



Diabetes State Plan Data Updates

COORDINATED BY THE SOUTH DAKOTA DIABETES COALITION



Review of Public Health Data and Other Data Sources Related to Diabetes care and Management in South Dakota

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Disclaimers

All data within this presentation has been copied from the document “Review of Public Health Data and Other Data Sources Related to Diabetes Care and Management in South Dakota”. All data has been sourced appropriately in the aforementioned document.

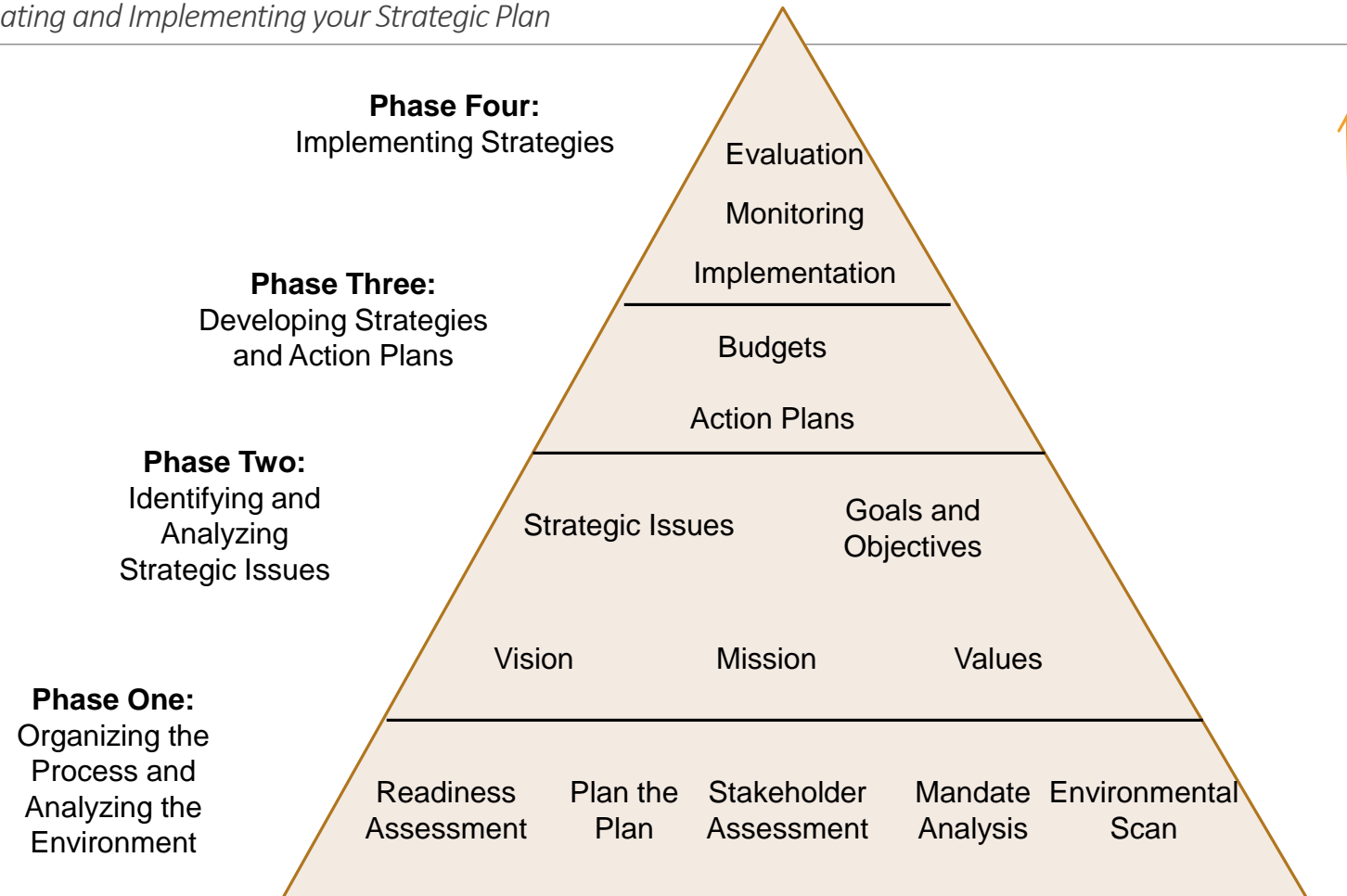
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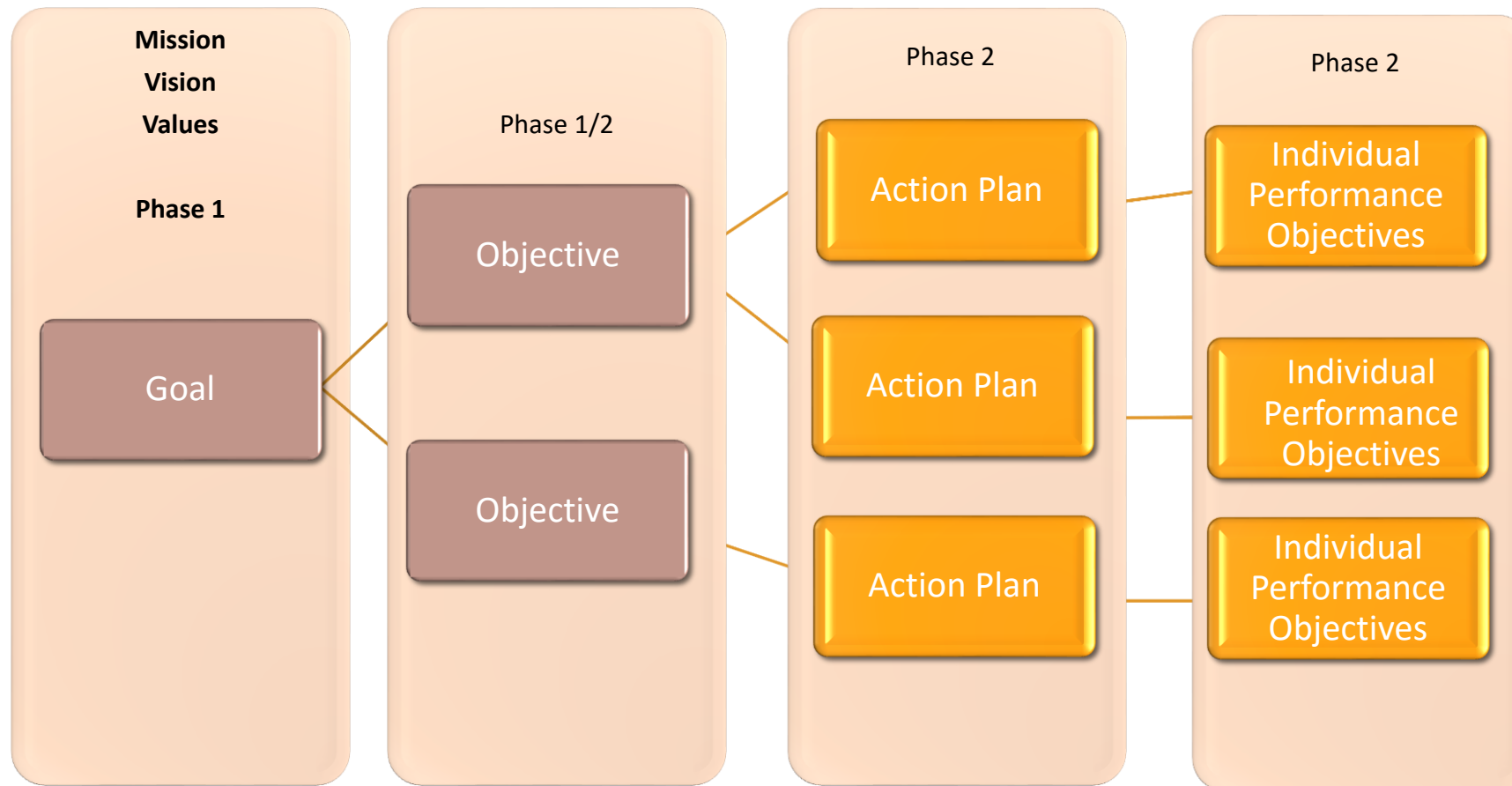
Introduction to Strategic Planning

Strategic Planning: Process

Source: Bryson, J.M., 2005, *Creating and Implementing your Strategic Plan*



Overall Process



Example: Planning Process

- Define Advisory or Planning Committee
- Conduct Needs Assessment and Report
- Face-to-Face Meeting One
 - Introductions
 - Process outcomes and expectations
 - Needs assessment findings
 - Define strategic priorities that will become goals.
 - Begin defining objectives.

Example: Planning Process (Cont.)

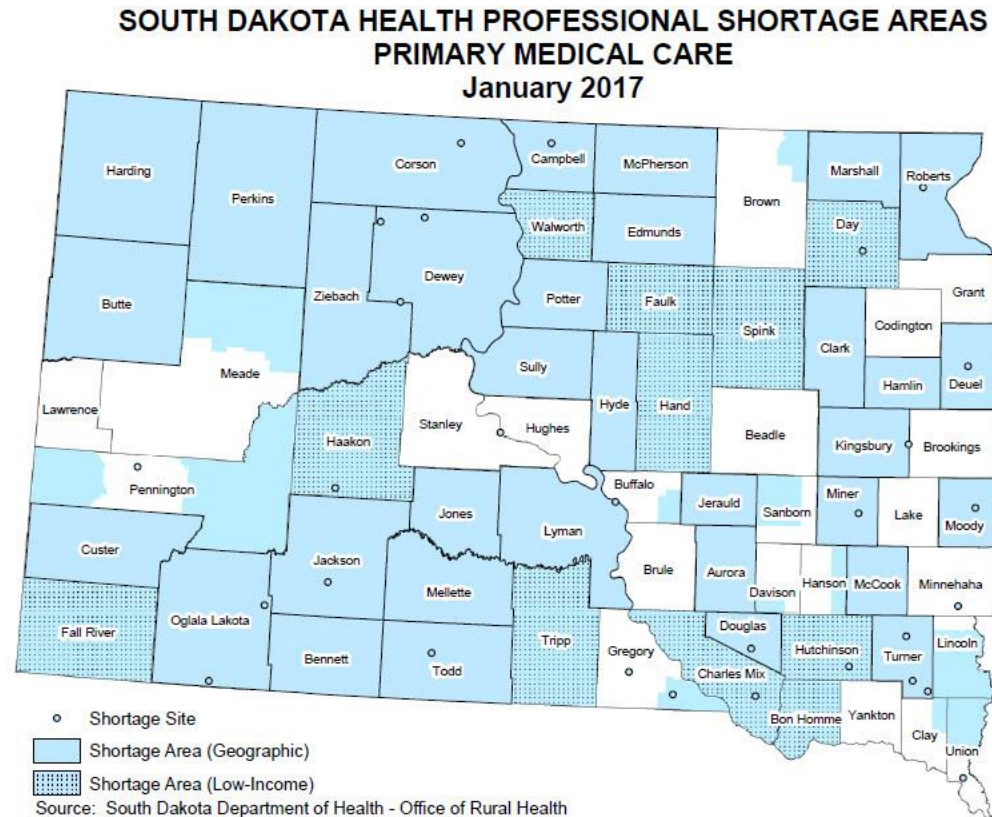
- Sub-committees via teleconference
 - Further define objectives, action plans
 - Determine commitment of human and financial resources
 - Define timeline
- Send draft plan to committee prior to next meeting
- Face-to-Face Meeting Two
 - Review draft goals, objectives, action plans. Gain feedback. Determine if further work is warranted prior to finalizing.
 - Map timeline.
 - Determine budget considerations and sources
 - Secure commitment.
- Finalize plan



Health Resources and Services Administration (HRSA)

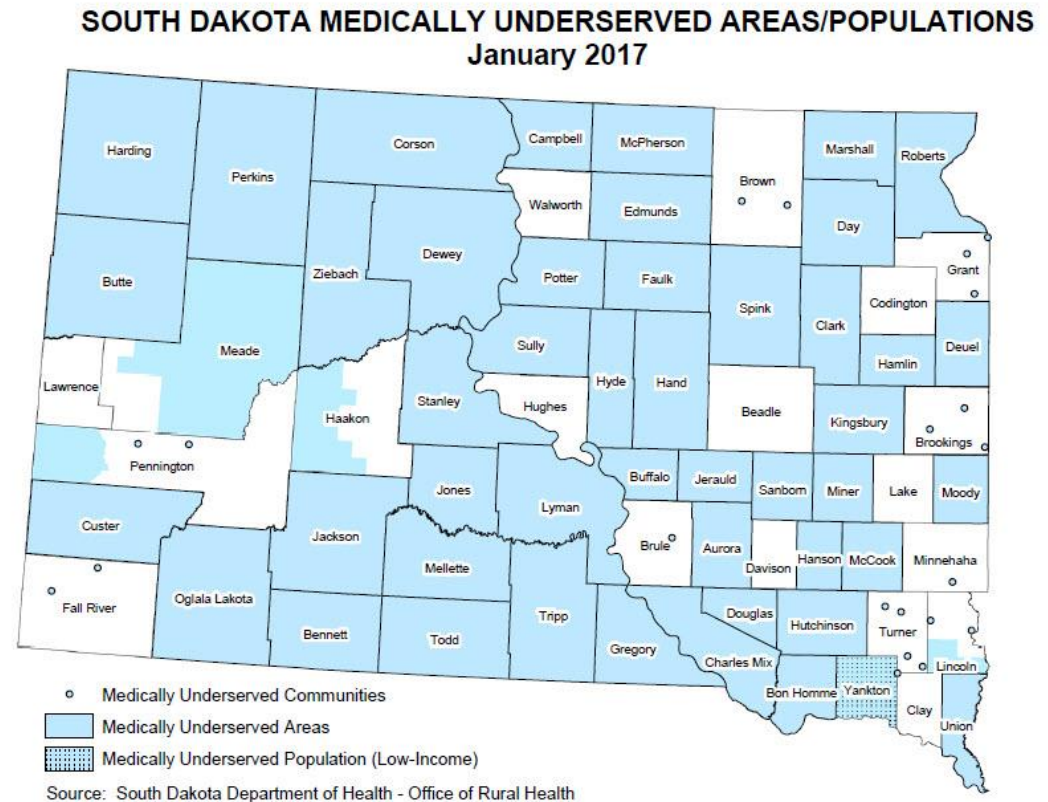
Health Professional Shortage Areas (HPSAs)

- **Health Professional Shortage Areas (HPSAs)** “are designated by HRSA as having shortages of primary medical care, dental or mental health providers and may be geographic (a county or service area), demographic (low income population) or institutional (comprehensive health center, federally qualified health center or other public facility).”



Medically Underserved Areas/Populations (MUA/Ps)

- **Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs)** “identify geographic areas and populations with a lack of access to primary care services.”



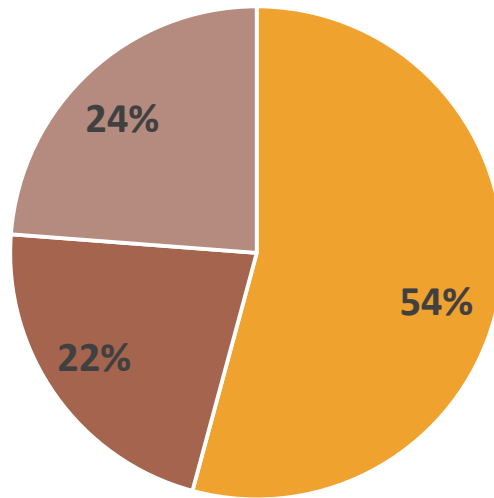


Access to Diabetes Care and Education

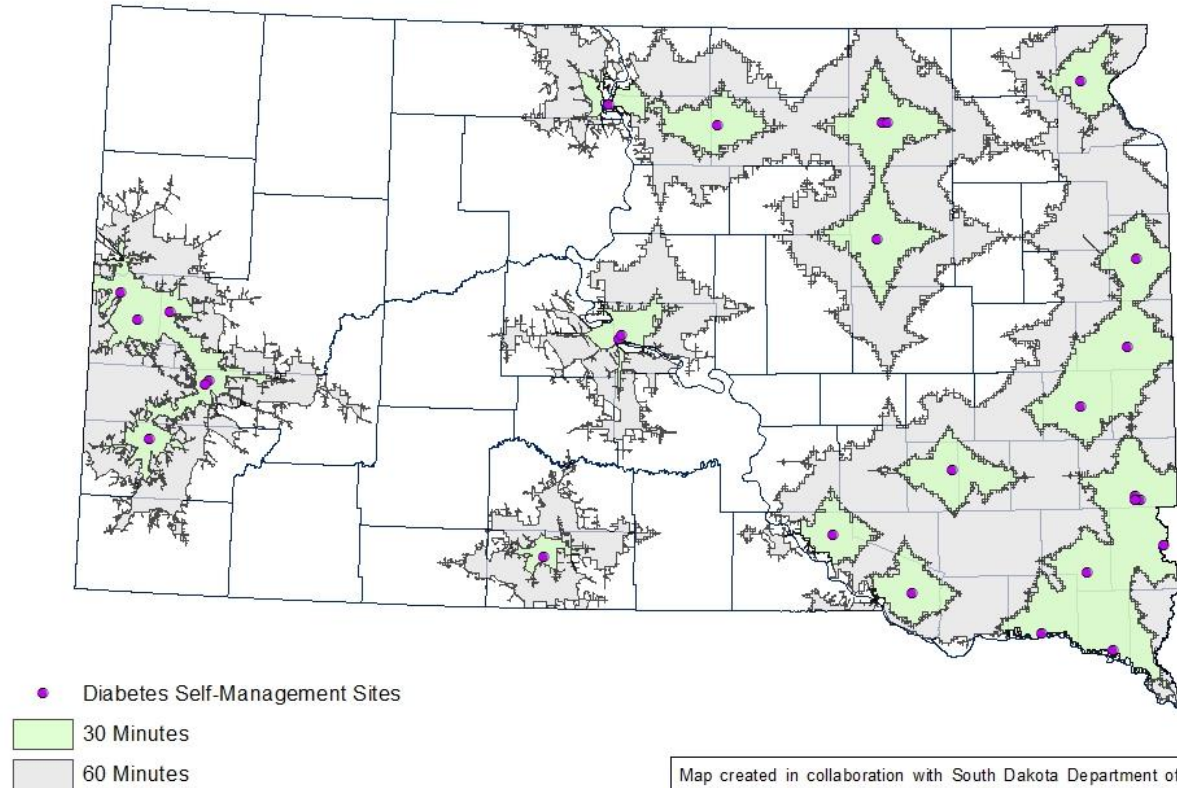
Diabetes Self-Management Education/Training (DSME/T)

- Diabetes Self-Management Education/Training (DSME/T) - is the process of facilitating the knowledge, skill, and ability necessary for diabetes self-care.
- Currently, there are 28 DSME/T sites in South Dakota recognized by either the American Diabetes Association (ADA), American Association of Diabetes Educators (AADE) and/or the South Dakota Department of Health Diabetes Education Recognition Program (SD DOH DERP).
- As of April 2017, 54.2% (469,076) of South Dakotans are within a half-hour drive time and 22% (190,400) are within an hour drive time of a DSME/T site. The remaining 23.8% (205,978) South Dakotans live greater than one hour from the nearest DSME/T site in South Dakota.

Drive Time to Diabetes Self-Management Education/Training (DSME/T)



- Less than 30 minutes
- Less than 60 minutes, but greater than 30 minutes
- Greater than 60 minutes

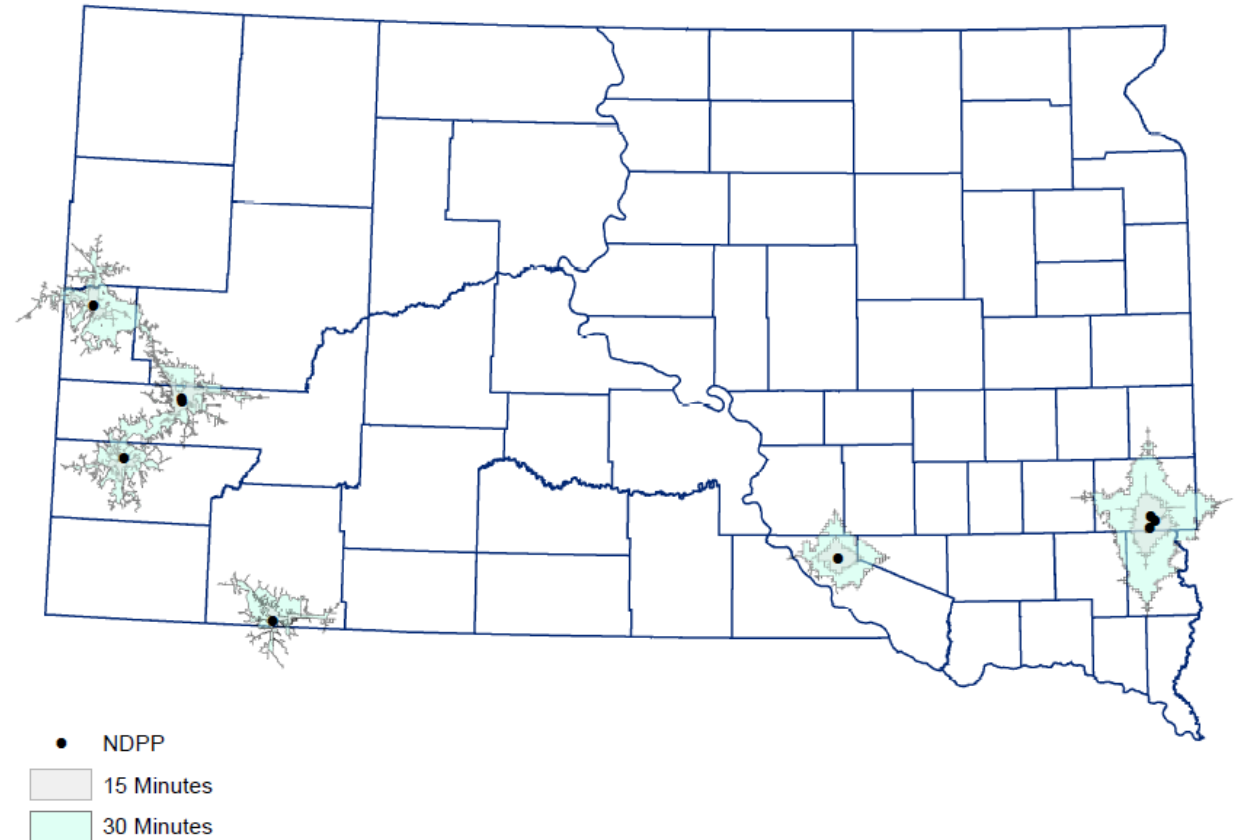
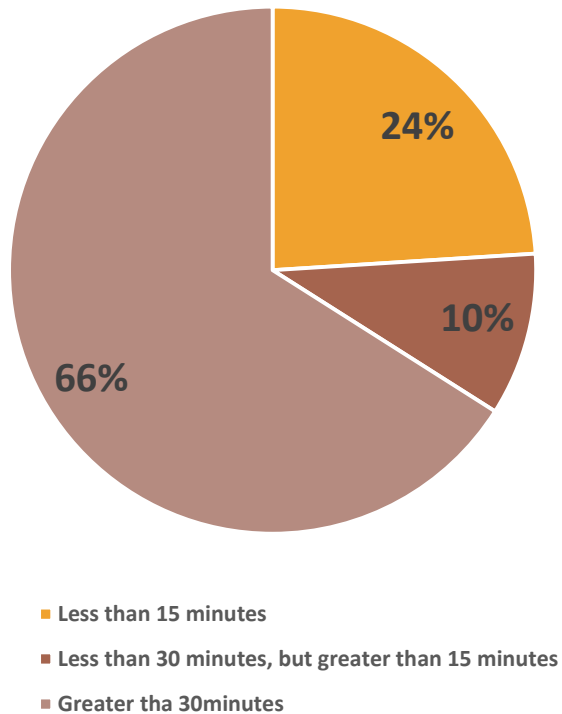


Map created in collaboration with South Dakota Department of Health, Office of Chronic Disease Prevention and Health Promotion. May, 2017

CDC National Diabetes Prevention Program (NDPP)

- The CDC National Diabetes Prevention Program (NDPP) is a structured lifestyle change program specifically developed to prevent type 2 diabetes. It consists of 24 sessions conducted over a year long period.
- Currently, there is 1 fully recognized site in South Dakota and 8 sites with pending recognition.
- As of May 2017, 24% (207,709) of South Dakotans are within a 15 minute drive time and an additional 10% (86,545) are within a half hour drive time of a DSME/T site. The remaining 66% (571,200) South Dakotans live greater than 30 minutes from the nearest NDPP site in South Dakota.

Drive Time to National Diabetes Prevention Program (NDPP)





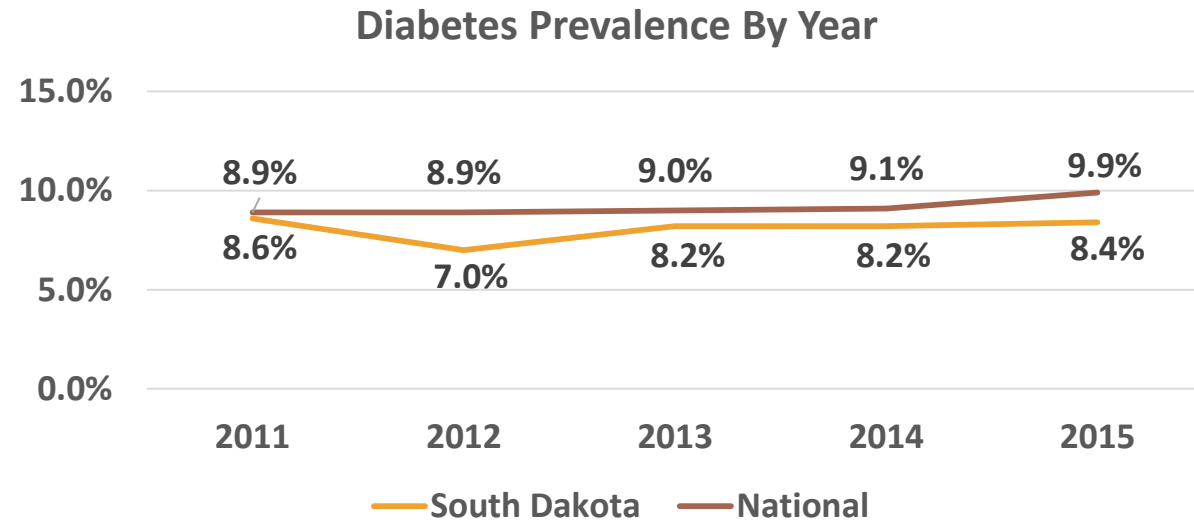
CDC Behavioral Risk Factor Surveillance System (BRFSS)

Behavioral Risk Factor Surveillance System (BRFSS)

- The Behavioral Risk Factor Surveillance System (BRFSS) is the nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services.
- BRFSS is conducted yearly by the Centers for Disease Control and Prevention (CDC)
- South Dakota does not ask all diabetes-related BRFSS data annually, and thus many questions are only asked during even-numbered years (2012, 2014, etc.).

Prevalence of Diabetes (2011 – 2015)

	2011	2012	2013	2014	2015
South Dakota	8.6%	7.0%	8.2%	8.2%	8.4%
Nationwide median	8.9%	8.9%	9.0%	9.1%	9.9%



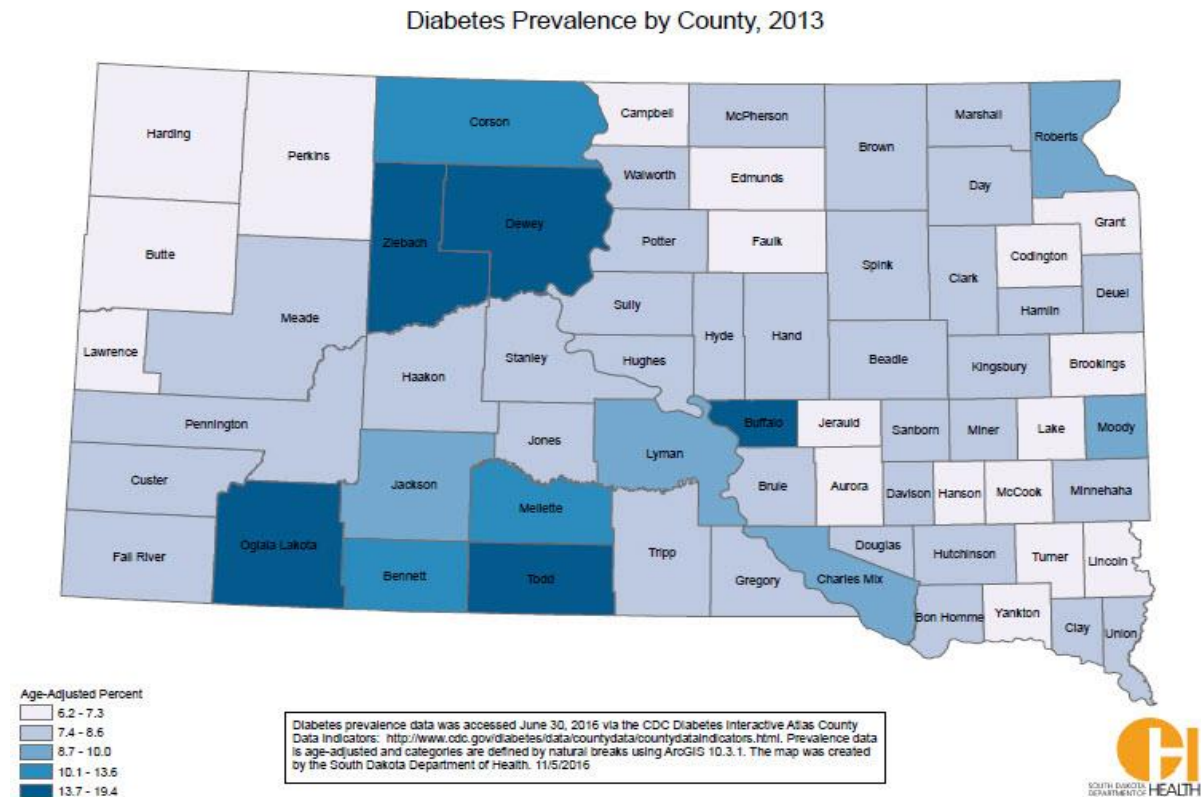
Prevalence of Diabetes (2011 – 2015) (Cont.)

	2011	2012	2013	2014	2015
Total Population	620,127	628,911	636,813	642,802	647,145
Estimated Population with Diabetes	53,330	44,023	52,219	52,710	54,360

Calculations based on adults aged 18 and older.

Diabetes Prevalence by County, 2013

County	2013
Todd County	19.4%
Oglala Lakota County	17.3%
Buffalo County	17.0%
Ziebach County	16.7%
Dewey County	15.2%
Bennett County	13.6%
Corson County	12.6%
Mellette County	11.2%
Jackson County	10.0%
Roberts County	9.9%



BRFSS Preventative Measures

2012 to 2014
comparison

From 2012 to 2014, South Dakota improved on 3 of 9 preventative measures related to diabetes care and prevention of complications.

Improved: 2012 – 2014

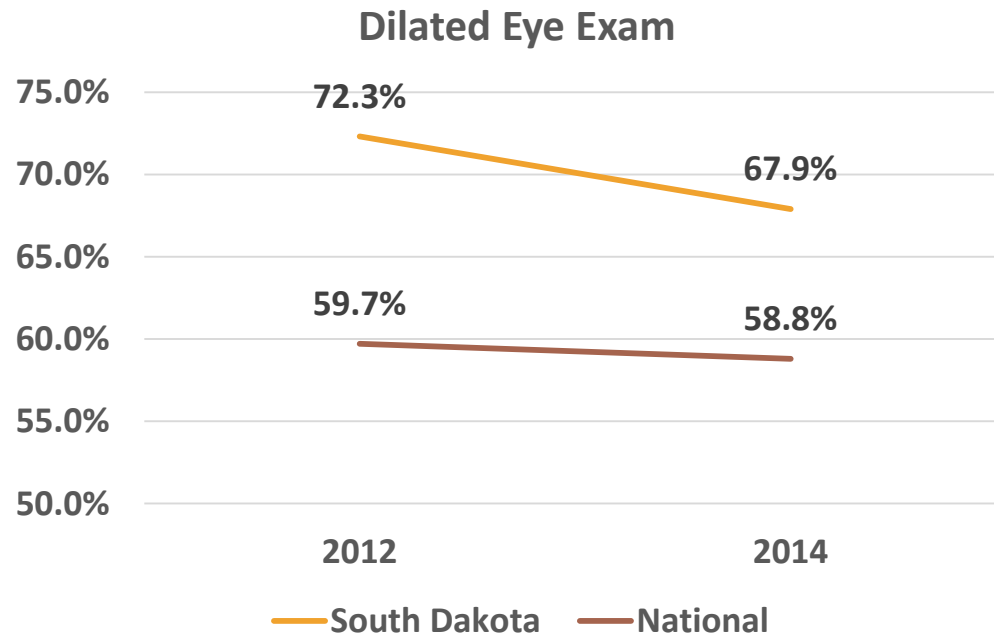
- Visit to a Health Professional for Diabetes
- Two or More A1C Checks (within the past year)
- Attend a DSME/T class (at any time)

Declined: 2012 – 2014

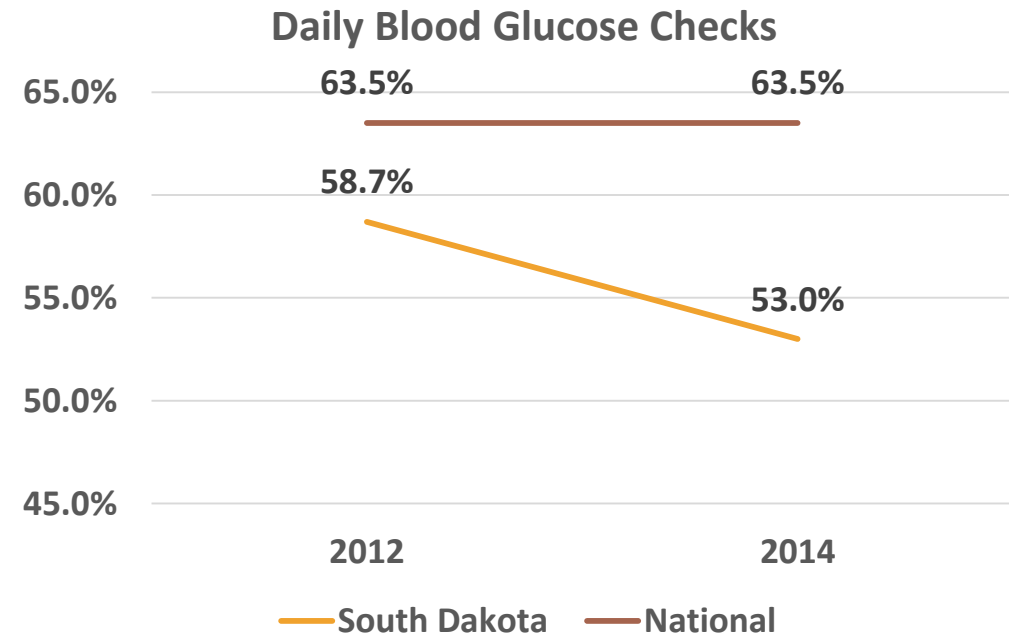
- Dilated Eye Exam (within the past year)
- Daily Blood Sugar Checks
- Foot Exam by Health Professional (within the past year)
- Daily Foot Check
- Influenza Vaccination (within the past year)
- Pneumonia Vaccination (at any time)*

Preventative Measures

DILATED EYE EXAM

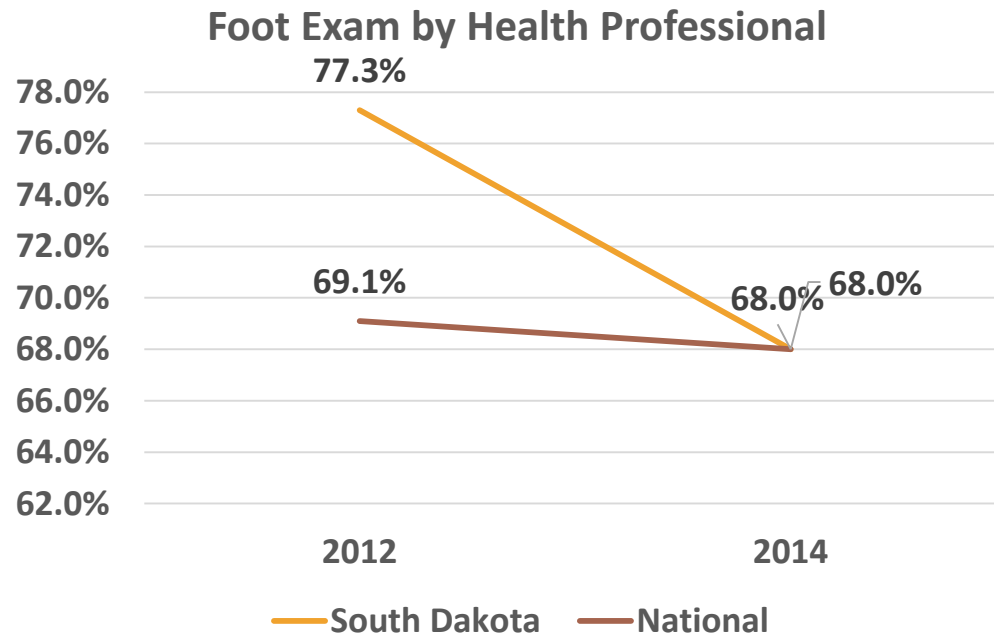


DAILY BLOOD GLUCOSE CHECKS

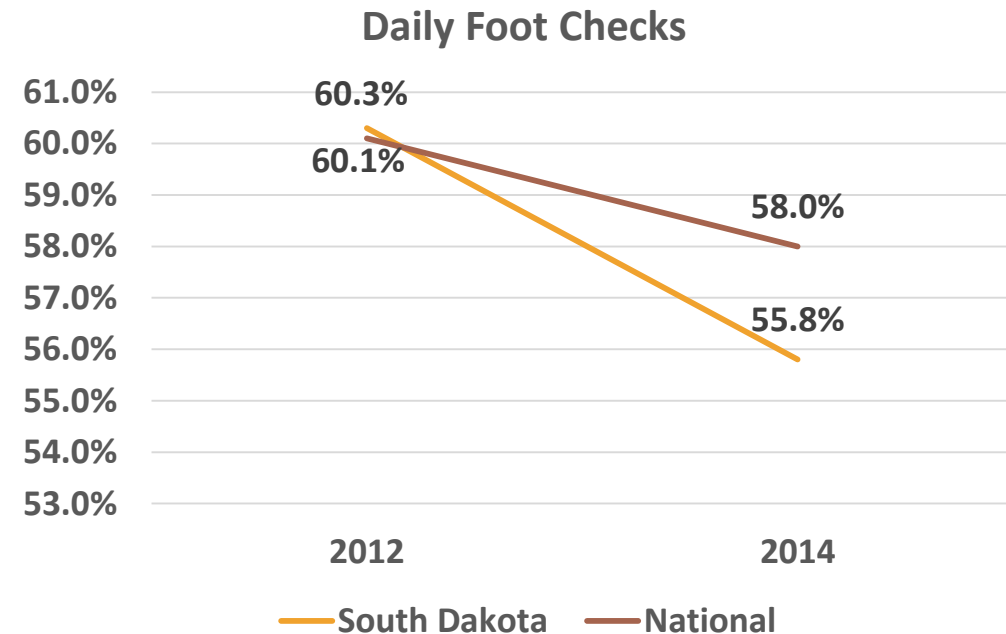


Preventative Measures (Cont.)

FOOT EXAM BY HEALTH PROF.

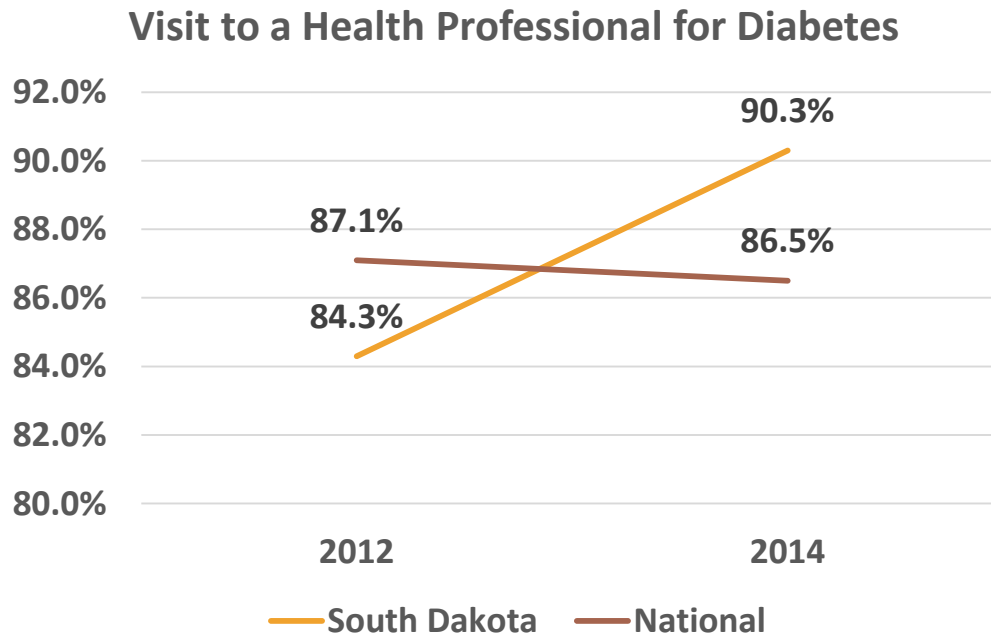


DAILY FOOT EXAM

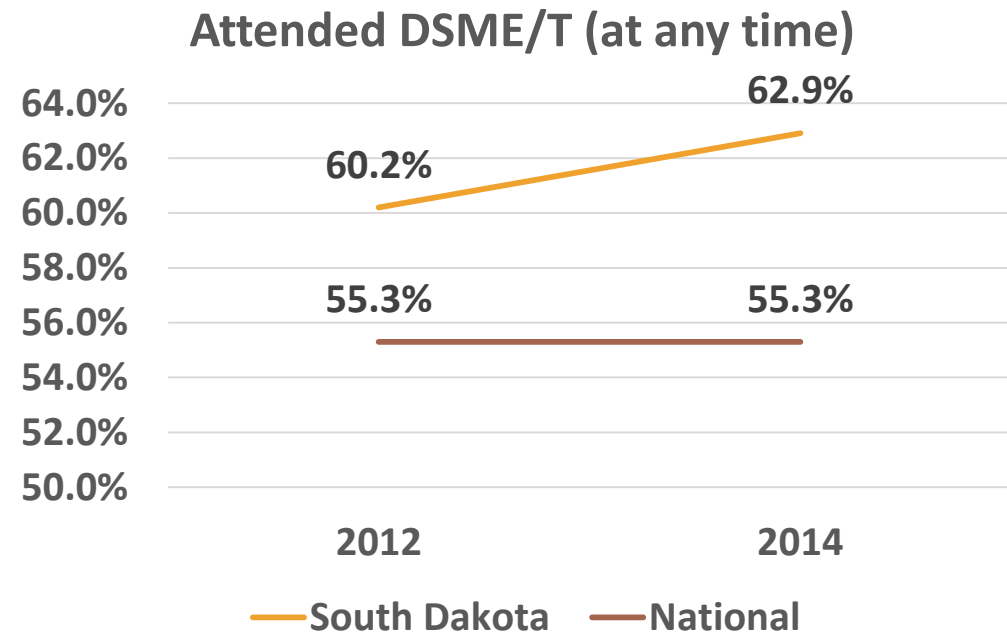


Preventative Measures (Cont.)

VISIT TO A HEALTH PROF.

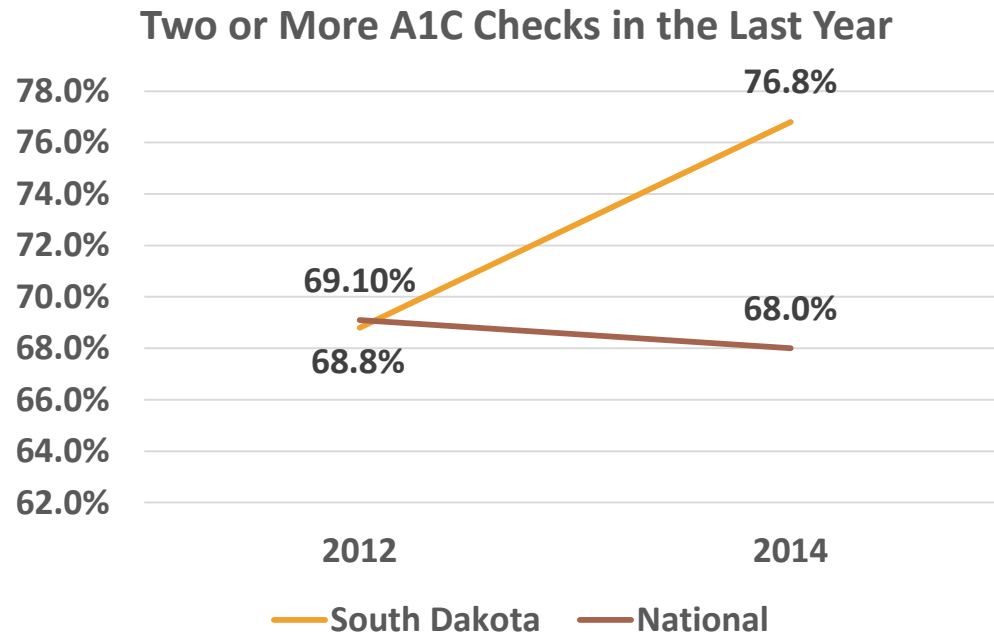


ATTENDED DSME/T (AT ANY TIME)

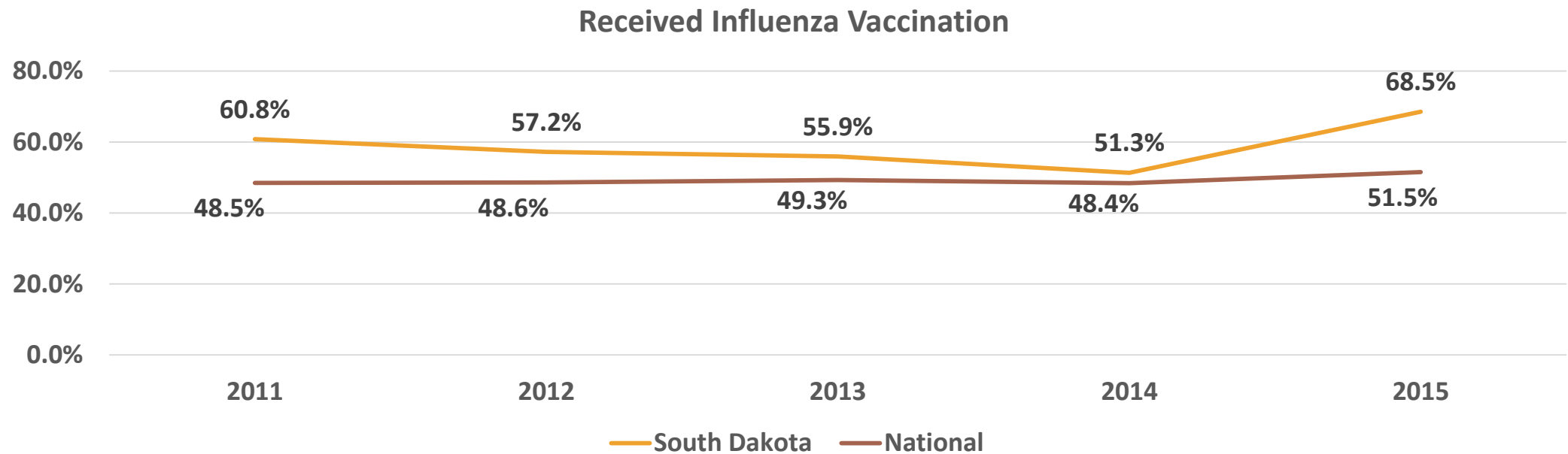


Preventative Measures (Cont.)

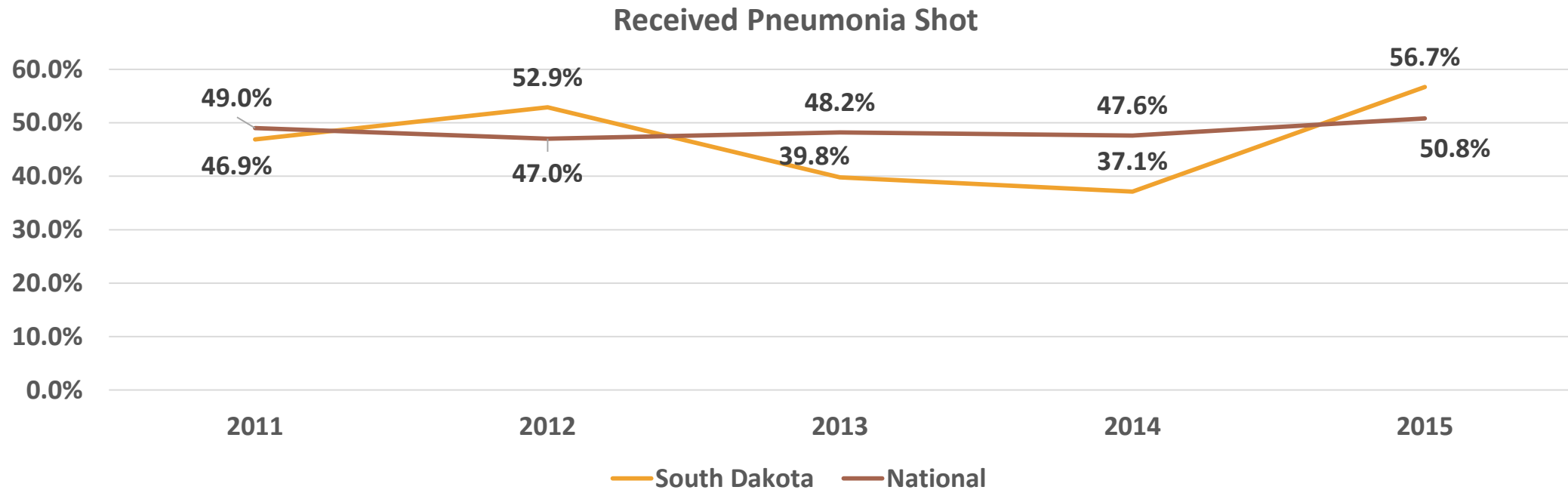
TWO OR MORE A1C CHECKS



Influenza Vaccine



Pneumonia Vaccination (at any time)



BRFSS Complicating Factors

2011 to 2015
comparison

BRFSS also provides data based on complicating factors relating to the care for patients with diabetes. The following were analyzed for South Dakota from 2011 to 2015:

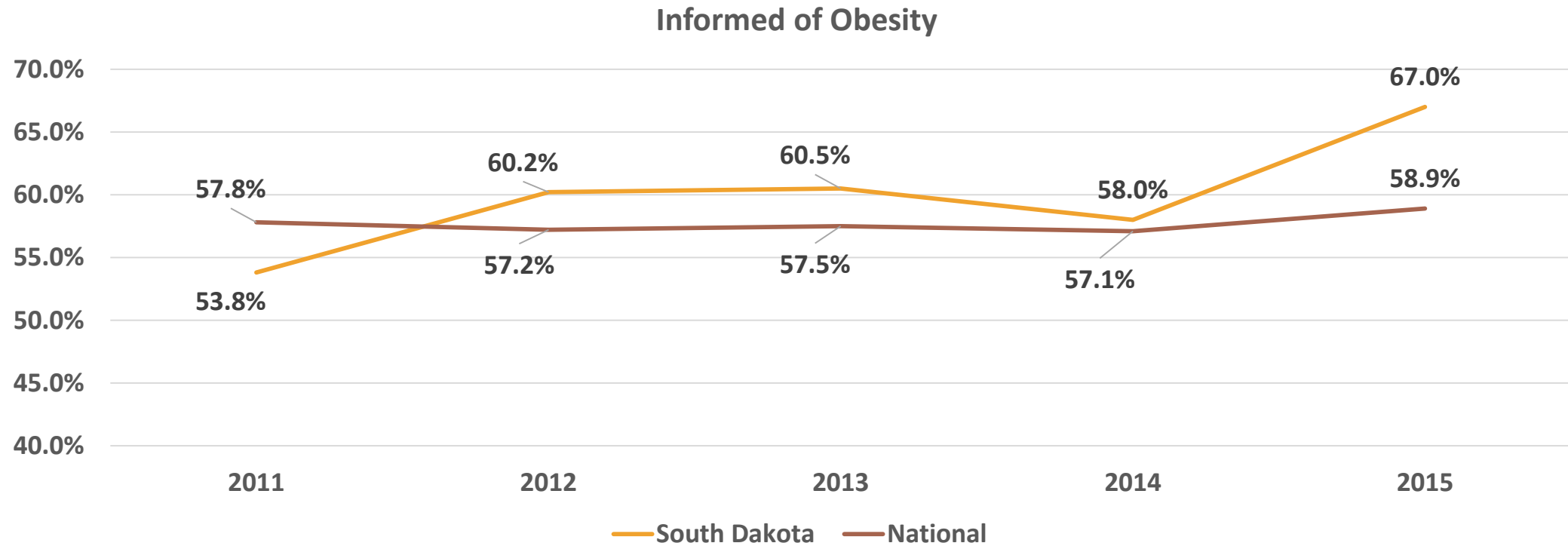
Decrease in Complicating Factors

- Physical Inactivity

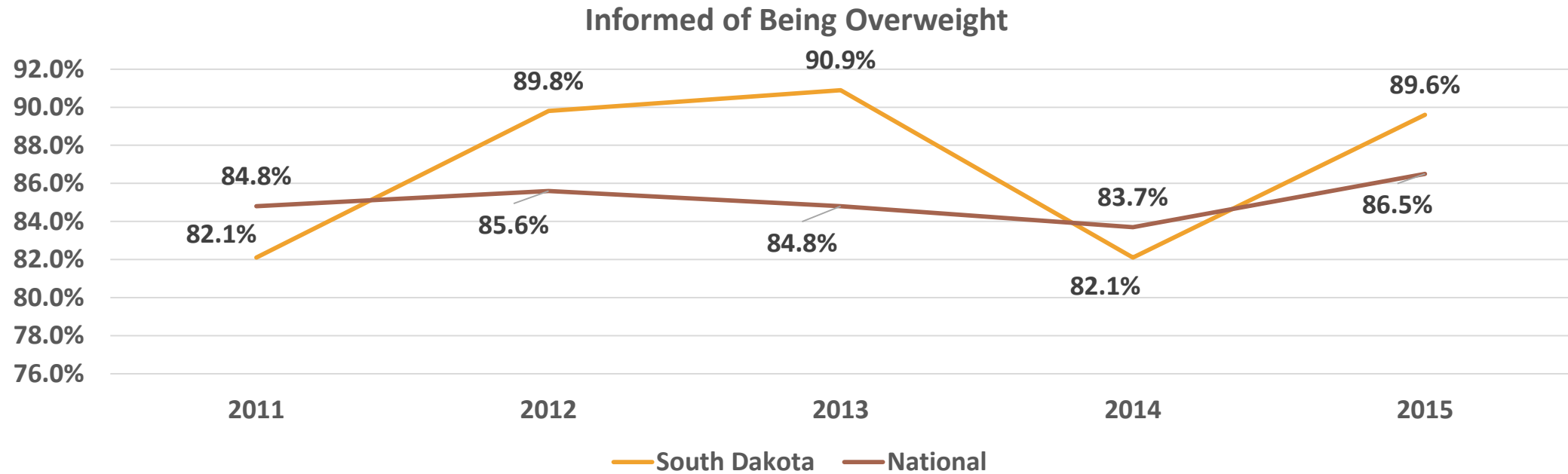
Increase in Complicating Factors

- Obese
- Overweight

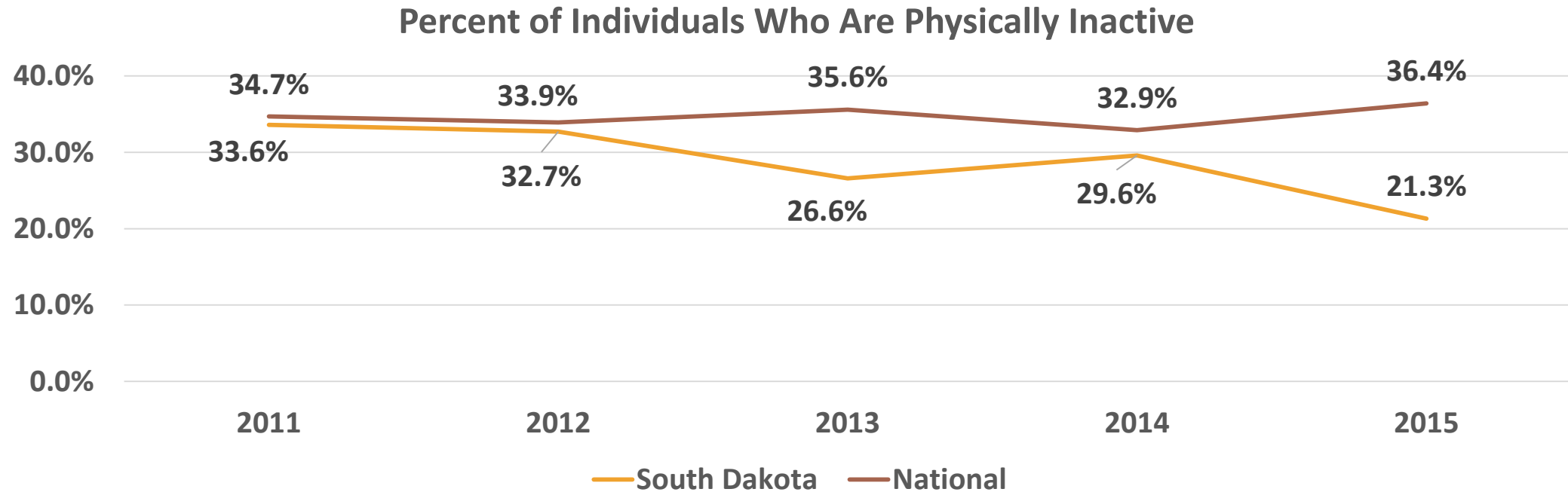
Informed of Obesity



Informed of Being Overweight



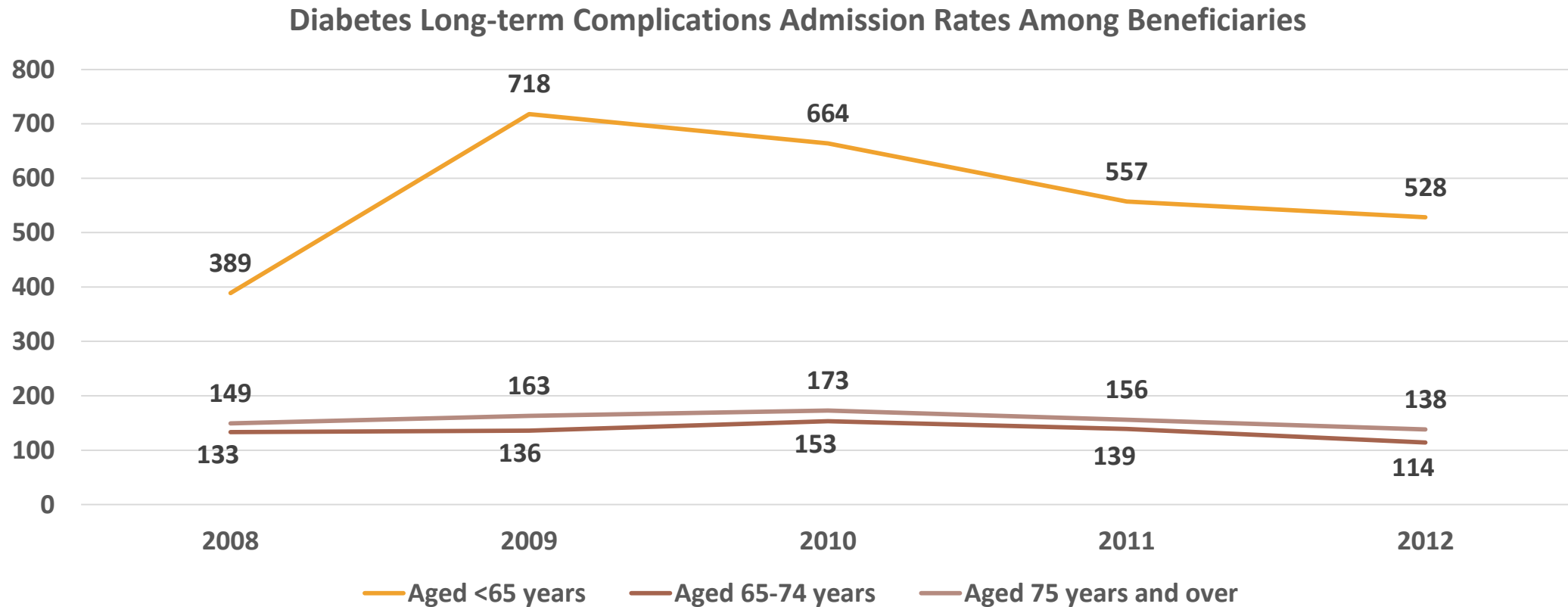
Percentage of Individuals Physically Inactive





Centers for Medicare and Medicaid Services (CMS) Data

Long-term Complications Admission Rates, Medicare Beneficiaries



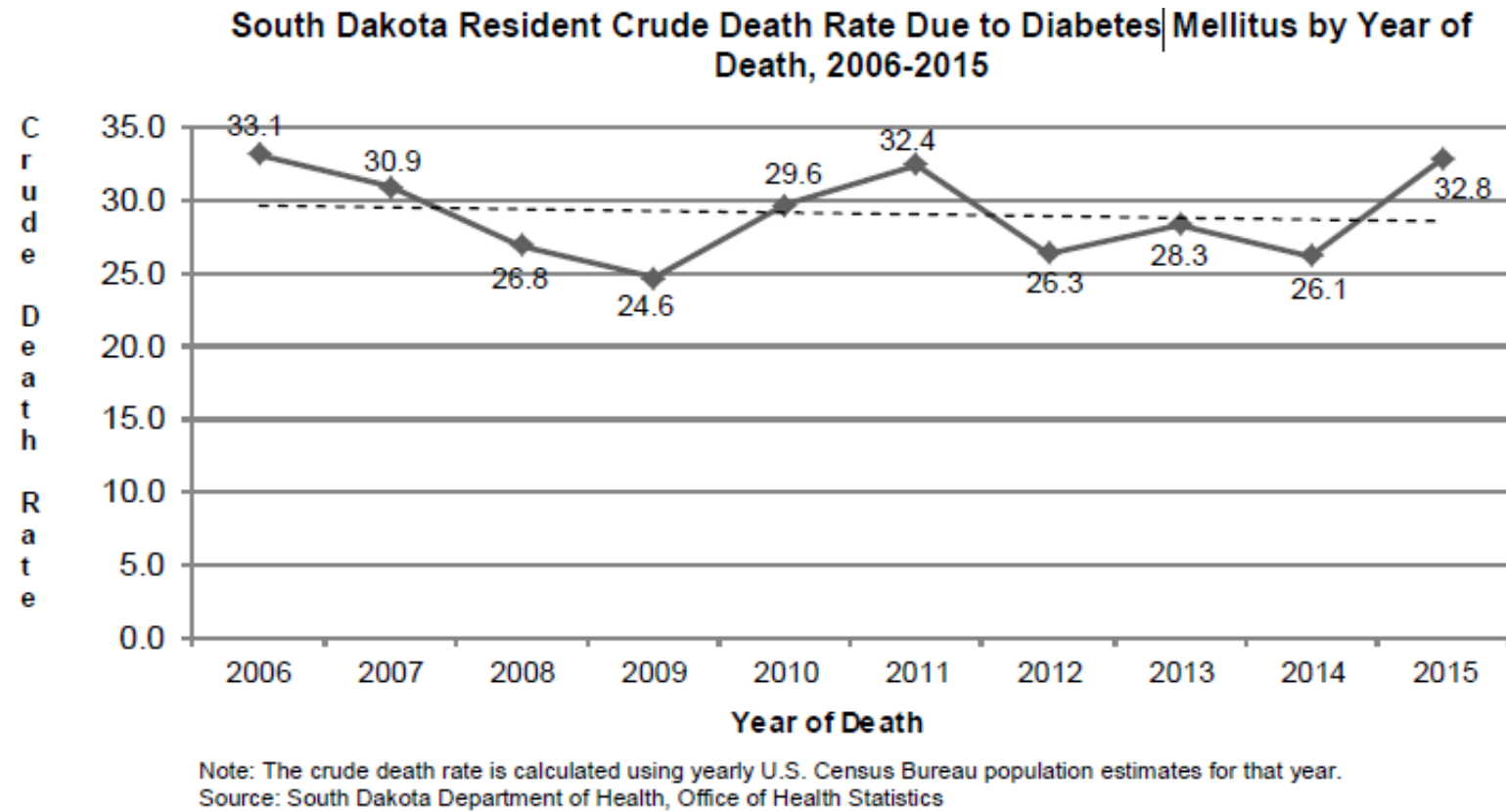


South Dakota Department of Health Vital Statistics

Mortality, Deaths Associated with Diabetes

Cause of Death	Number of Deaths											
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
All Causes	6,811	7,074	7,038	6,800	7,056	6,913	7,087	7,271	7,283	7,079	7,500	7,724
Diabetes	227	239	261	246	216	200	241	267	219	239	223	282
Percent of all deaths	3.3%	3.4%	3.7%	3.6%	3.1%	2.9%	3.4%	3.7%	3.0%	3.4%	3.0%	3.7%

Mortality, Deaths Associated with Diabetes (Cont).



Mortality by Race (due to diabetes)

Race	Total Deaths (2015)	Percent of All Deaths, by Race (2015)
White	224	3.2%
American Indian	53	8.3%
All Races	282	3.7%

Mortality by Gender (due to diabetes)

Race	Total Deaths (2015)	Percent of All Deaths, by Race (2015)
Male	149	3.8%
Female	133	3.5%
Total	282	3.7%

Median Age at Death

	2011	2012	2013	2014	2015
Total Deaths	77	77	77	80	73
Race					
White	81	79	80	81	77
American Indian	65	64	59	64	64
Gender					
Male	75	72	73	74	70
Female	80	80	81	80	78

Years of Potential Life Lost (YPLL) Before Age 75 Associated with Diabetes in South Dakota

	2011	2012	2013	2014	2015
YPLL	1,910	1,459	1,401	1,560	2,204
YPLL, Age Adjusted					
White	154	108	100	108	184
American Indian	1,180	972	1,068	1,127	1,340



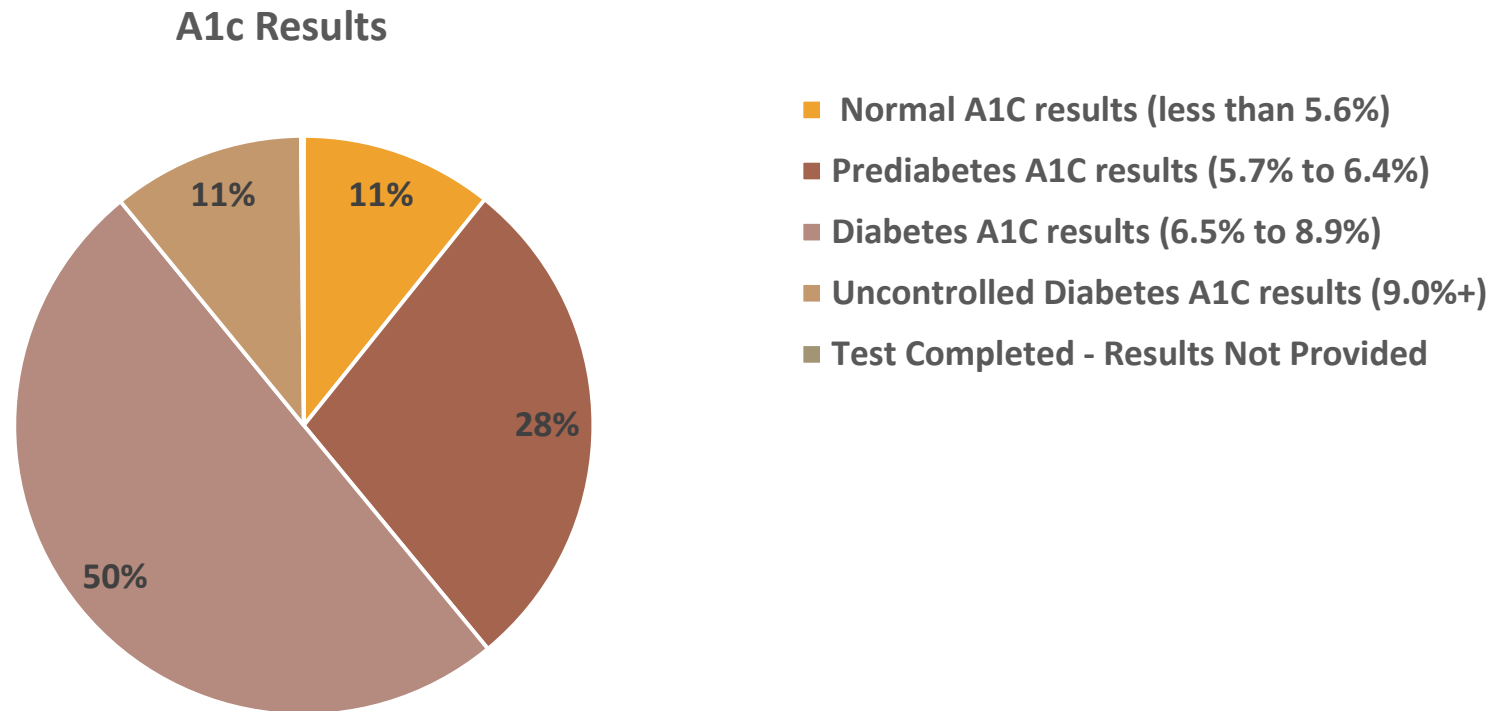
Snapshot of A1c Data in South Dakota

A1c Data Request

- In May of 2017, A1c Data request was sent to Avera Health, Falls Community Health, Horizon Health Care, Regional Health, and Sanford Health, asking for A1c test results administered within the past year (2016).
- The following data was requested:
 - A1c test result
 - Gender
 - Age
 - ZIP Code (not analyzed at this time)
- In total, 29,032 A1c results were obtained from the 5 organizations (note: not all organizations responded with data and not all organizations responded with data from all EMR sources, and thus this data provides a “snapshot” of data for South Dakota).

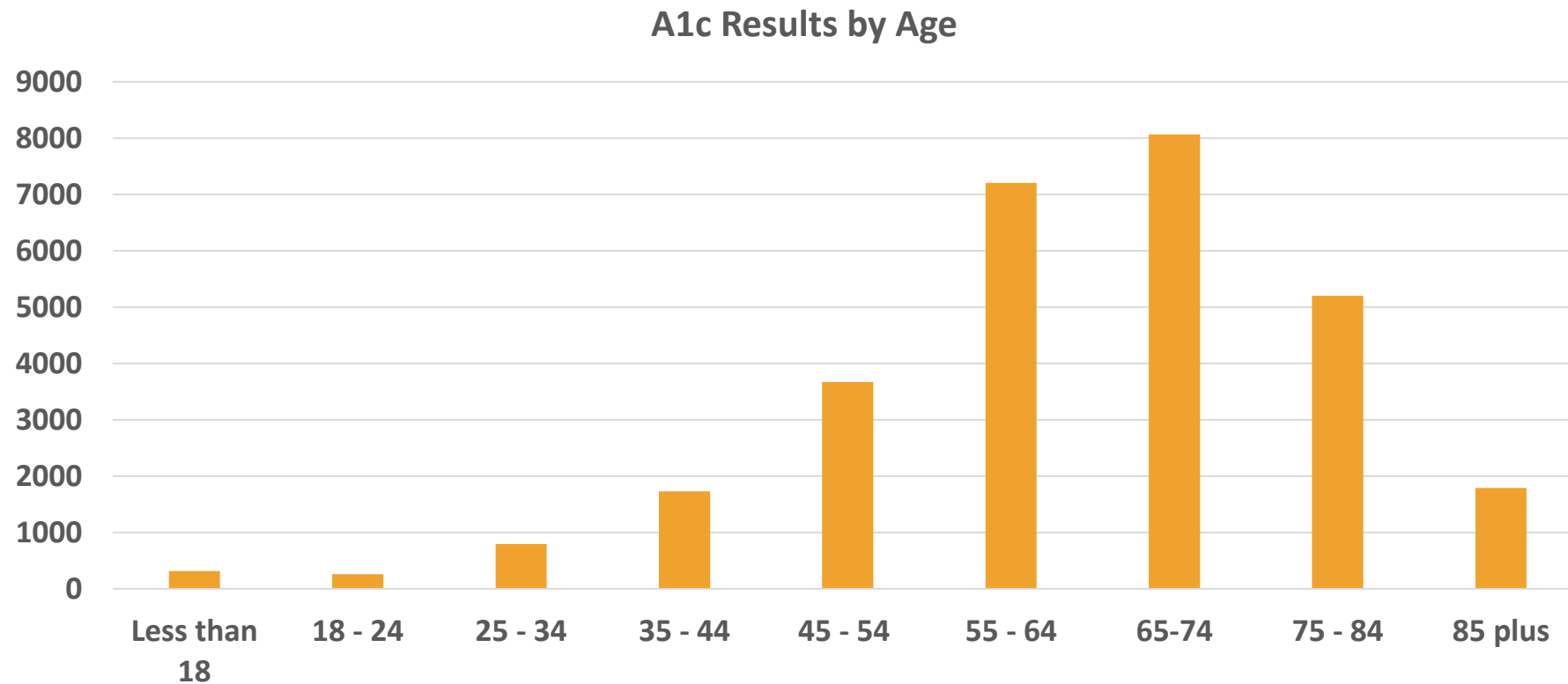
A1c Results

■ n= 29,032



A1c Results - Age

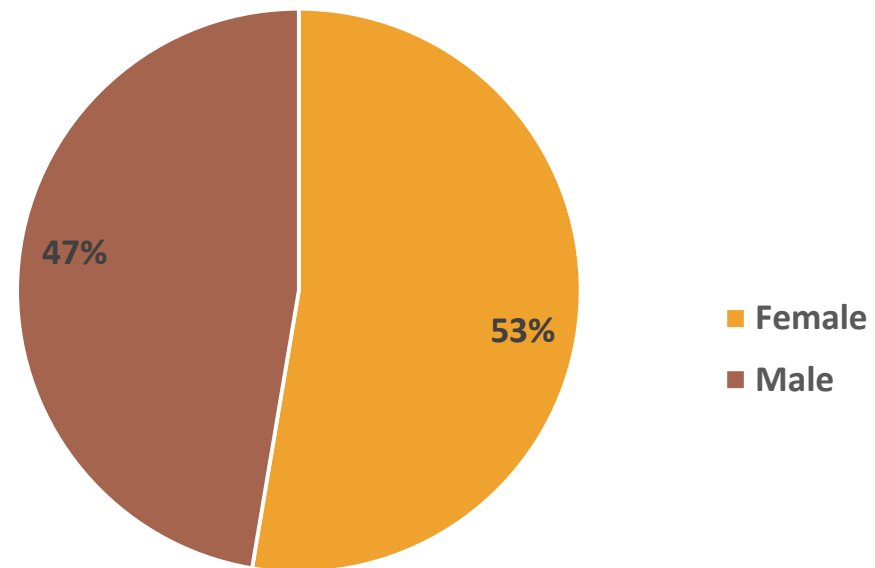
■ n= 29,032



A1c Results - Gender

■ n= 15,696

A1c Results by Gender

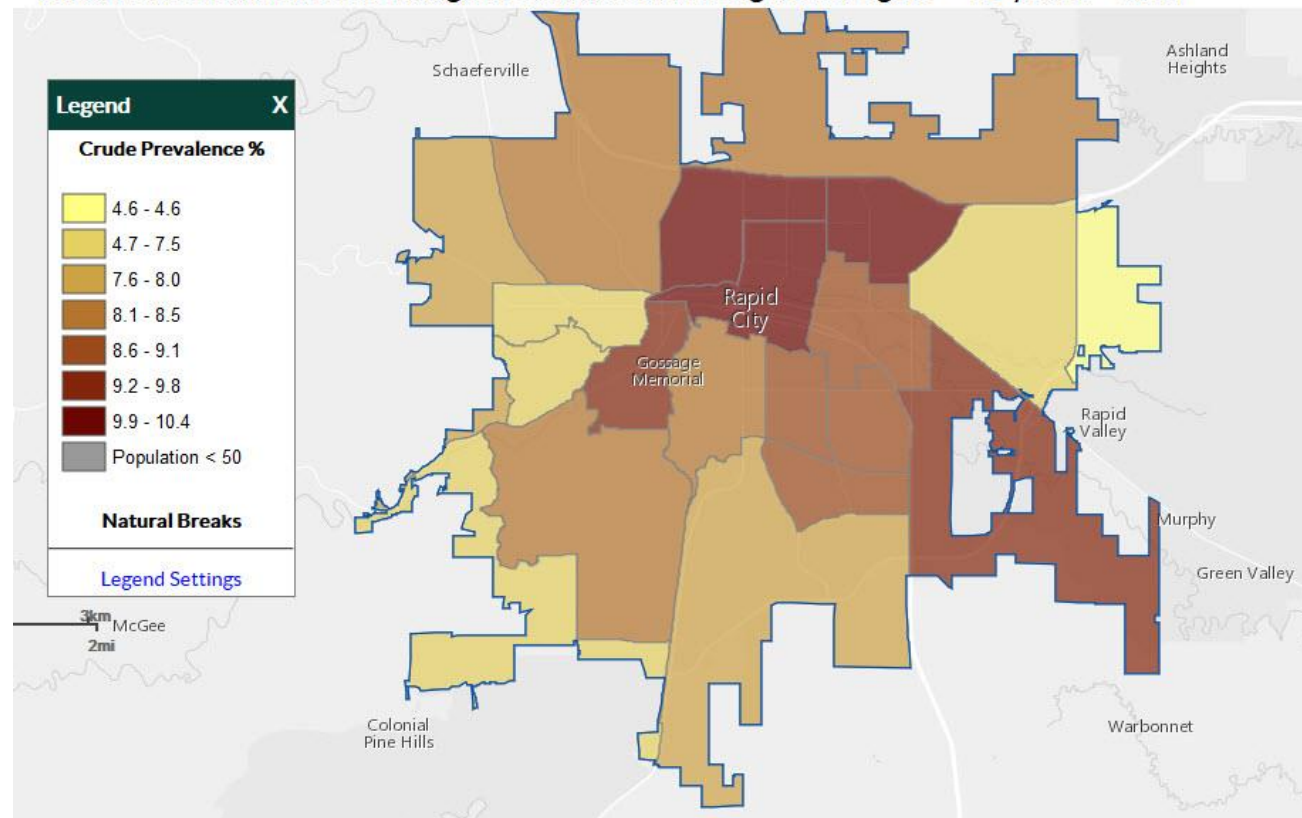




CDC 500 Cities Project

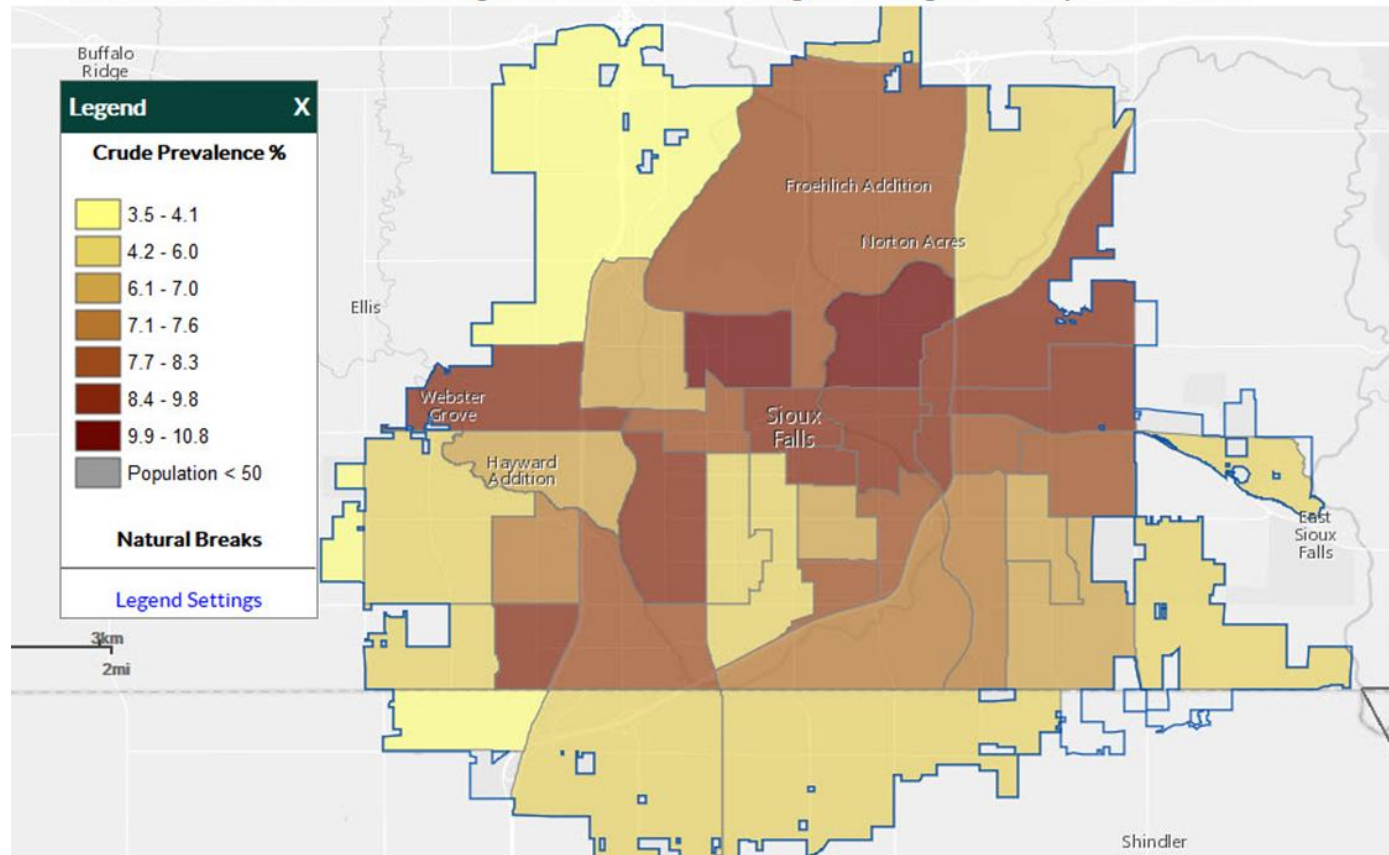
500 Cities Project: Rapid City

Model-based estimates for diagnosed diabetes among adults aged ≥ 18 years – 2014



500 Cities Project: Sioux Falls

Model-based estimates for diagnosed diabetes among adults aged ≥ 18 years - 2014





Next Steps: Review of Draft Plan