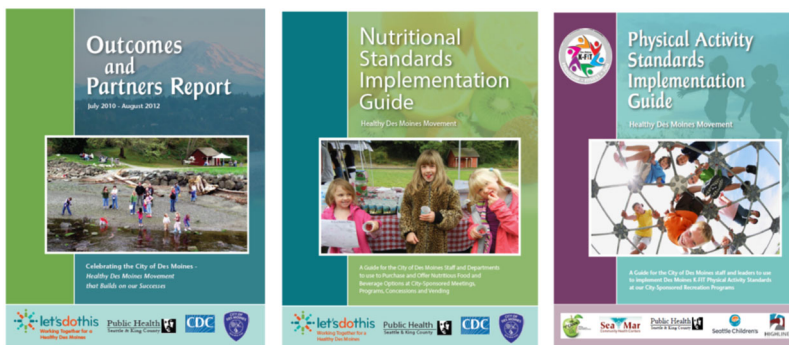
¹² It is mandated by state law that 50% of grant money and services must be given to highly impacted communities; RCW 76.15.100 (6).

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community census tract. Census tracts 289.92 and 290.03 are identified as highly impacted communities with environmental health disparity scores of 10 and 9, respectively. There are two parks located within census tract 289.02 – Midway Park and Kiddie/City Park where projects could be eligible for this funding opportunity and in census tract 290.03, Parkside Park could be eligible for grant funding, too.

BRIDGING THE GAPS THROUGH POLICY, SYSTEMS, AND ENVIRONMENT CHANGES

The City of Des Moines' policies relating to land use, food access, and the transportation system have a strong influence on people's lifestyles and in promoting a healthy community. Goals, policies, and strategies within the Healthy Des Moines Element as well as those within Chapter 2 – Land Use Element, Chapter 3 – Transportation Element, and Chapter 6: Parks, Recreation, and Open Space Element provide a framework and identify the actions for making the necessary changes needed to build a healthy, vibrant Des Moines that fosters an environment for healthy eating and active living within our community. Through the Healthy Des Moines Initiative, the City of Des Moines created the *Outcomes and Partners Report*, *Nutritional Standards Implementation Guide*, and *Physical Activity Standards Implementation Guide* as, and the K-FIT Program as tools to ensure success and sustainability for healthy living in our community.



GOALS

- Goal HD 1** Participate in the Healthy Highline Communities Coalition to ~~c~~Coordinate with surrounding communities to support improved access to physical activity and healthy foods, and ~~F~~facilitate the long-term implementation of the Healthy Des Moines Initiative.
- Goal HD 2** Develop public, private, and non-profit partnerships to support the goals of and sustain the Healthy Des Moines Initiative and the Healthy Des Moines Element.
- Goal HD 3** Support the efforts of the Port of Seattle to study the impacts of noise and air pollution from SeaTac Airport on surrounding communities and ~~also~~ be supportive of independent studies into noise and air pollution impacts.
- Goal HD 4** Support implementation of the recommendations from the State RCO Physical Activity Task Force Report.
- Goal HD 5** Continue the city's commitment to address and alleviate health disparities for underrepresented groups.

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POLICIES AND IMPLEMENTATION STRATEGIES

- HD 1.1 Support policy, systems, and environmental changes that result in increased access to healthy foods and beverages and opportunities for physical activity, with an emphasis on school-age children.**
- HD 1.1.1 ~~Adopt~~Propose a Healthy Food Resolution and ~~create~~support a long-term action plan.
- HD 1.1.2 Continue to support the Des Moines Food Bank, Farmers Market and other organizations that help provide food assistance to low-income residents so that all families, seniors, schools, and community-based organizations are able to access, purchase, and increase intake of fresh fruits, vegetables, and other non-processed food.
- HD 1.2 When feasible, Provide healthy food and beverages in City-sponsored meetings and programs and at City facilities to promote balanced food choices.**
- HD 1.2.1 Continue to support implementation of nutritional standards and healthy food procurement policies in City owned and operated facilities and across departments.
- HD 1.3 Sustain the Des Moines K-FITyouth programs that teaches fitness, nutrition, and health to youth in City-sponsored early childhood and school-age clubs and camps.**
- HD 1.3.1 ~~Continue to Support~~ implementation of Youth Des Moines K-FIT Physical Activity ~~Standards~~ at City-sponsored recreation programs.
- HD 1.3.2 Provide ongoing training, support, and resources for K-FITYouth ~~-Physical~~ Activity Leaders so they can competently facilitate youth health and fitness education and activities.
- HD 2.1 Work with public, private and non-profit partnerships such as the Public Health Seattle & King County, School Districts, Seattle Children’s Hospital, HealthPoint, and Sea Mar Community Health Center to advocate the goals and outcomes Healthy Des Moines Initiative.**
- HD 2.1.1 Collaborate with schools and community partners to identify and support implementation of best practices to achieve a reduction in childhood obesity.
- HD 2.1.2 Continue to work with the Federal Way and Highline School Districts to align programs and share spaces and resources to support youth health and learning.
- HD 3.1 Build upon the “Clearing the Air” study conducted by the University of Washington and continue to collaborate with educational institutions to investigate and ways to mitigate the impacts of noise and ultrafine air pollution on the health of City of Des Moines residents.**

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HD 3.1.1 Advocate on behalf of the community to require SeaTac Airport to implement stricter noise reduction policies on aircraft flying through the airport.

HD 3.1.2 Support the efforts of the Port of Seattle to find cleaner alternatives to traditional fuels.

HD 4.1 Advocate for a statewide study to investigate the decline and existing gaps of youth physical activity (Recommendation 6 from the Physical Activity Task Force Report).

HD 4.1.1 -Utilize the Athletic Fields and Facilities Inventory tool to inform how park facilities and recreation programming can better meet the needs of people within the City of Des Moines.

HD 5.1 Identify and facilitate opportunities to support wellness initiatives for the diverse Des Moines community and directly to address and alleviate health disparities for underrepresented groups.

HD 5.1.1 Pursue RCO grant funding opportunities to invest in health and wellness initiatives that directly to address health disparities in underrepresented groups.

HD 5.1.2 Research and monitor grant funding opportunities from DNR for disadvantaged and/or highly impacted communities.

TECHNICAL APPENDIX: Healthy Des Moines

HEALTH IMPACTS OF SEATAC INTERNATIONAL AIRPORT

Seattle-Tacoma International Airport is the major aviation hub connecting the Puget Sound region to cities across the globe. Fueled largely by rapid population growth in the Puget Sound region, passenger traffic at SeaTac has been increasing in recent decades. This has strained the airport's ability to handle its current capacity of flights and passengers and rate of growth.¹³ To ensure that the airport has capacity to meet the region's transportation and economic needs into the future, the Puget Sound Regional Council (PSRC) has published multiple long-range planning documents to forecast how growth at the airport is expected to impact the region and guide that growth through policy. According to Regional Transportation Plan, VISION 2050, and a Regional Aviation Baseline study conducted by the PSRC in 2018, it is imperative for the Port of Seattle to find ways to address capacity needs and accommodate growing demand for air travel at SeaTac in the future.¹⁴

A major consequence of the growth at SeaTac airport are the negative health impacts on Des Moines' residents. Residents in Des Moines and surrounding communities face disproportionate impacts from operations at the airport, including air and noise pollution.¹⁵ Like cars, trucks, and boats, airplanes also contribute to air pollution and can worsen air quality. What is unique is that the pollution emitted from aircraft is often even smaller than pollutants emitted from roadways. Researchers at the University of Washington found a "distinct type of ultrafine particle pollution" often between "0.01 and 0.02 microns in diameter," at higher levels immediately surrounding SeaTac Airport.¹⁶ As seen in the diagram below, the City of Des Moines is located underneath the flight path of SeaTac airport when planes take off or land from the south.

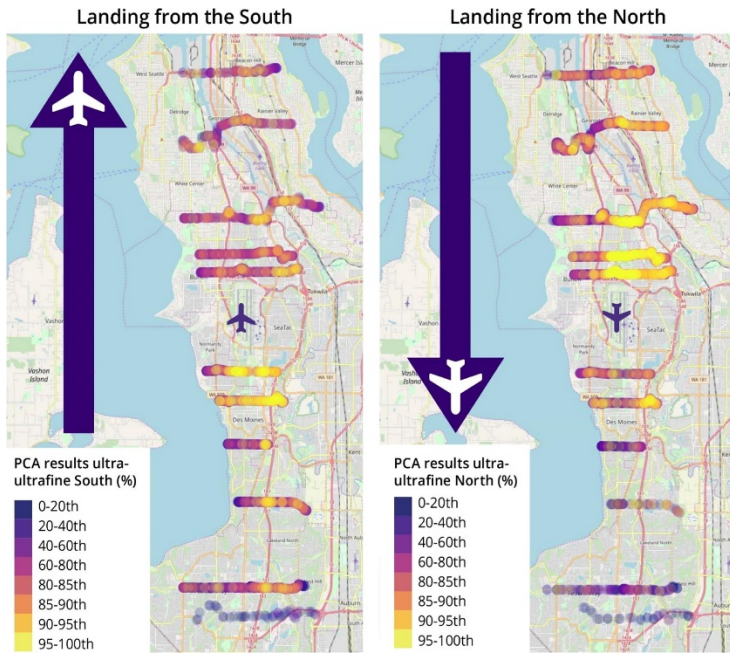
¹³ Pina, Matt and Matthias, Michael. "Vision 2050 Scoping" Memo. *City of Des Moines, WA*. 19 March 2018.

¹⁴ Pina, Matt "Regional Transportation Plan Comments on the Regional Transportation Plan" Memo. *City of Des Moines, WA*. 30 January 2018.

¹⁵ Pina, Matt and Matthias, Michael. "Regional Aviation Baseline Study" Memo. *City of Des Moines, WA*. 7 October 2020.

¹⁶ Fisher, Brooke. "Clearing the Air." *Ce.washington.edu*. UW Civil and Environmental Engineering. 15 June 2021.
<https://www.ce.washington.edu/news/article/2021-06-15/clearing-air>.

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The health impacts of pollutants from various transportation sources have been well documented in¹⁷ academic literature. Whereas the body has a greater ability to filter out larger particles, smaller pollution particles can filter into the body with greater ease, and cause health issues for vulnerable populations include pregnant women and youth.¹⁸ Also concerning is that ultrafine particles, such as those emitted by aircraft, are not monitored or regulated by the EPA.¹⁹ Thus, the impacts of air pollution as outlined in the study will likely worsen as passenger traffic increases at the airport.

Another impact stemming from Des Moines' proximity to SeaTac is noise pollution. As SeaTac's capacity has increased so have the frequency of flights departing and landing from the airport. According to the U.S. Department of Transportation's Noise Mapping Tool, much of the city of Des Moines experiences noise pollution in excess of 55 to 65 decibels as a result of its proximity to SeaTac airport. Because Des Moines is located underneath the flight path leading to and from SeaTac airport, planes are usually flying relatively lower over the community, amplifying the impacts of noise. Excessive noise can have physical and mental health effects, impact sleep, contribute to stress and even lead to cognitive impairment in children.²⁰

DES MOINES HEALTHY COMMUNITY GAPS

Poor nutrition and lack of physical activity are primary risk factors for obesity and chronic diseases like diabetes, heart disease, and certain cancers. While people's health is influenced by personal decisions, it is also

¹⁷ U.S. Department of Transportation. "Transportation Noise Map." [Maps.dot.gov](https://maps.dot.gov/BTS/NationalTransportationNoiseMap/). US DOT. 2020.

¹⁸ Fisher, Brooke. "Clearing the Air." *Ce.washington.edu*. UW Civil and Environmental Engineering. 15 June 2021. <https://www.ce.washington.edu/news/article/2021-06-15/clearing-air>.

¹⁹ Fisher, Brooke. "Clearing the Air." *Ce.washington.edu*. UW Civil and Environmental Engineering. 15 June 2021. <https://www.ce.washington.edu/news/article/2021-06-15/clearing-air>.

²⁰ European Environment Agency. "Health impacts of exposure to noise from transport." *Eea.europa.eu*. EEA. N.d. <https://www.eea.europa.eu/en/analysis/indicators/health-impacts-of-exposure>

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shaped by how our community is designed and built, such as land use, the transportation systems, and the location of parks, recreation facilities, public buildings, and other services.

In 2022, the Washington State Department of Health published the Environmental Health Disparities Map to enable communities to map the various environmental and health burdens impacting census tracts across the state.²¹ It provides an overall environmental health disparity score by census tract, along with individual metrics that serve as indicators of overall environmental health. Based on the data collected for each indicator, census tracts are sorted and then ranked into ten percentile groups. This enables a census tract to view how it compares for a certain environmental health indicator and for environmental health overall against census tracts from across the state.²²

There are a total of eight census tracts that are entirely or partially within the City of Des Moines' municipal boundaries. All eight census tracts in Des Moines are within the top third of census tracts statewide concerning overall environmental healthy disparity, three tracts are within the top fifth of tracts statewide for overall environmental health disparity, and two tracts within Des Moines fall within the highest overall environmental health disparity in Washington. This has severe implications for the quality of life and overall well-being of residents within Des Moines.

National research has shown that in communities where healthy-nutrient-dense food options like fresh fruits and vegetables are easily accessible~~available~~, residents have better diets and lower rates of obesity and diet-related chronic disease. Similarly, people tend to be more active when they can easily access walking and biking.

Assessment data show that Des Moines has an "unbalanced food environment" – that is, there are far more opportunities to buy processed or unhealthy junk~~foods~~ and fast food than "healthy food." - From a public health perspective, this means that Des Moines residents have a higher exposure to unhealthy foods than to nutritious foods.²³ In addition, there are low income areas that are not within reasonable walking distance (i.e., > one-half mile) of a grocery store or market that provides fresh food.- This is supported by data from the Washington State Department of Health (DOH) Environmental Health Disparities Map concerning access to healthy food in Des Moines. Six census tracts are ranked within the top half of tracts statewide that have limited access to healthy food; five tracts are within the top third, according to data drawn from the CDC's Modified Retail Environmental Index. This illustrates two key points. Firstly, that residents within the same city can have vastly different levels of access to healthy foods. This can exacerbate existing health disparities within Des Moines. This also demonstrates that most of Des Moines' residents have limited access to healthy food. This can also create difficulties for planners and city officials in implementing a citywide strategy to address the issue; not all areas are created equal, and some areas may need a larger scale intervention than others.

²¹ Washington State Department of Health. "Washington Environmental Health Disparities Map." *WA St. Department. of Health*. 2019. <https://doh.wa.gov/data-and-statistical-reports/washington-tracking-network-wtn/washington-environmental-health-disparities-map>

²² Washington State Department of Health. "Washington Environmental Health Disparities Map One Pager." *WA St. Department of Health*. 2022. https://doh.wa.gov/sites/default/files/2022-09/334-426%20EHD%20Map%20one-pager_2022-v2.pdf.

²³ Martin, Kara E., et al., *The Food Landscape in Des Moines, Washington*. September 2011.

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Poor access to nutritious foods can have detrimental effects on overall weight gain and the overall mortality rate in an area. The Washington Recreation and Conservation Office (RCO)²⁴ maintains a data tool on population demographics and health indicators to help cities and communities prepare grant applications to the agency. Two important metrics shown on this tool are the Body Mass Index (BMI) of youth ages 16-19 and mortality rate by census tract. These health indicators can capture a snapshot of overall community health. It is also useful to compare these metrics against the statewide averages to investigate whether a community's health is better or worse off than others in Washington. The average BMI for people ages 16-19 is 22.94 and the average statewide mortality rate is 675.48 per 100,000 people.

Five out of the eight census tracts in Des Moines WA have a BMI for ages 16-19 above the statewide average of 22.94, while three census tracts are below the statewide average for BMI of residents ages 16-19. All eight census tracts in Des Moines also have a mortality rate above the statewide average, which is 675.48 people per 100,000 people.

Table 2: City of Des Moines Census Tract BMI and Mortality Rate

Census Tract	BMI Ages 16-19	Mortality Rate (per 100,000)
<u>287</u>	<u>23.02</u>	<u>714.19</u>
<u>288.01</u>	<u>23.00</u>	<u>1196.61</u>
<u>289.01</u>	<u>23.00</u>	<u>687.46</u>
<u>289.02</u>	<u>24.23</u>	<u>909.22</u>
<u>290.01</u>	<u>22.84</u>	<u>679.68</u>
<u>290.03</u>	<u>23.69</u>	<u>1031.18</u>
<u>300.03</u>	<u>22.76</u>	<u>850.29</u>
<u>301</u>	<u>22.58</u>	<u>756.82</u>

Source: Washington Recreation and Conservation Office. "Statewide Comprehensive Outdoor Recreation Plan (SCORP) Grant Application Tool."

Washington RCO. 2022. <https://wa-rco.maps.arcgis.com/apps/instant/minimalist/index.html?appid=bce5b3d8c691477a94801c271b97a6fa>

According to the CDC, the leading cause of death and disability for Americans in 2022 were heart disease and cancer.²⁵ Many cancers and cardiovascular diseases can stem from lifestyle choices, such as poor nutrition and lack of physical activity. The DOH's Environmental Health Disparities Map shows that the City of Des Moines fares poorly regarding these health outcomes in comparison to Washington State. Seven out of eight census tracts in Des Moines are within the top third of all tracts regarding total cancer deaths; two tracts are within the group of communities with the highest total cancer death toll statewide. Similarly, all eight census tracts in Des Moines are within the top half of all tracts within the state for deaths from cardiovascular disease per 100,000. Relatedly, environmental risk factors can lead to premature death. Premature mortality is measured as the "number of years of potential life lost relative to age 65 and calculates a rate per 100,000" (EHD Map). Only two census tracts did not rank in the top half of the state for premature deaths. In addition, census tracts 289.01,

²⁴ Washington Recreation and Conservation Office. "Statewide Comprehensive Outdoor Recreation Plan (SCORP) Grant Application Tool." *Washington RCO*. 2022. <https://wa-rco.maps.arcgis.com/apps/instant/minimalist/index.html?appid=bce5b3d8c691477a94801c271b97a6fa>

²⁵ Centers for Disease Control and Prevention. "Chronic Diseases in America." *Centers for Disease Control and Prevention*. US Dept of Health and Human Services. 13 December 2022. <https://www.cdc.gov/chronicdisease/resources/infographic/chronic-diseases.htm>

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288.01, and 289.02 ranked 8th, 9th, and 10th respectively, indicating that some areas are experiencing drastically higher rates of premature death than other areas within the city.

This data show how health related outcomes are not just the result of personal choice but can also be impacted by how cities are built, what industries are located within cities, and what modes of transportation are readily available. In many cities, the quickest way to get to one's destination is by driving. However, driving cars can have a host of negative health effects. In a study published by the National Library of Medicine, authors found that longer drive times are associated with higher odds for "insufficient physical activity, short sleep, obesity, and worse physical and mental health."²⁶ Compared to the entire state, the rates of driving alone for census tracts within the City of Des Moines rank in the middle. However, in the lowest ranked census tract, over half of commuters drive alone to work; in most census tracts in Des Moines, between two thirds and three quarters of commuters drive alone. This highlights the importance of supporting investment in active modes of transportation. Active transportation, which can include cycling and walking, can have several key health benefits. By building in exercise to one's daily commute, active transportation can reduce obesity and lower risks for chronic diseases such as cardiovascular disease and diabetes.²⁷

(<https://www.transportation.gov/mission/health/active-transportation>). Safe Routes to School (SRTS) is an example of a nationwide effort to encourage students to use active mode of transportation to get to school through education, incentives, and improvements to the built environment²⁸.

A current conditions assessment for Safe Routes to School near Des Moines' elementary schools (Midway, Des Moines, North Hill, Woodmont, and Parkside) was performed in 2011 showing ~~shows~~ that some improvements along the roadside, such as sidewalks or even widened shoulders are needed to make it easier and more comfortable for children and their families to safely walk and bike to school.²⁹

²⁶ Ding et. al. *Driving: A Road to Unhealthy Lifestyles and Poor Health Outcomes*. National Library of Medicine, 9 June 2014.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4049576/>

²⁷ US Department of Transportation. "Active Transportation/" *transportation.gov*. 24 August 2015. <https://www.transportation.gov/mission/health/active-transportation>.

²⁸ US Department of Transportation. "Safe Routes to School Programs/" *transportation.gov*. 24 August 2015.

<https://www.transportation.gov/mission/health/Safe-Routes-to-School-Programs>

²⁹ SvR Design Company and Alta Planning and Design, *Safe Routes to School Project Lists/Communities Putting Prevention to Work* August 2011.