

Baseline Health Data Report: Cambria and Somerset Counties, Pennsylvania 2017 – 2018

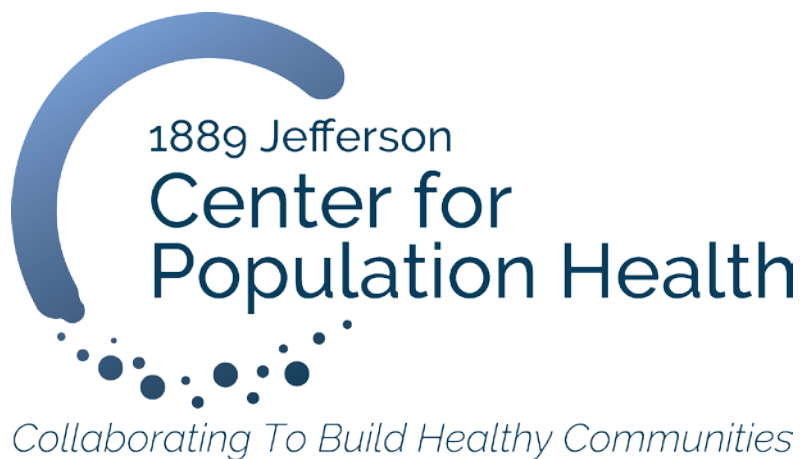


Table of Contents

Executive Summary	4
Demographic and Economic Characteristics	6
Race and Ethnicity (US Census, 2018)	6
Migration and Duration of Residence	7
Educational Attainment	7
Income and Employment (US Census 2017)	7
Health and Health Insurance	8
Health Focus Areas	10
Diabetes	10
Diabetes Related Hospitalizations	11
Mean BMI and Obesity Prevalence	12
Physical Inactivity (CDC 2013)	133
Mental Health	133
Smoking Cessation	133
Major Causes of Death	144
Diseases of despair (PDOH 2016)	144
References	155

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Executive Summary

The document presents in great detail a wide range of up-to-date sociodemographic, economic, population health, and clinical-related data for Cambria and Somerset counties located in Southwestern Pennsylvania. It is divided into three separate sections, depending on the nature of the data that is presented in each one. The first section gives an overview of the socio-demographic profile of Cambria and Somerset, relying on a plethora of official data sources. The second section gives an overview of the counties' situation in terms of population health, with interest primarily focused on four areas: (a) diabetes, (b) obesity and physical inactivity, (c) mental health, and (d) tobacco use. Finally, in the third and last section of this report, major causes of death for Cambria and Somerset counties are presented. Illustrative figures, tables, and graphs are also included, as well as the sources that were used for producing this descriptive report.

Demographic and Economic Characteristics

The table below contains some of the most important socio-economic, and demographic characteristics of Cambria and Somerset counties in PA.

Characteristics	Cambria	Somerset
Population		
Population, 2017	133,054	74,501
Population, 2010	143,679	77,746
Age and Sex		
Females, (%)	50.8%	47.9%
Persons 65 years and over, (%)	22.0%	21.9%
Race and Hispanic Origin		
White alone, (%)	94.1%	95.6%
Black or African American, (%)	3.6%	2.9%
American Indian, (%)	0.1%	0.2%
Asian, (%)	0.6%	0.5%
Two or more, (%)	1.6%	0.8%
Housing		
Housing Units	65,972	38,458
Owner-occupied HU, (9%)	74.3%	77.9%
Families		
Households, 2012-2016	57,154	29,918
Language other than English, (%)	2.7%	4.1%
Educational Attainment		
HS Graduate, (%)	90.8%	87.8%
Bachelor's or Higher, (%)	20.9%	15.7%
Health		
With a disability, under 65, (%)	12.9%	10.9%
Uninsured, under 65(%)	6.0%	7.7%
Uninsured, above 65 (%)	0.20%	0.70%
Overall Health Outcome	64/67	34/67
Income & Poverty		
Median Household Income, (%)	\$44,943	\$46,132
Per Capita Mean Income, (%)	\$24,838	\$23,877
Persons below Poverty, (%)	15.0%	12.6%
Economy		
Labor force for 16+, total, (%)	55.0%	55.1%
Unemployment Rate**, 2017 (%)	6.1%	6.1%

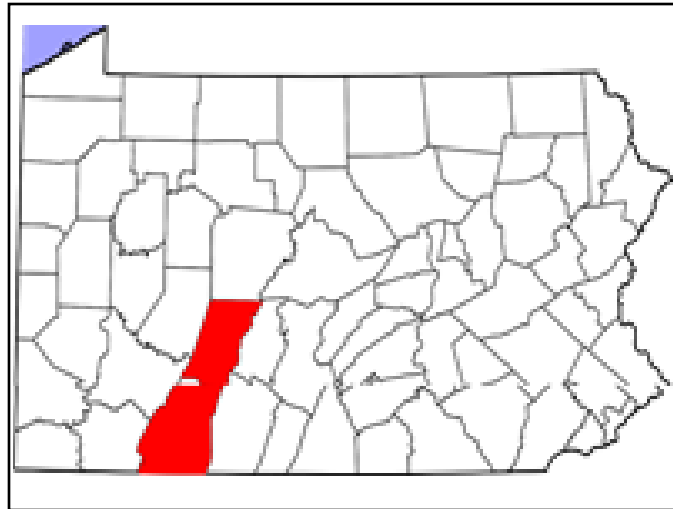
Table 1 Socio-demographic, and Economic Characteristics of Cambria and Somerset, Source: [Census Quick Facts](#)

* County Health Rankings, 2017

** Bureau of Labor Statistics

Cambria County has a population of approximately 133,000 and a population density of 208.7 (based on 2010 census estimates; see here: <https://bit.ly/2C5B1W1>) people per square mile. The largest metropolitan area in Cambria County is Johnstown, with a population of 20,000 people. Somerset County has a population of approximately 74,500 (Census; 2017) and a population density of 72.4 people per square mile. There are no metropolitan areas in Somerset County. The largest urban cluster is located in Somerset Borough, with a population of approximately 6,000 people. The following describes some key demographics of the people living in Cambria and Somerset Counties:

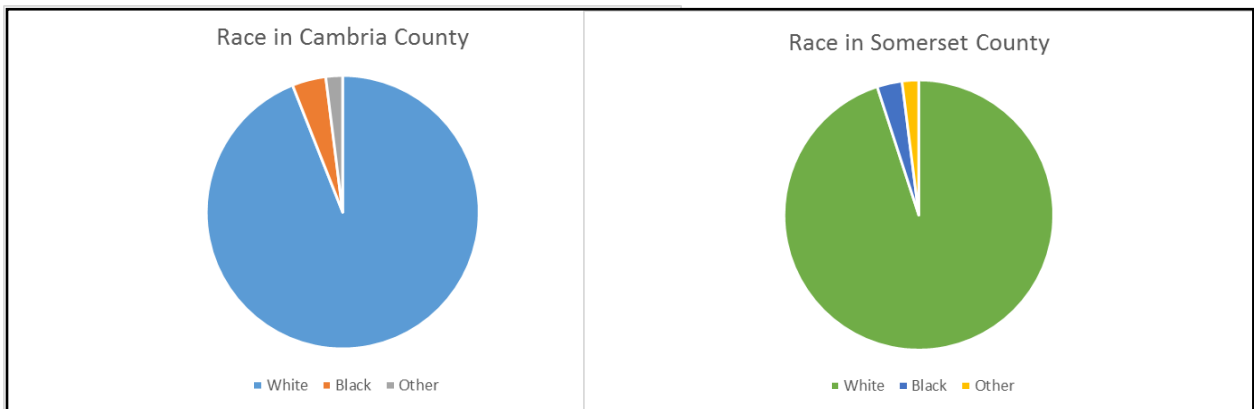
Figure 2. Location of Cambria and Somerset Counties, PA.



Race and Ethnicity (US Census, 2018)

- The majority of people report their race as White, **Figure 2**
 - In Johnstown, 15% of people are Black and 80% are White.
- 1.2% of residents in Cambria are born in a foreign country. The corresponding number for Somerset is 1% (US Census, Quick Facts).
- In Cambria, 2.7% speak a primary language other than English at home, and in Somerset the corresponding percentage is 4.1% (US Census, Quick Facts).

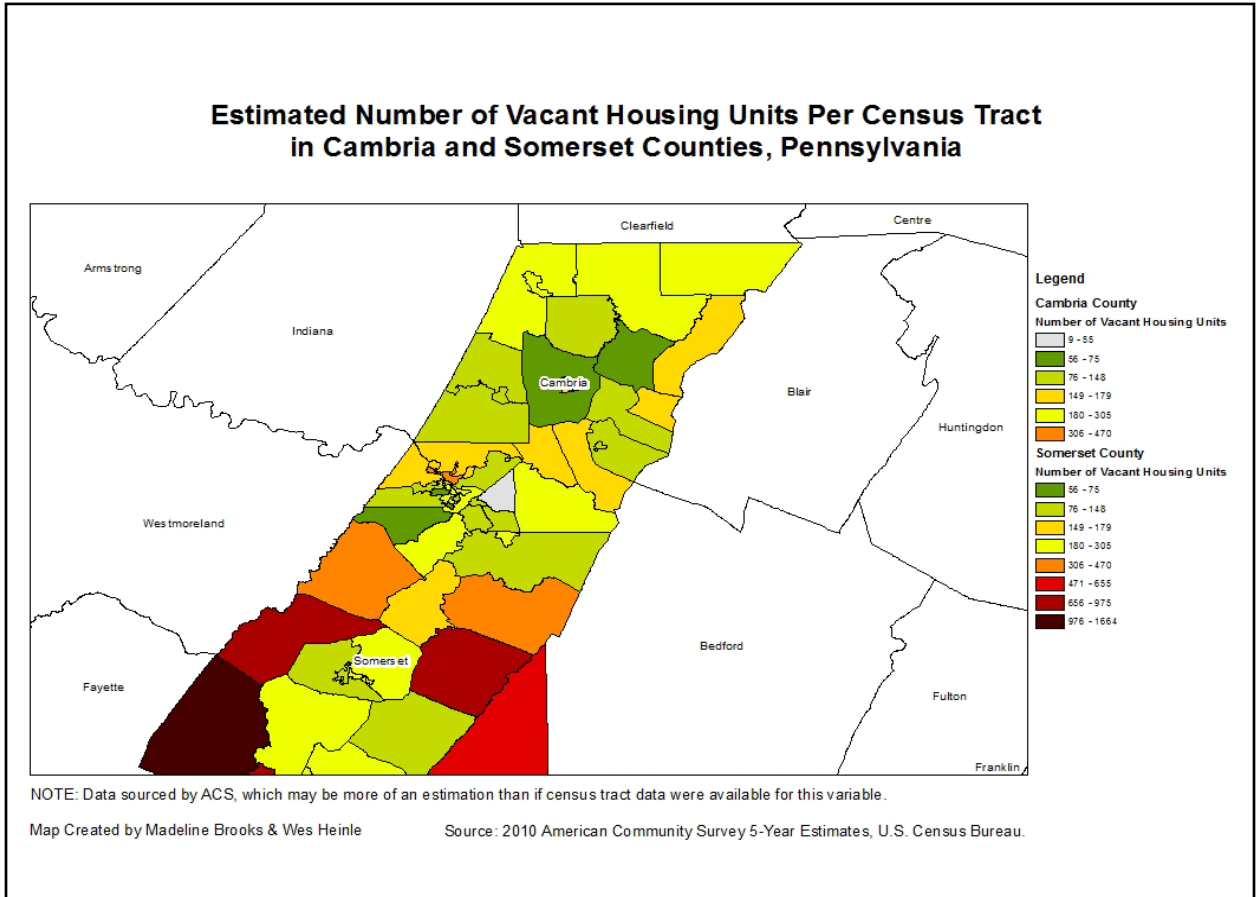
Figure 3. Race Demographics. U.S. Census, 2017.



Migration and Duration of Residence

- 75.6% (Census; 2017) of homes are owned by the residents that live in them, **Figure 4**.
- At the time of the 2010 census, 89-92% reported living in the same residence for over one year

Figure 4. Vacant Housing. *U.S. Census, 2016.*



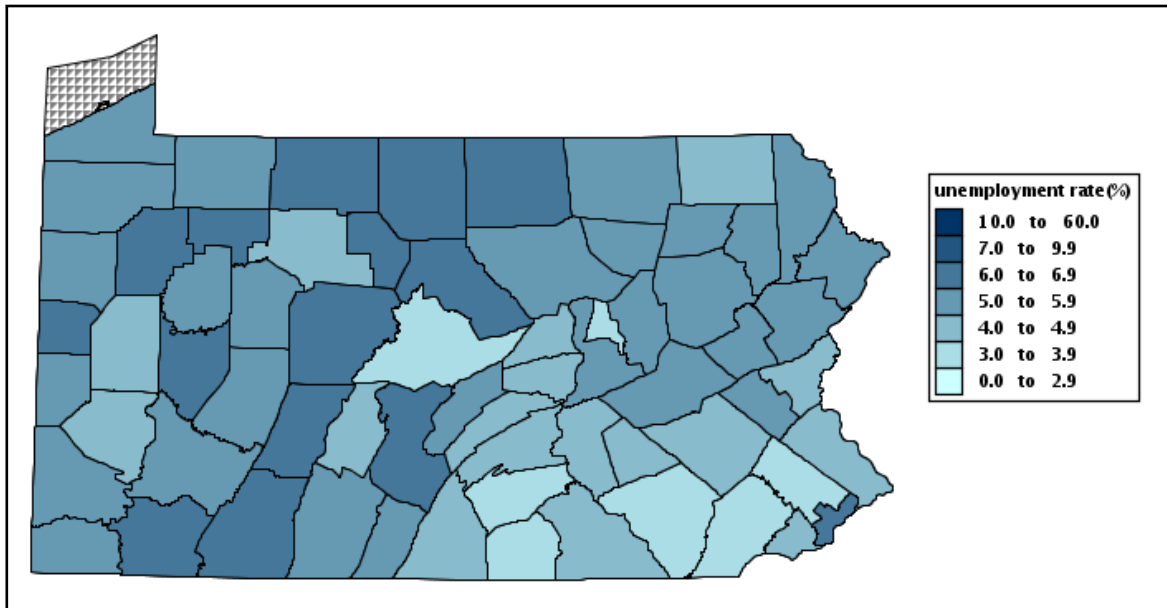
Educational Attainment (US Census 2017)

In Cambria County, 90.8% and in Somerset County 87.8% of adult residents are High School graduates or higher. The percent of people with bachelor’s degree or higher is 20.9% and 15.7% in Cambria and Somerset respectively.

Income and Employment (US Census 2017)

The median household income in Cambria and Somerset counties is \$44,943 and \$46,132, respectively. In Cambria, 15% and in Somerset 12.6% is living at or below the poverty level; this is determined annually by the US Census Bureau. The unemployment rate in 2017 is 6.1% in both Cambria and Somerset (BLS; Unemployment Rate, 2017(%)).

Figure 5. Unemployment Rates (Annual). U.S. Census, 2017



Health & Health Insurance (US Census 2018)

- 6.0 – 8.0% of people under age 65 are un-insured (Cambria: 6% and Somerset: 7.7%),
- 10-13% of people under age 65 are disabled (Cambria: 12.9% and Somerset: 10.9%)

In the table below, we present Census data about health insurance coverage in Cambria County, classified by type.

Health Insurance Coverage Status by Age	Cambria	Somerset
	Estimate	Estimate
Total:	132,115	70,780
Under 19 years:	28,087	14,568
With one type of health insurance coverage:	24,952	12,577
With employer-based health insurance only	13,627	7,099
With direct-purchase health insurance only	1,402	651
With Medicare coverage only	5	17
With Medicaid/means-tested public coverage only	9,648	4,736
With TRICARE/military health coverage only	270	74
With VA Health Care only	0	0
With two or more types of health insurance coverage:	2,397	1,142
With employer-based and direct-purchase coverage	230	125
With employer-based and Medicare coverage	0	3
With Medicare and Medicaid/means-tested public coverage	71	5
Other private only combinations	168	40
Other public only combinations	0	0
Other coverage combinations	1,928	969
No health insurance coverage	738	849
19 to 64 years:	76,630	41,314
With one type of health insurance coverage:	62,262	33,400

With employer-based health insurance only	45,961	25,044
With direct-purchase health insurance only	5,692	3,314
With Medicare coverage only	944	506
With Medicaid/means-tested public coverage only	8,932	4,205
With TRICARE/military health coverage only	425	126
With VA Health Care only	308	205
With two or more types of health insurance coverage:	7,827	3,495
With employer-based and direct-purchase coverage	1,184	456
With employer-based and Medicare coverage	559	187
With Medicare and Medicaid/means-tested public coverage	2,214	697
With Direct Purchase and Medicare Coverage	426	207
Other private only combinations	290	143
Other public only combinations	252	140
Other coverage combinations	2,902	1,665
No health insurance coverage	6,541	2,815
65 years and over:	27,398	14,898
With one type of health insurance coverage:	5,398	3,293
With employer-based health insurance only	403	151
With direct-purchase health insurance only	49	64
With Medicare coverage only	4,941	3,069
With TRICARE/military health coverage only	0	0
With VA Health Care only	5	9
With two or more types of health insurance coverage:	21,936	11,495
With employer-based and direct-purchase coverage	16	15
With employer-based and Medicare coverage	5,743	2,607
With direct-purchase and Medicare coverage	7,463	4,682
With Medicare and Medicaid/means-tested public coverage	1,632	793
Other private only combinations	0	0
Other public only combinations	793	294
Other coverage combinations	6,289	3,104
No health insurance coverage	64	110

Table 2 Health Insurance Coverage, classified by Type and Age, Source: ACS, 5-year estimates

Health Focus Areas

Diabetes

In order to estimate diabetes prevalence in Cambria and Somerset, we analyzed aggregated Behavioral Risk for Surveillance System (BRFSS) survey data, from 2013 to 2017, and produced both 3- and 5-year estimates. Due to small sample sizes, only the 5-year estimates are reported.

For obtaining robust estimates, we first had to reweight our sample. This is done using a method called Iterative Proportional Fitting (IPF), or Raking, and is the standard weighting method applied by CDC when handling BRFSS data (post-2011). From the initial dataset, we only focused on the Health Region in which the two counties belong. That said, we first reweighted sample data for a total of 10 counties (Armstrong, Beaver, Butler, Cambria, Greene, Fayette, Westmoreland, Washington, Somerset, and Indiana) that belong in Cambria's and Somerset's Health Region, and then conduct a domain analysis with diabetes being the variable of interest. The results are shown in figures below. Apart from diabetes prevalence, gender-adjusted estimates were also produced.

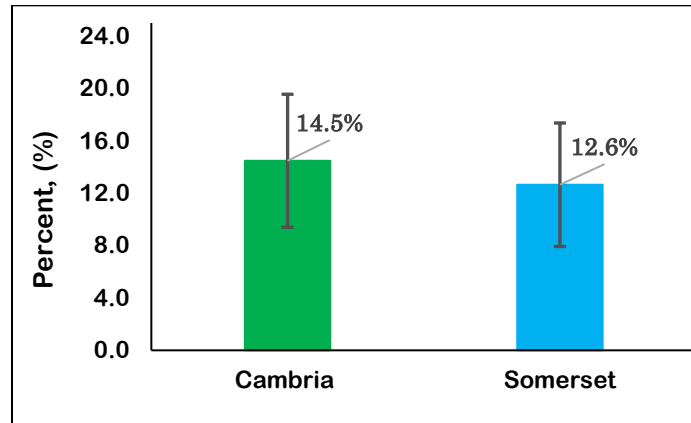


Figure 6 Diabetes Prevalence for Cambria and Somerset

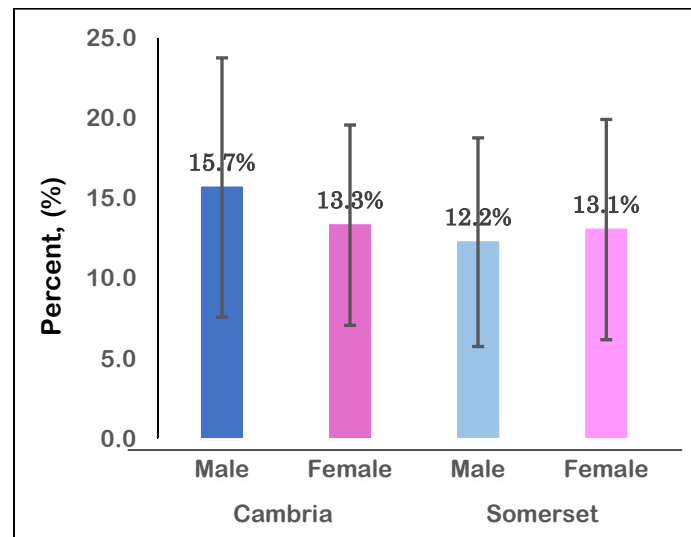


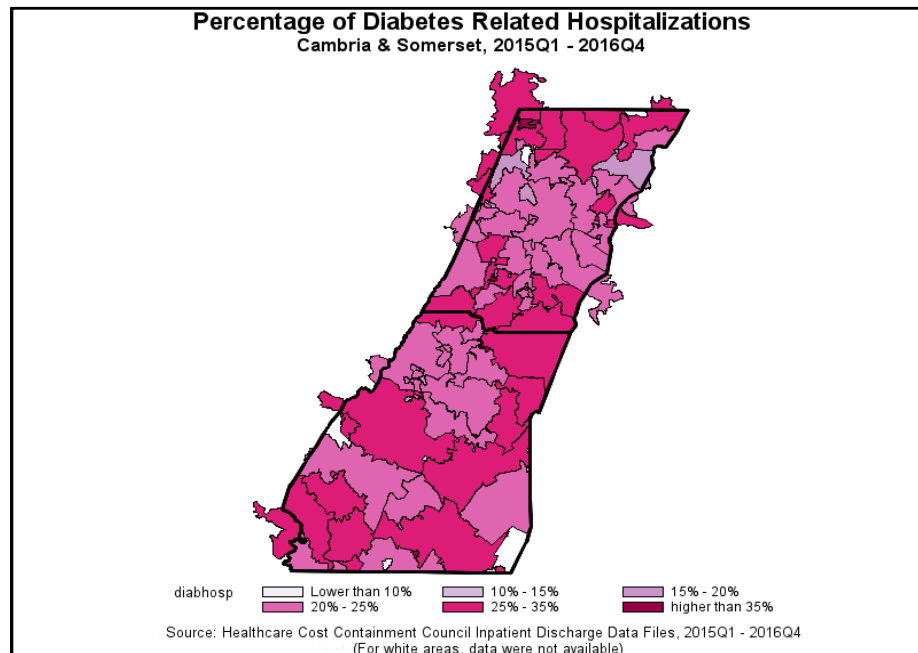
Figure 7 Diabetes Prevalence for Cambria and Somerset BY Age

Diabetes Hospitalizations

Analysis was done based on 2015-2016 PHC4 discharge inpatient data for Pennsylvania.

- Cambria and Somerset had the 12th (22%) and 5th (22.6%) highest percent of diabetes-related hospitalizations (either as a primary or secondary reason for admission) out of 67 counties in PA.
- In terms of expenditures diabetic patients had on average higher total and out-of-pocket (not covered by health insurance) costs relative to those not suffering from diabetes, independently of their age, gender, race, or the type of insurance they have.
- Most diabetic patients who were hospitalized both in Cambria and Somerset had a Type II diabetes (92%). The remaining 8% suffered from other forms of diabetes such as prediabetes, gestational diabetes, or Type I.
- Approximately 85% of all diabetic patients were diagnosed with more than 5 comorbidities.
- For cases where diabetes was the principal reason for admission, the secondary most frequent diagnoses were hypertension, hyperlipidemia, or acute kidney failure. Coming next, a large part of these patients were female who had recently given labor and were diagnosed with gestational diabetes.
- In cases where diabetes was the secondary reason for diagnosis, Sepsis, Myocardial Infraction, Acute Kidney Failure, and Pneumonia were the most frequent principal reasons for hospitalization. This finding applies to both Cambria and Somerset.
- Analyzing claims data from 2015Q1 to 2016Q4, the percent of diabetes hospitalizations percentages in Cambria and Somerset is presented below:

Figure 8. Diabetes Related Hospitalizations. PHC4, 2015Q1-2016Q6.



Mean BMI and Obesity Prevalence Estimates

As with Diabetes, for the purpose of this analysis, we rely again on BRFSS survey data, reweighting our sample using the method described in the “Diabetes” section above, and we produce 5-year estimates relying on 2013-2017, aggregated data. The Dataset consisted of both a continuous and a 4-level categorical BMI variable. Results are presented below:

BMI (Category)	Cambria (95% CL)	CV	Somerset (95% CL)	CV
Underweight	1.6% (0.46%, 2.71%)	0.36	1.2% (0, 2.9%)	0.72
Healthy	34.5% (26.4%, 42.6%)	0.12	27.1% (18.5%, 35.7%)	0.16
Overweight	36.6% (28.9%, 44.3%)	0.11	27.5% (20.6%, 34.5%)	0.13
Obese	27.3% (19.6%, 35%)	0.14	44.2% (35.8%, 52.5%)	0.10

Table 3 Obesity Prevalence, Source

Implementing a domain analysis, with BMI as the dependent variable, we estimate mean BMI values, classified by county, gender, and race (white, non-white). The term domain analysis refers to the computation of statistics for subpopulations, in addition to the computation of statistics for the entire population. Results are shown in Tables 3 and 4.

Cambria	Gender	Race	Mean	95% CL
	Male	White	27.7	(26.6, 27.8)
		Non-White	25.1	(21.9, 28.3)
	Female	White	26.6	(25.5, 27.8)
		Non-White	33.5	(27.4, 39.5)
Somerset	Gender	Race	Mean	95% CL
	Male	White	30.7	(28.9, 32.5)
		Non-White	NA	NA
	Female	White	28.8	(27.4, 30.0)
		Non-White	27.0	(18.3, 35.8)

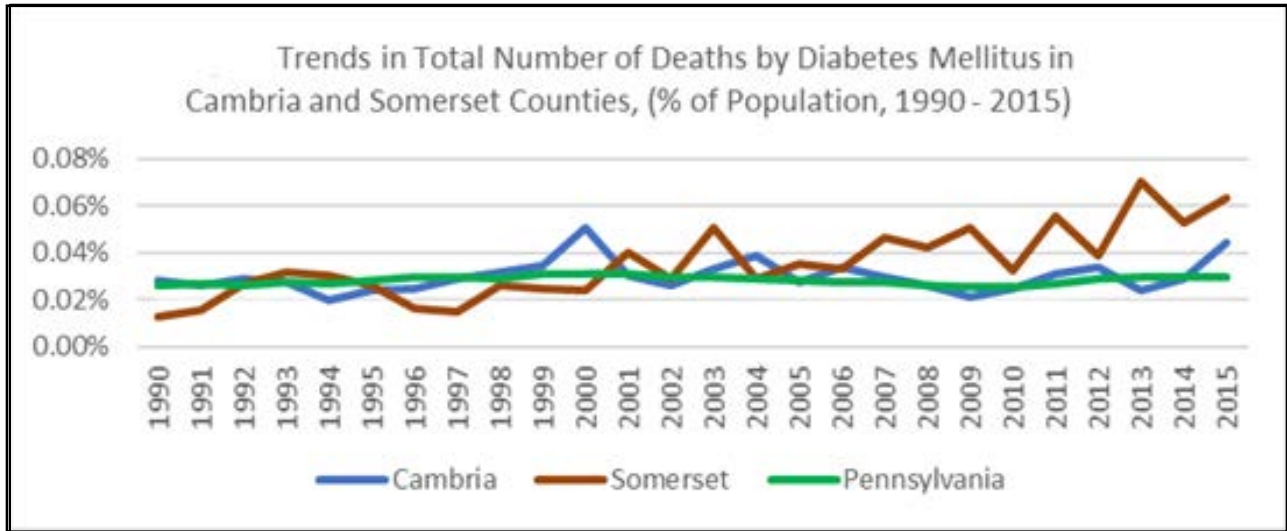
Table 4 Mean BMI classified by Gender and Race

Lastly, we report mean BMI values, classified by whether someone is diabetic or not.

Cambria	Diabetic	Mean	95% CL
	Yes (=1)	29	(27.0, 31.1)
	No (=0)	26.9	(26.0, 27.8)
	(<i>Gestational</i>)	NA	NA
Somerset	Gender	Mean	95% CL
	Yes (=1)	33.1	(30.9, 35.4)
	No (=0)	29.3	(27.9, 30.7)
	(<i>Gestational</i>)	25.1	(21.1, 29.1)

Table 5 Mean BMI by Diabetes Status

Figure 9. Deaths caused by Diabetes Mellitus



Physical Inactivity (CDC 2013)

- 25 -30% of adults (Cambria: 24.4% and Somerset: 28.2%) say they do not exercise in their free time

Mental Health

- 12% of adults reported 14 or more days of poor mental health per month (CDC HRQOL)
- 4-8% of hospitalizations in the region are due to mental illness (PHC4 2018)
- Suicide accounts for 1% of all deaths
 - Suicide rates doubled from 1990 to 2015 in Cambria County, and increased by 24% in Somerset County
 - Veterans have 2 times higher risk of suicide than average adults (VA 2018). In Cambria and Somerset Counties 8-9% of adults are veterans (US Census 2016).

Smoking Cessation

- More than 20% of adults in Cambria and Somerset Counties smoke. According to healthdata.org
- Smoking is a known risk factor for lung cancer, which caused 4% of all deaths and 20% of cancer-related deaths in 2016 (PA DOH; 2016) in Cambria and Somerset Counties.

Tobacco Use	Cambria	Somerset
Females, Age-adjusted, (%)	23.0%	26.7%
Males, Age-adjusted, (%)	23.4%	24.7%

Table 6 Tobacco Use, Source: Healthdata.org, <https://bit.ly/2UCBINw>

Major Causes of Death

Table 3. Age-adjusted Rates (per 100,000) of Selected Causes of Death, 2012-2016.

Causes of Death in Cambria County	Proportion of Death	Causes of Death in Somerset County	Proportion of Deaths
Diseases of Heart	841.8	Diseases of Heart	801.8
Malignant Neoplasms	192.2	Malignant Neoplasms	202.3
Non-transport Accidents	166.5	Accidents	63.1
Chronic Lower Respiratory Disease	40.4	Chronic Lower Respiratory Disease	38.9
Cerebrovascular Disease	35.9	Cerebrovascular Diseases	35.7
Alzheimer's Disease	22.1	Diabetes Mellitus	34.4
Nephritis, Nephrotic Syndrome & Nephrosis	23.8	Alzheimer's Disease	30.5
Diabetes Mellitus	24.2	Nephritis, Nephrotic Syndrome & Nephrosis	21.3
Influenza & Pneumonia	15.8	Influenza & Pneumonia	16.1
Septicemia	15.9	Septicemia	16.4

Table 7 Age-Adjusted Rates (per 100,000) of Selected Causes of Death, 2012-2016. Source: PA Department of Health, 2016; <https://bit.ly/2TC5BAk>

Diseases of despair (PDOH 2016)

There has been growing national concern that “diseases of despair” are leading to premature death in rural Americans (Stein et al. 2017). These diseases include alcoholic cirrhosis and liver diseases, suicides, and drug overdoses. Pennsylvania mortality statistics report the following in Cambria and Somerset Counties:

- Cirrhosis and alcoholic liver disease: 10 – 15 per 100,000 people, <1% of deaths
- Suicide: 18 – 20 per 100,000 people, 1% of deaths
- Drug overdoses and poisonings, estimated 2% of deaths

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