

Sault Tribe Health Needs

Obesity, Physical Activity & Nutrition

In 2012-2013, the Sault Tribe and the Michigan Public Health Institute conducted a mail survey to gather health data on adults and children living in households with enrolled Sault Tribe members within the Tribe's 7-county service area.

<i>Selection</i>	<i>Data Collection</i>	<i>Data Analysis</i>
<ul style="list-style-type: none"> 4,510 households were randomly selected from a list of 6,800 unique addresses of enrolled tribal members Households were grouped into two categories based on proximity to community health project activities and expected exposure to these projects 	<ul style="list-style-type: none"> One survey packet was mailed to each selected household The survey questionnaire was completed for one adult (age 18 or older) and one child (ages 3-11) living in each household The adult section had 106 items that covered topics such as demographics, nutrition, physical activity, tobacco use, health status, health care, and life satisfaction and stress 	<ul style="list-style-type: none"> 1,611 surveys were returned (36%) Statistical adjustments were made to the data so it would reflect the demographics of the tribal member adult population For maps, households were grouped into "urban clusters" (>2,500 and <50,000 people) or "rural area" (all other areas) for analysis

Table 1. Health risks and behaviors among Sault Tribe Anishinaabe adults, by select demographics

Demographics	Participates in physical activity and meets recommendations¹		Eats at least one serving of fruit and one serving of vegetable per day		Obese (BMI_≥30)	
	(n=442)		(n=792)		(n=517)	
	%	95% C.I.	%	95% C.I.	%	95% C.I.
Overall	33.4	(29.3-37.5)	52.2	(48.0-56.5)	36.8	(32.6-41.0)
Geography²						
Urban clusters	35.5	(29.9-41.1)	53.9	(48.2-59.6)	33.0	(27.8-38.3)
Rural areas	29.9	(24.3-35.5)	49.6	(43.3-55.9)	42.9	(36.2-49.6)
Household Income						
< \$20,000	34.3	(25.7-42.9)	46.2	(37.5-54.8)	34.3	(25.5-43.0)
\$20,000 - \$34,999	26.9	(19.3-34.6)	55.2	(46.5-63.8)	35.0	(26.6-43.3)
\$35,000 - \$49,999	32.1	(21.8-42.4)	51.0	(41.1-61.0)	40.4	(30.3-50.6)
\$50,000 - \$74,999	34.8	(25.2-44.3)	53.8	(43.9-63.7)	41.1	(31.3-50.9)
≥ \$75,000	46.5	(34.2-58.9)	62.8	(52.0-73.6)	32.6	(21.0-44.3)
Education						
Less than high school diploma	18.7	(7.5-29.9)	54.8	(38.0-71.6)	33.7	(15.5-51.8)
High school graduate	31.8	(24.5-39.0)	44.8	(37.8-51.7)	40.9	(34.2-47.6)
Some college	35.0	(27.4-42.5)	53.5	(45.4-61.6)	38.3	(31.0-45.6)
College graduate	40.5	(30.7-50.3)	66.3	(56.2-76.4)	27.1	(19.0-35.1)

Key Findings



Anishinaabe adults living in rural areas were **less likely** to meet physical activity recommendations than those living in urban clusters.



1 in 3

Anishinaabe adults meet physical activity recommendations.



Generally, as household income increased, the percent of Anishinaabe adults who met physical activity recommendations increased.



As education level increased, the percent of Anishinaabe adults who met physical activity recommendations increased.



Anishinaabe adults living in rural areas were **less likely** to eat at least 1 serving of fruit and 1 serving of vegetables daily than those in urban clusters.



Obesity rates differed by place; obesity rates were **almost 10% higher** in rural areas than in urban clusters.

Differences in Physical Activity

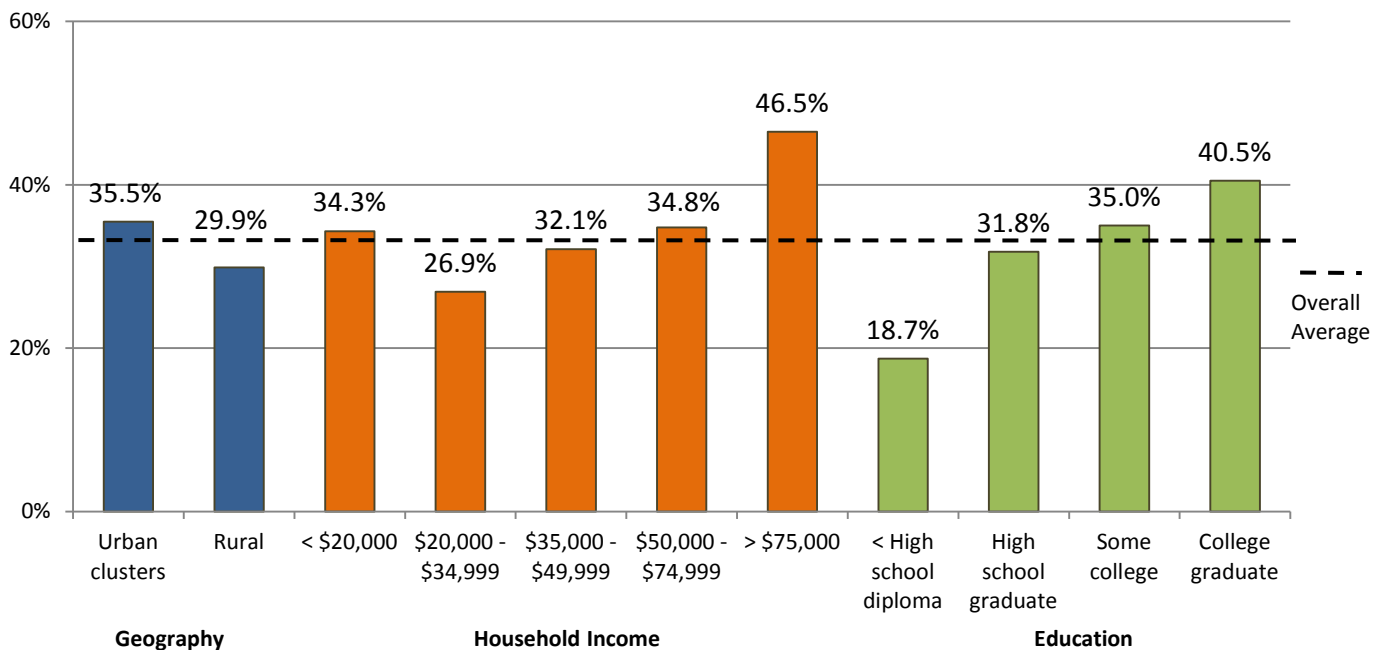


Figure 1. Met daily physical activity recommendations among Anishinaabe adults, by select demographics

Targeting Community Strategies for Health Improvement

The Sault Tribe Health Survey (2013) data highlight how there are differences in Anishinaabe adults' physical activity, nutrition behaviors, and obesity rates based on several social factors, including place, income, and education. Anishinaabe adults living in urban clusters reported daily physical activity that met recommendations at a slightly higher rate overall (35.5%) than Anishinaabe adults in rural areas (29.9%). See Table 1 on page 1 and Figure 2 below.

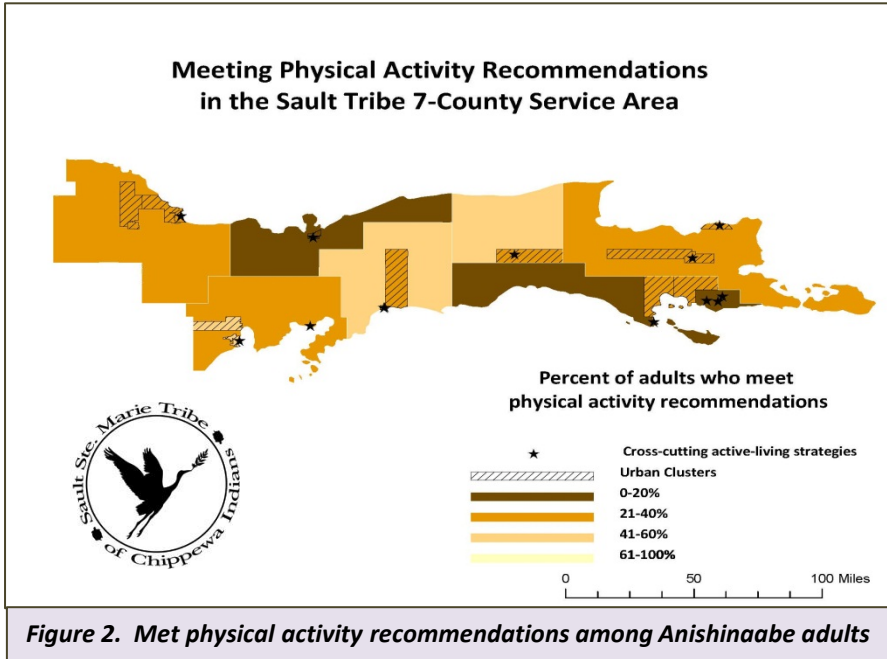


Figure 2. Met physical activity recommendations among Anishinaabe adults

Places with cross-cutting active living strategies

Complete Streets Resolutions
Clark Township, Escanaba, Kinross, Marquette, Manistique, Munising, Newberry, Sault Ste. Marie, St. Ignace

Non-Motorized Transportation Plans
Clark Township, Hessel, Kinross, Manistique, Munising, Newberry, Sault Ste. Marie, St. Ignace

Safe Routes to School
Cedarville, Escanaba, Marquette, Munising, Newberry, Sault Ste. Marie, St. Ignace

Let's Get Moving Challenge
Clark Township, Kinross, Nahma, Newberry, Manistique, Marquette, Munising, Sault Ste. Marie, St. Ignace

Overall, 53.9% Anishinaabe adults living in urban clusters ate at least one serving of fruit and one serving of vegetables daily compared to 49.6% of those in rural areas. Generally, as education and income levels increased, the percent of adults who ate daily servings of fruits and vegetables also went up. See Table 1 on page 1. Rates of fruit and vegetable consumption among Sault Tribe Anishinaabe adults also differed according to where people live. See Figure 3.

Places with farmers markets

- Big Bay
- Curtis
- DeTour Village
- Engadine
- Escanaba
- Garden
- Gladstone
- Gwinn
- Hessel
- Manistique
- Marquette
- Munising
- Nahma
- Negaunee
- Newberry
- Pickford
- Republic
- Sault Ste. Marie
- St. Ignace
- Skandia

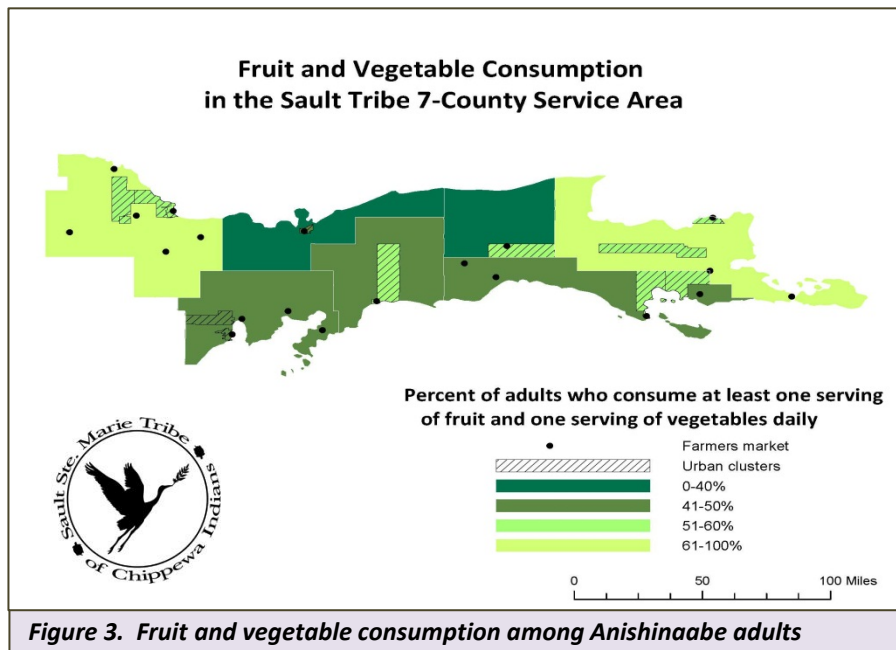


Figure 3. Fruit and vegetable consumption among Anishinaabe adults

Targeting Community Strategies to Improve Health

Turning Data into Action

Research shows where people live and how they live is strongly linked to their health. Features of the physical and social environment are linked to how much physical activity people get daily. Availability of and access to affordable fruits and vegetables in the local community influence what food people eat.

Since 2008, with support from CDC grants like Strategic Alliance for Health, Community Transformation, and Traditional Foods, Sault Tribe Community Health has been working on community-wide prevention strategies to encourage more healthy behaviors that will reduce onset of diseases like diabetes, heart disease and stroke. For several years, Community Health has led cross-sector coalitions to change policies, systems, and environments to support healthy living in the areas surrounding larger cities in the service area. More recently, Sault Tribe has been working to use this coalition approach in more outlying rural communities across the service area. These coalitions work on “cross-cutting active living strategies,” which includes non-motorized transportation plans, Complete Streets policies, Safe Routes to School initiatives, Coordinated School Health Teams, and media campaigns. See Figure 2 on page 3 for locations of these strategies.

Through these community health projects, Sault Tribe staff has been collaborating with local coalitions to expand access to healthy foods by creating or promoting farmers markets. As shown in Figure 3 on page 3, farmers markets are now spread across the service area. Until recently, most existed near or within more urban areas. These survey data will help guide Sault Tribe Community Health in expanding upon their efforts to reach more rural areas with farm-to-school programs, community gardens, teaching of traditional food practices, and tribal food sovereignty plans with new grant projects.

Future Directions

The Sault Tribe Health Survey creates the ability to identify and understand explore differences in health that exist within the tribal population in relationship to where people live and other social factors. This information will help the Tribe better target their efforts, prioritize strategies and distribute limited resources to areas with greater needs. By understanding the landscape of obesity, physical activity and nutrition behaviors, Sault Tribe can strategically plan programs and policies to improve access to care, the environment, access to healthy food, and preventive health services in order to maximize positive impacts on Sault Tribe members and their families.

For more information:



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References

- ¹Meeting recommendations is defined as participating in at least 150 minutes of moderate or 75 minutes of vigorous activity per week. Centers for Disease Control and Prevention. (2008). *Physical Activity Recommendations for Adults*. <http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html>
- ² United States Census Bureau. (2010). *Urban and Rural Classification*. <https://www.census.gov/geo/reference/urban-rural.html>
- ³Shapefiles from: TIGER/Line® . 2010 Census. Census subdivisions (cartographic boundary file tl_2010_60_uac10). Urban clusters and rural cities. Created by Geography Division, U.S. Census Bureau, (September 22, 2014).
- ⁴Coordinates of farmers markets and cities converted using: <http://www.gps-coordinates.net/>