

2017

A Secondary Analysis in Support of the Community Health Needs Assessment for Oasis Free Clinics

Jillian Wheeler

University of Southern Maine, Muskie School of Public Service

Follow this and additional works at: https://digitalcommons.usm.maine.edu/muskie_capstones



Part of the [Community Health and Preventive Medicine Commons](#), [Health Services Administration Commons](#), [Health Services Research Commons](#), and the [Public Health Education and Promotion Commons](#)

Recommended Citation

Wheeler, Jillian, "A Secondary Analysis in Support of the Community Health Needs Assessment for Oasis Free Clinics" (2017). *Muskie School Capstones and Dissertations*. 131.
https://digitalcommons.usm.maine.edu/muskie_capstones/131

This Capstone is brought to you for free and open access by the Student Scholarship at USM Digital Commons. It has been accepted for inclusion in Muskie School Capstones and Dissertations by an authorized administrator of USM Digital Commons. For more information, please contact jessica.c.hovey@maine.edu.

University of Southern Maine
Muskie School of Public Service

**A Secondary Analysis in Support of the Community Health Needs Assessment
for Oasis Free Clinics**

Capstone Report by: Jillian Wheeler, MPH Candidate

Capstone Advisor: Elise Bolda, PhD

Second Reader: Jaclyn Jacobson, MPH, MBA

May 16, 2017

Table of Contents

Introduction	3
Methods for Data Collection	4
Structure of Analysis	8
Challenges & Limitations	9
Secondary Analysis for Oasis Free Clinics CHNA	10
• Executive Summary	11
• Demographics	13
• Socioeconomic Indicators	14
• Access	15
• General Health & Mortality	18
• Health Care Quality	19
• Oral Health	20
• Respiratory	22
• Cancer	22
• Cardiovascular Disease	24
• Diabetes	26
• Environmental Health	26
• Immunizations	27
• Infectious Disease	27
• Sexually Transmitted Disease	28
• Intentional Injury	28
• Mental Health	29
• Physical Activity, Nutrition & Weight	30
• Pregnancy & Birth	31
• Substance & Alcohol Use	32
• Tobacco Use	34
Secondary data including source information	35
Citations	49

Introduction

Oasis Free Clinics offer free medical and dental services to uninsured, low income adults living in Sagadahoc County, Maine (with the exception of the town of Richmond) and the towns of Brunswick, Freeport, and Harpswell in Cumberland County and Durham in Androscoggin County. Oasis has filled a critical need in providing affordable health care to the working poor with the absence of Medicaid expansion in the state of Maine. The clinic offers wellness checks, women's wellness, prenatal care, chronic disease management, limited mental health counseling, a prescription assistance program and dental care.

Oasis Free Clinics will conduct a Community Health Needs Assessment (CHNA) in 2017 to review how the organization is meeting the medical, dental and prescription assistance needs of the population it serves. The secondary data analysis will augment the organization's primary data collection, which will include both quantitative and qualitative data. Oasis will use this information to identify any unmet needs of its population and review whether changes in policies, practices or methods can lead to better health outcomes.

The Patient Protection and Affordable Care Act (ACA) requires nonprofit, tax-exempt hospitals to complete a Community Health Needs Assessment to identify prevalent health needs facing their communities and develop a written plan, or implementation strategy, which describes how the organizations will address those needs. This process encourages coordination between hospitals and the resources and stakeholders within their communities. Community Health Needs Assessments are also valuable tools for other types of organizations that promote public health, including free health clinics and state, tribal, local and territorial health departments.

The national Centers for Disease Control and Prevention (CDC) lists multiple commonly used frameworks for conducting CHNAs on the organization's website. The frameworks differ in their focus and methods based on types of data, level and diversity of community engagement, length of time for completion, intensity of focus on specific data or issues and primary stakeholders initiating the process (CDC, 2015).

Oasis board members, Jaclyn Jacobson and Seth Ramus, and Executive Director, Anita Ruff, have led the organization's planning process to determine what information the Needs Assessment will include, the people who will perform specific tasks and the time frame for completion. Jaclyn, Seth and Anita sought a graduate student from the Muskie School's public health program to perform an analysis of secondary data for the CHNA. As that student, I collected secondary data from a number of state and national reporting agencies and organizations that highlight the current service utilization and demographic, socioeconomic, and health status of Oasis' population. These quantitative data will help inform Oasis staff and stakeholders as they identify and address any unmet clinical or social needs facing their patients.

Methods for Data Collection

Initial research was completed to determine whether an evidence-based consensus process existed for selecting health status metrics for a CHNA. The CDC states that "A common set of health status metrics can facilitate comparisons across populations, promote collaboration between organizations conducting assessments, [and] assist in establishing a shared understanding of factors that influence health..." (2013). While there is currently no established consensus in the public health community on which metrics are best for CHNAs, the CDC does recommend 42 health outcomes or health determinants and cites resources where these data can be found (2013). These recommended health metrics, which include factors such as age,

ethnicity, obesity, health insurance coverage and tobacco use, provide a best practice methodology to assist in the collection of health data available for Oasis' population.

Oasis leadership requested that the secondary analysis consider the overall health of their population with a specific focus on oral health and prescription drug use. The following section describes methods used in the secondary analysis for the collection of health status, demographic, socioeconomic, oral health and prescription drug data.

Health Status Data

Other recent CHNAs conducted by organizations with service areas similar to Oasis, including Mid Coast Hospital, were reviewed to see what types of data and sources were used. Mid Coast and Oasis reside on the same campus in Brunswick and both mainly service residents from Sagadahoc and Cumberland counties. The quantitative data in Mid Coast Hospital's Community Health Needs Assessment Report for Fiscal Year 2017-2019 are from the Maine Shared Health Needs Assessment and Planning Process (SHNAPP) for Sagadahoc County.

SHNAPP is a collaboration between Central Maine Healthcare, Eastern Maine Healthcare Systems, MaineGeneral Health, MaineHealth and the Maine Department of Health and Human Services (DHHS) to complete shared community health needs assessment data for every county and public health district in Maine. These quantitative data were collected from 25 sources, including the Behavioral Risk Factor Surveillance System, the Maine Integrated Youth Health Survey and claims data from the Maine Health Data Organization. A majority of the health status data collected for the Oasis secondary analysis were from the SHNAPP. The SHNAPP is the most comprehensive and recent set of health data at the county level available

for the state of Maine. Other health status data were from the County Health Rankings, Maine DHHS, the City of Portland, Muskie School of Public Service and IMS Health Incorporated.

Demographic & Socioeconomic Data

American FactFinder, a tool from the U.S. Census, is recommended by the CDC as the best source for demographic and socioeconomic data on the national, state and city or town level (2013). American FactFinder includes data from both the 2010 U.S. Census as well as the 2015 American Community Survey 5-Year Estimates. These data were also helpful in describing access to care, such as percent uninsured by age, sex and employment status.

When addressing access to care, it is relevant to provide data on employer sponsored, Marketplace and MaineCare coverage because the state and federal policies surrounding these programs greatly influence the number and composition of the uninsured population. The Centers for Medicare and Medicaid Services (CMS) administers the Health Insurance Marketplace and data on Marketplace enrollment and subsidy by county were retrieved directly from CMS. Data were also collected from the Center for Financing, Access, and Cost Trends which show the cost of average employer-based individual and family insurance premiums for Maine (2014). The SHNAPP provides MaineCare enrollment data by county for 2015, which are the most recent figures available.

Oral Health Data

Oasis Free Clinics has identified oral health as a critical unmet need of the uninsured population and has focused efforts on collecting data on barriers to care. Oasis provides free dental care to its population, which sets Oasis' services above and beyond what most free clinics

typically offer. The dental clinic is funded through numerous individual donations and grants and is operated by volunteers from the Merrymeeting Bay Dental Society.

Oasis is considering expanding its dental services to adults with MaineCare, who are covered for dental benefits only when services are needed to alleviate pain, infection or prevent imminent tooth loss (DHHS, 2011). This definition of benefits for the adult MaineCare population in trying to obtain preventive oral health services. Oasis provided a report prepared by the Muskie School of Public Service which includes data on the number of Emergency Department visits attributed to dental disease for the uninsured and MaineCare population. The oral health section was augmented with data from Maine DHHS, County Health Rankings and SHNAPP.

Prescription Drug Data

Focus on collecting information on prescription drug utilization and access comes from Oasis' desire to improve the services provided by the Oasis Community Prescription Assistance Program. The program connects patients with programs that offer free or discounted prescription drugs. This service is available for patients from other practices as well, as long as the patients reside within the Oasis service area.

Data on prescription drugs specifically for Sagadahoc County, and the other towns within Oasis' service area, were difficult to obtain. The City of Portland collected data on the cities and town within Cumberland County showing the average controlled substance prescriptions per person. Therefore, these data could be obtained for the towns of Brunswick, Freeport and Harpswell. Data from IMS Health Incorporated contained in a report by Maine Health

Management Coalition provided the per capita prescription drugs filled at pharmacies by age for the state and the nation.

Structure of Analysis

A majority of the data collected for the Oasis CHNA secondary analysis came from the Maine Shared Health Needs Assessment and Planning Process. Based on this, the structure of the Oasis analysis is set up in a similar way to the SHNAPP framework. This report for Oasis includes 23 health domains, and inserts additional data collected from other sources within those already existing domains. Not all 23 domains within the SHNAPP were included in Oasis' secondary analysis, and of the domains chosen, not all data within these domains. The domains and data included are those specific to the Oasis service population. For example, data that focused singularly on children were excluded because Oasis only serves people ages 18-64. The domains of Unintentional Injury and Occupational Health were not included because these categories speak to accidental mishaps which usually require more intensive levels of care than Oasis provides, such as Emergency Department services. The SHNAPP domains selected to be the framework for the Oasis secondary analysis include:

- Demographics
- Socioeconomic Indicators
- Access
- General Health Status
- Mortality
- Health Care Quality
- Oral Health
- Respiratory
- Cancer
- Cardiovascular Disease
- Diabetes
- Environmental Health
- Immunization
- Infectious Disease
- Sexually Transmitted Disease
- Intentional Injury
- Mental Health
- Physical Activity, Nutrition & Weight
- Pregnancy & Birth
- Substance & Alcohol Use
- Tobacco Use

Challenges & Limitations

The greatest challenge of this secondary analysis was attempting to collect data for Oasis' unique service area. The Oasis service area includes the majority of Sagadahoc County and small parts of both Cumberland and Androscoggin Counties. A service area that straddles three counties is difficult because public health data in Maine are generally gathered on the county and public health district levels. Because Sagadahoc County is almost entirely included in the service area, it is a natural choice to serve as proxy for the entire service area. Mid Coast used Sagadahoc County as the proxy service area in the hospital's recent CHNA.

An initial goal of this project was to gather as much data as possible on the towns outside of Sagadahoc County, including Brunswick, Freeport, Harpswell and Durham. Unfortunately, very limited health status data could be identified on the town level, and Sagadahoc largely had to represent the Oasis service area. However, some data were collected that speak to health status, including percentage of Emergency Department visits with potentially preventable diagnoses for the town of Brunswick and average controlled substance prescriptions per person in Brunswick, Freeport and Harpswell. Most town level data found for the towns in Cumberland and Androscoggin Counties were demographic, socioeconomic and access related.

Another challenge involved the difficulty in finding CHNAs conducted by free clinics in Maine or the United States in general. Initial hopes were that free clinics within Maine, specifically Richmond Area Health Center, might have completed CHNAs which could provide insight into their populations and data collection techniques. However, no CHNAs from free health clinics in Maine were identified.

A limitation of this secondary analysis was the inability to obtain Emergency Department (ED) data from Mid Coast Hospital. The close proximity of Mid Coast Hospital and the Oasis

Free Clinic provides a unique opportunity for the two organizations to collaborate in an effort to align visions and resources, in particular to ensure that patients are accessing the appropriate level of care for their health care needs. To this aim, Oasis had hoped to obtain data for their CHNA from Mid Coast Hospital on medical and dental related ED visits for uninsured, low income patients. A review of the diagnoses would provide an estimate of how many ED visits might be more appropriately managed by the Oasis Free Clinic. Unfortunately, Oasis was unable to obtain these data. In order to gain an understanding of avoidable Emergency Department use, data were collected from the Maine SHNAPP on ambulatory care-sensitive condition emergency department rate per 100,000 population for Sagadahoc County, and from the Muskie School of Public Service report on ED visits with potentially preventable diagnoses or dental disease.

Secondary Analysis for Oasis Free Clinics CHNA

The following sections include the secondary analysis to be delivered to Oasis Free Clinics for inclusion in their 2017 Community Health Needs Assessment. Included are three sections: an executive summary, the secondary analyses presented by domain, and the secondary data including source information.

Oasis Free Clinics
Secondary Data Analysis
2017 Community Health Needs Assessment

Executive Summary

The following sections are the secondary data analysis conducted for the Oasis Free Clinics 2017 Community Health Needs Assessment. This analysis was completed by a graduate student from the Muskie School of Public Service to meet the requirements of a Capstone project. The purpose of this analysis was to collect secondary data that describe the current service utilization and demographic, socioeconomic and health status of Oasis' patient population. These quantitative data will help inform Oasis staff and stakeholders as they identify and address any unmet clinical or social needs facing their population.

A majority of the data collected for the Oasis secondary analysis came from the Maine Shared Health Needs Assessment and Planning Process (SHNAPP). The SHNAPP is a collaboration among the largest health systems in Maine to collect shared community health needs assessment data for every county and public health district in Maine. The SHNAPP includes the most comprehensive and recent set of health data at the county level available for the state. These quantitative data were collected from 25 sources, including the Behavioral Risk Factor Surveillance System, the Maine Integrated Youth Health Survey and claims data from the Maine Health Data Organization.

The structure of the Oasis analysis is set up in a similar way to the SHNAPP framework. This report for Oasis includes 21 health domains used in the SHNAPP, and additional data are inserted within those already existing domains that were collected from other sources. Not all domains within the SHNAPP were included in Oasis' secondary analysis, and of the domains chosen, not all data within these domains were included. The domains and data chosen from the SHNAPP are those specific to the Oasis service population. The SHNAPP domains selected to be the framework for the Oasis secondary analysis include:

- Demographics
- Socioeconomic Indicators
- Access
- General Health Status
- Mortality
- Health Care Quality
- Oral Health
- Respiratory
- Cancer
- Cardiovascular Disease
- Diabetes
- Environmental Health
- Immunization
- Infectious Disease
- Sexually Transmitted Disease
- Intentional Injury
- Mental Health
- Physical Activity, Nutrition & Weight
- Pregnancy & Birth
- Substance & Alcohol Use
- Tobacco Use

Using the data collected for this analysis to compare Sagadahoc County to Maine, Sagadahoc residents are generally faring better overall than the average Maine resident. Particular health outcomes and determinants stand out as either significantly better or significantly worse than the state at large.

Sagadahoc County performs significantly better than Maine in the following health measures:

- Lower cancer incidence and mortality
- Lower Ambulatory Care-Sensitive Emergency Department visit rate
- Lower substance abuse hospital admissions
- Lower drug-affected baby referrals as a percentage of all live births
- Lower violent crime rate

Sagadahoc County performs noticeably worse than Maine in the following measures:

- Higher hypertension prevalence and hypertension hospitalization rate
- Higher diabetes hospitalization rate
- Higher percentage of overweight adults
- Higher stroke mortality rate

The greatest challenge in performing this secondary analysis was attempting to collect data for Oasis' unique service area. The Oasis service area includes the majority of Sagadahoc County and small parts of both Cumberland and Androscoggin Counties. A service area that straddles three counties is difficult because public health data in Maine are generally gathered on the county and public health district levels. Because Sagadahoc County is almost entirely included in the service area, it is a natural choice to serve as proxy for the entire service area.

An initial goal of this project was to gather as much data as possible on the towns outside of Sagadahoc County, including Brunswick, Freeport, Harpswell and Durham. Unfortunately, very limited health status data could be identified on the town level, and Sagadahoc largely had to represent the Oasis service area. Some data were collected on the town level that speak to health status, including data from the City of Portland, Muskie School of Public Service and American FactFinder from the U.S. census. Most town level data found were demographic, socioeconomic and access related.

Another challenge in performing this analysis was the inability to identify any CHNAs completed by other free clinics in Maine. Initial hopes were that CHNAs completed by other free clinics within Maine could provide insight into data collection strategies for unique service areas. In future secondary analyses performed by Oasis, it would be beneficial to review whether any other free clinics, islands or tribal health districts in Maine have completed CHNAs. If so, their methods for secondary data collection could serve as a model and provide insight for Oasis.

The following section includes the secondary analysis to support the 2017 Oasis Free Clinics Community Health Needs Assessment. The data and accompanying analysis are displayed by domain. The section entitled "Secondary Data including Source Information" shows the secondary data with accompanying source, excluding analysis.

Oasis Free Clinics
Secondary Data Analysis
2017 Community Health Needs Assessment

Demographics

Oasis Free Clinics offer free medical and dental care to uninsured, low income adults living in the following areas in Maine:

- Sagadahoc County (except Richmond)
- Brunswick
- Freeport
- Harpswell & the Islands
- Durham

These geographical areas will be referred to as the “Oasis Service Area” (OSA) throughout this document.

The total population of the Oasis service area is approximately 68,627 based on 2010 Census data*. A large portion of this population live in Sagadahoc County and the town of Brunswick, which have populations of 35,293 and 20,278 respectively (See Table 1: Demographics).

A vast majority of the residents in the service area are white and percentages parallel the state average. Brunswick is the most ethnically diverse part of the Oasis service area with a population mix of 93% white, 1.7% black or African American, 0.3% American Indian or Alaskan native, 2.1% Asian and 2.9% Hispanic.

Oasis serves adults ages 18-64. This age group constitutes 61.3% of the population in Sagadahoc County, which is lower than the state and national average. The median ages in the OSA towns range from 41.4 years in Brunswick to 52.9 years in Harpswell.

* Richmond’s population of 3,411 has been subtracted from Sagadahoc County’s total population

Table 1:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Demographics								
Total Population	2010	35,293	20,278	7,879	4,740	3,848	1.32 mil	309 mil
Population - % ages 18-64	2013	61.3%	NA	NA	NA	NA	62.6%	62.6%
Median Age	2010	44.1	41.4	45	52.9	42.7	42.7	37.2
Population - % White	2011-2015	95.9%	93%	95.2%	97.7%	94.9%	95.0%	73.6%
Population - % Black or African American	2011-2015	0.7%	1.7%	0.6%	0.1%	0.1%	1.1%	12.6%
Population - % American Indian or Alaskan Native	2011-2015	0.3%	0.3%	0.4%	0.3%	0.1%	0.6%	0.8%
Population - % Asian	2011-2015	0.7%	2.1%	2.3%	0.6%	0.5%	1.1%	5.1%
Population - % Hispanic	2011-2015	1.5%	2.9%	1.1%	0.8%	0.0%	1.5%	17.1%
Population - % with a disability	2013	15.6%	NA	NA	NA	NA	15.9%	12.1%
Population density (per square mile)	2010	139.1	433	227	196	100.5	43.1	87.4

Socioeconomic Indicators

Oasis serves low income individuals with income at or below 175% of the federal poverty level (FPL). Based on 2017 FPL guidelines, this equates to an annual income of \$21,105 for an individual and \$43,050 for a family of four (median household size). According to Kaiser Family Foundation, “there is growing recognition that a broad range of social, economic and environmental factors shape individuals’ opportunities and barriers to engage in health behaviors (2015). These social determinants of health include factors such as income, education, employment, social support, food security, access to transportation and housing stability.

Studies have shown that the likelihood of premature death increases as income goes down (Kaiser, 2015). The towns and county within the OSA vary widely in the percentage of people ages 18-64 with income below the federal poverty level, with a high of 13.4% in Brunswick to a low of 6.5% in Durham. All areas are below the state and national percentage of population living in poverty (14% and 14.5%, respectively). Freeport (\$73,072), Harpswell (\$66,290) and Durham (\$71,908)

have significantly higher median household incomes than Brunswick (\$53,737) or Sagadahoc County (\$53,298).

Sagadahoc County and the accompanying towns in the service area have higher percentages of people with high school education or above and lower rates of unemployment than Maine and the United States. Please see Table 2: Socioeconomic Factors.

Table 2:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Socioeconomic Indicators								
Adults and children living in poverty	2009-2013	11.1%	NA	NA	NA	NA	13.6%	15.4%
Percentage of people with income below poverty level	2011-2015	12.1%	11.4%	5.9%	14%	8%	13.9%	15.5%
Percentage of people with income below poverty level (ages 18-64)	2011-2015	11.8%	13.4%	7.8%	7.8%	6.5%	14%	14.5%
Percent high school graduate or higher	2011-2015	93.6%	93.7%	94.6%	96.9%	96.2%	91.6%	86.7%
Median household income	2011-2015	\$53,298	\$53,737	\$73,072	\$66,290	\$71,908	\$49,331	\$53,889
Percentage of people living in rural areas	2013	100%	NA	NA	NA	NA	66.4%	NA
Single-parent families	2009-2013	27.5%	NA	NA	NA	NA	34%	33.2%
Unemployment rate	2011-2015	3.7%	3.9%	1.7%	1.9%	2%	4.3%	5.2%

Access

Health insurance coverage is a significant factor in access to care. Lack of health insurance creates barriers to care in numerous ways, including the burden of cost for the individual and unwillingness of some providers to render services without a secure funding source. Studies show that uninsured people are less likely to receive health care, more likely to die early and more likely to have poor health status (Healthy People, 2014). The percentage of uninsured in the OSA ranges from 6.5% in Durham to 8.6% in Brunswick.

It is important to have a full picture of the health insurance coverage available through commercial and governmental payers in order to understand the uninsured population and why they may have that status. Oasis serves many people who could be considered the working poor – individuals who are employed and either are not offered health insurance through their employer or cannot afford to elect that coverage. The average yearly employer-based insurance premium in Maine in 2014 totaled \$5,903 for individuals and \$16,514 for families.

Lack of Medicaid expansion in Maine has significantly contributed to the uninsured rate. In order to qualify for MaineCare, individuals must either be pregnant, have dependent children under 18 years of age in the household, be ages 19-20 or 65 or older, or have a disability. This has left many low income, childless adults without health coverage. MaineCare enrollment in Sagadahoc County is 21%, which is below the state average of 27%.

The Affordable Care Act intended for every state to expand Medicaid coverage to any person with an income at or below 138% FPL. In 2012 the Supreme Court ruled that states could decide on an individual basis whether or not to expand Medicaid. Because the Health Insurance Marketplace provides a tax credit to assist with the cost of health insurance to any individual between 100-400% FPL, the Supreme Court's ruling had the unforeseen consequence of denying a tax credit to any individual with an income below 100% FPL in a non-expansion state. This left many Mainers who make less than 100% FPL, who are not categorically eligible for MaineCare, without access to affordable health insurance. In 2015, 5.4% of the population in Sagadahoc County were enrolled in a Marketplace plan and 87% of those people were receiving subsidies.

For people of all coverage statuses, 10.2% in Sagadahoc County reported that they were unable to obtain or delayed obtaining necessary medical care due to cost. This is lower than the 11% state average response to such queries.

Another aspect of access is availability of providers. Primary care is vital in ensuring that people have a usual and continuing source of care. Sagadahoc County reports 90.6% of adults with a usual primary care provider. Please see Table 3: Access.

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 3:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Access								
Adults with usual primary care provider	2011-2013	90.6%	NA				87.7%	76.6%
Individuals who are unable to obtain or delay obtaining necessary medical care due to cost	2011-2013	10.2%					11%	15.3%
MaineCare enrollment (percent)	2015	21%					27%	23%
Percent uninsured	2011-2015	8.3%	8.6%	8.3%	8.1%	6.5%	10%	13%
Percent uninsured by employment status (employed)	2011-2015	9.8%	12.8%	8.4%	12.5%	8.7%	13.1%	15.7%
Percent uninsured by employment status (unemployed)	2011-2015	35.8%	38.7%	42.1%	48.4%	24.2%	36.4%	40.6%
Percent uninsured by employment status (not in labor force)	2011-2015	13.3%	8.2%	17.7%	18.8%	2.4%	12.2%	19.5%
Percent uninsured by sex (female)	2009-2013	6.8%	NA				8.5%	13.4%
Percent uninsured by sex (male)	2009-2013	9.4%					12.3%	16.4%
Percent uninsured by age (18-64)	2009-2013	11.3%					14.7%	20.6%
Percent enrolled in Marketplace	2015	5.4%					5.6%	NA

Table 3 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Percent of Marketplace enrollees receiving subsidies	2015	87%	NA				89%	NA
Average Employer-based family insurance premiums	2014	NA					\$16,514	\$16,655
Average Employer-based individual insurance premiums	2014	NA					\$5,903	\$5,832

General Health & Mortality

Indicators such as life expectancy, overall mortality and days lost due to poor physical or mental health give a general overview of the health of a population. Life expectancy in Sagadahoc County is 81.8 years for females and 78.3 years for males. The overall mortality rate per 100,000 people (713.1) in Sagadahoc is significantly lower than Maine (745.8) or the U.S. (731.9).

Sagadahoc County has a higher percentage of adults with three or more chronic conditions than the state average. Approximately 14% of adults rate their health fair to poor, lower than state (15.6%) and national (16.7%) averages. Please see Table 4: General Health Status.

Table 4:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
General Health Status								
Adults who rate their health fair to poor	2011-2013	13.6%	NA				15.6%	16.7%
Adults with 14 + days lost due to poor mental health	2011-2013	11.3%					12.4%	NA
Adults with 14 + days lost due to poor physical health	2011-2013	11.1%					13.1%	NA
Adults with three or more chronic conditions	2011, 2013	29.4%					27.6%	NA
Per capita prescription drugs filled at pharmacies by age (19-64)	2013	NA					16.6	12.6
Average controlled substance prescriptions per person	2009	NA	1.64	1.4	1.41	NA	NA	NA

Health Care Quality

The Institute for Medicine (IOM) created a framework which includes six aims for quality healthcare: safe, effective, patient-centered, timely, efficient and equitable (2001). There are many different types of quality measures, including health outcomes and prevention quality indicators.

Ambulatory care-sensitive conditions (ACS) hospital admissions or Emergency Department (ED) visit rates are prevention quality indicators that attempt to measure if patients are receiving appropriate care in the outpatient setting prior to seeking or requiring a higher level of care. The ACS Emergency Department rate was 3,374.7 per 100,000 population, which was significantly lower than the state rate of 4,258.8 in 2014. The Muskie School also reviewed conditions that are likely to be treatable in an outpatient setting and found that 18.5% of ED visits in Brunswick in 2006 had potentially preventable diagnoses. Please see Table 5: Health Care Quality.

Table 5:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Health Care Quality								
Ambulatory care-sensitive condition hospital admission rate per 100,000 population	2011	1,530	NA	NA			1,499.3	1457.5
Ambulatory care-sensitive condition emergency department rate per 100,000 population	2011	3,374.7	NA				4,258.8	NA
Percentage of Emergency Department visits with Potentially Preventable Diagnoses	2006	NA	18.5%				NA	NA

Oral Health

Oral health is a vital, and often overlooked, aspect of good overall health. The dental industry evolved independently from the rest of the health care industry and many medical insurance plans do not consider routine and preventive dental services as covered benefits. Individuals with limited ability to pay, particularly the uninsured and adults with MaineCare, face some of the greatest access and affordability issues with oral health.

Adults 21 or older on MaineCare are covered for dental benefits only when services are needed to alleviate pain, infection or prevent imminent tooth loss (DHHS, 2011). This creates a barrier for this population in trying to obtain preventive services, such as cleanings and screenings, and has led to increased utilization of the Emergency Department (ED) for dental related complaints.

The top diagnostic reason for an ED visit among both MaineCare and uninsured people ages 15-44 was dental disease, according to an analysis by the Muskie School of Public Service using ED claims data from 2006. The study found that for MaineCare members ages 25-44, 43.6% of dental disease related ED visits in Maine were attributable to frequent users (individuals who have four or more visits to the ED over the course of one year). For the uninsured ages 25-44, 28.7% of dental disease related ED visits were attributed to frequent users. Please see Table 6: Oral Health.

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 6:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Oral Health								
Adults with visits to a dentist in the past 12 months	2012	64.8%	NA	NA	NA	NA	65.3%	67.2%
Ratio of population to dentists	2015	1600:1					1,690:1	NA
Percentage of ED visits with a related dental procedure (MaineCare members)	2009	NA					12%	NA
Percentage of dental disease related ED visits attributable to frequent users (MaineCare, ages 15-24)	2006	NA					44.8%	NA
Percentage of dental disease related ED visits attributable to frequent users (MaineCare, ages 25-44)	2006	NA					43.6%	NA
Percentage of dental disease related ED visits attributable to frequent users (Uninsured, ages 15-24)	2006	NA					33.4%	NA
Percentage of dental disease related ED visits attributable to frequent users (Uninsured, ages 25-44)	2006	NA					28.7%	NA

Respiratory

Asthma is a common chronic disease which impacts the airways in the lungs. Asthma-related medical expenses in the U.S. total \$56 billion dollars each year (CDC, 2011). Almost 13% of adults in Sagadahoc County have asthma, compared to the state and national percentages of 11.7% and 9% respectively. While Sagadahoc has a higher asthma prevalence rate than Maine, it has significantly fewer asthma related Emergency Department (ED) visits per 10,000 population. Sagadahoc has 50.5 ED visits per 100,000 population, while the state average is 67.3. Please see Table 7: Respiratory.

Table 7:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Respiratory								
Asthma emergency department visits per 10,000 population	2009-2011	50.5	NA				67.3	NA
COPD diagnosed	2011-2013	6.6%					7.6%	6.5%
Current asthma (Adults)	2011-2013	12.6%					11.7%	9%
Pneumonia emergency department rate per 100,000 population	2011	458.8					719.9	NA

Cancer

Cancer was the leading cause of death in Maine and Sagadahoc County in 2013 (SHNAPP, 2015). Sagadahoc County has a lower cancer mortality rate than the state. Maine had 185.5 cancer mortalities per 100,000 population compared to Sagadahoc's 166.8.

Sagadahoc has significantly lower female breast cancer, colorectal cancer and lung cancer incidences per 100,000 population than Maine or the U.S. Of particular notice is Sagadahoc County's lung cancer incidence rate of 55.3 per 100,000 population, compared to the state rate of 75.5.

Sagadahoc County saw higher cancer incidence rates for bladder cancer, melanoma and prostate cancer compared to the state and the nation. Prostate cancer incidence per 100,000 population was 141.8 compared to 133.8 for the state.

Public health interventions in Maine have focused on the importance of cancer screenings for prevention. Sagadahoc County has done well compared to the state on several cancer screening metrics, including percentage of females who received a Pap smear in the past 5 years, percentage

of females age 50 and above who received a mammogram in the past 2 years and colorectal screenings. Please see Table 8: Cancer.

Table 8:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Cancer								
Mortality - all cancers per 100,000 population	2007-2011	166.8	NA	NA	NA	NA	185.5	168.7
Incidence - all cancers per 100,000 population	2007-2011	453.8					500.1	453.4
Bladder cancer incidence per 100,000 population	2007-2011	28.8					28.3	20.2
Female breast cancer mortality per 100,000 population	2007-2011	19.1					20	21.5
Breast cancer late-stage incidence per 100,000 population	2007-2011	38.3					41.6	43.7
Female breast cancer incidence per 100,000 population	2007-2011	115.2					126.3	124.1
Mammograms females age 50+ in past two years	2012	84.9%					82.1%	77%
Colorectal cancer mortality per 100,000 population	2007-2011	13.1					16.1	15.1
Colorectal late-stage incidence per 100,000 population	2007-2011	18.5					22.7	22.9
Colorectal cancer incidence per 100,000 population	2007-2011	36.2					43.5	42
Colorectal screening	2012	73%					72.2%	NA

Table 8 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Lung cancer mortality per 100,000 population	2007-2011	52.6	NA				54.3	46
Lung cancer incidence per 100,000 population	2007-2011	55.3					75.5	58.6
Melanoma incidence per 100,000 population	2007-2011	24.1					22.2	21.3
Pap smears females ages 21-65 in past three years	2012	90.6%					88%	78%
Prostate cancer mortality per 100,000 population	2007-2011	23.8					22.1	20.8
Prostate cancer incidence per 100,000 population	2007-2011	141.8					133.8	140.8
Tobacco-related neoplasms, mortality per 100,000 population	2007-2011	30.6					37.4	34.3
Tobacco-related neoplasms, incidence per 100,000 population	2007-2011	82.8					91.9	81.7

Cardiovascular Disease

Heart disease is the leading cause of death in the United States for both men and women (CDC, 2015). The most significant risk factors for heart disease are smoking, high blood pressure and high LCL cholesterol and roughly half of all Americans have at least one of these three factors

(CDC, 2015). Lifestyle choices such as diet, physical inactivity and alcohol use can also increase risk of cardiovascular disease.

Sagadahoc has lower acute myocardial infarction mortality and coronary heart disease mortality per 100,000 population than both Maine and the United States. However, it has significantly higher hypertension prevalence and stroke mortality than the state or nation. Please see Table 9: Cardiovascular Disease

Table 9:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Cardiovascular Disease								
Acute myocardial infarction hospitalizations per 10,000 population	2010-2012	23.6	NA				23.5	NA
Acute myocardial infarction mortality per 100,000 population	2009-2013	25.1					32.2	32.4
Cholesterol checked every 5 years	2011, 2013	83.4%					81%	76.4%
Coronary heart disease mortality per 100,000 population	2009-2013	76.1					89.8	102
Heart failure hospitalizations per 10,000 population	2010-2012	17.5					21.9	NA
Hypertension prevalence	2011, 2013	42.3%					32.8%	31.4%
High cholesterol	2011, 2013	39.8%					40.3%	38.4%
Hypertension hospitalizations per 100,000 population	2011	35.8					28	NA
Stroke hospitalizations per 10,000 population	2010-2012	21.8					20.8	NA
Stroke mortality per 100,000 population	2009-2013	50.7					35	36.2

Diabetes

Diabetes is a widespread chronic condition which afflicts more than 29 million American adults and accounts for over 20% of U.S. health care spending (CDC, 2016). It is also the leading cause of kidney failure, lower-limb amputations and adult-onset blindness (CDC, 2016).

Sagadahoc has similar diabetes prevalence compared to Maine and the United States and lower diabetes mortality. However, Sagadahoc has noticeably higher diabetes hospitalization rates than Maine, particularly long-term complication hospitalizations. Please see Table 10: Diabetes.

Table 10:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Diabetes								
Diabetes prevalence (ever been told)	2011-2013	9.5%	NA				9.6%	9.7%
Diabetes ED visits (principal diagnosis) per 100,000 population	2011	233.4					235.9	NA
Diabetes hospitalizations (principal diagnosis) per 10,000 population	2010-2012	14.5					11.7	NA
Diabetes long-term complication hospitalizations	2011	90.8					59.1	NA
Diabetes mortality per 100,000 population	2009-2013	12.6					20.8	21.2

Environmental Health

According to Healthy People 2020, human interactions with their environment affect quality of life, years of healthy life lived and health disparities (2014). Environmental health encompasses both the outside and built environments in the spaces where people live, work, learn, gather and play.

A vital component of environmental health is access to safe drinking water. Over half of homes in Maine get their drinking water from private, residential wells (Maine CDC, 2017). Maine CDC

suggests that residents test their well water once a year for bacteria and nitrates and every 3-5 years for arsenic, fluoride, uranium, radon, lead, and manganese (2013).

Only 38.9% of homes in Sagadahoc County with private wells have been tested for arsenic, which is lower than the state percentage of 43.3%. Please see Table 11: Environmental Health.

Table 11:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Environmental Health								
Homes with private wells tested for arsenic	2009, 2012	38.9%	NA				43.3%	NA

Immunizations

The flu is a contagious illness caused by the influenza virus. Although anyone can get serious complications from the flu, the virus is most dangerous for people 65 years and older, people with certain medical conditions (such as diabetes, heart disease or asthma), pregnant women and young children (CDC, 2016). The most effective way to prevent the flu is having an annual immunization.

Forty-seven percent of adults in Sagadahoc County are immunized every year for influenza. This is higher than the state average of 41.5%. Please see Table 12: Immunization.

Table 12:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Immunization								
Adults immunized annually for influenza	2011-2013	47%	NA				41.5%	NA

Infectious Disease

According to the Maine CDC, there were 78 infectious diseases reportable in Maine in 2015. Of particular note in recent years is the increase in Lyme disease incidence, which climbed to Maine's second-most reported infectious disease in 2013 (Maine CDC, 2015). This has led to increased public health efforts to encourage prevention.

The Lyme disease incidence of 182.6 per 100,000 population in Sagadahoc County is significantly higher than the state average of 105.3. Please see Table 13: Infectious Disease.

Table 13:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Infectious Disease								
Lyme disease incidence per 100,000 population	2014	182.6	NA				105.3	10.5

Sexually Transmitted Disease

Sexually transmitted disease (STD) rates in Maine are significantly lower than U.S. rates overall, including lower rates of chlamydia, gonorrhea, syphilis, HIV and AIDS. Chlamydia was the most frequently reported STD in Maine every year from 2010 to 2015 (Maine CDC, 2015). Sagadahoc's chlamydia incidence rate was much lower than the state average. Please see Table 14: Sexually Transmitted Disease.

Table 14:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Sexually Transmitted Disease								
Chlamydia incidence per 100,000 population	2014	219.7	NA				265.5	452.2
HIV/AIDS hospitalization rate per 100,000 population	2011	17.0					21.4	NA

Intentional Injury

The public health community recognizes the need to explore and understand the root causes and costs of intentional injury and violence on society. The violent crime rate in Sagadahoc County is half the state average and six times lower than the national average. Sagadahoc's domestic assaults reported to police are also significantly lower than Maine.

The suicide death rate per 100,000 population is 15.2 for both Sagadahoc and Maine. This is higher than the U.S. rate of 12.6. Please see Table 15: Intentional Injury.

Table 15:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Intentional Injury								
Domestic assaults reports to police per 100,000 population	2013	185.5	NA				413	NA
Suicide deaths per 100,000 population	2009-2013	15.2					15.2	12.6
Violent crime rate per 100,000 population	2013	59.9					125	368

Mental Health

The World Health Organization describes health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (2017). Good mental health is a vital component of overall health and allows people to be productive, engaged members of families, workplaces and communities. It is estimated that only about 17% of U.S adults are considered to be in a state of optimal mental health (U.S. DHHS, 1999).

On average, people with severe mental illness die 25 years earlier than the general population (NASMHPD, 2006). People with a serious mental illness also are more likely to experience a wide range of chronic physical conditions. Co-existing mental and physical conditions can negatively impact quality of life and lead to longer illness duration and poorer health outcomes. Lifestyle factors such as obesity, physical inactivity and tobacco use have been linked to mental illness as well.

Sagadahoc has a higher percentage of adults who have ever experienced depression than the state and a lower percentage of adults who have ever had anxiety. Sagadahoc also has a higher percentage of adults currently receiving outpatient mental health treatment. Lack of health insurance can be a major barrier for individuals when seeking mental health services. Please see Table 16: Mental Health.

Table 16:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Mental Health								
Adults who have ever had anxiety	2011-2013	17.7%	NA				19.4%	NA
Adults who have ever had depression	2011-2013	24.2%					23.5%	18.7%
Adults with current symptoms of depression	2011-2013	11%					10%	NA
Adults currently receiving outpatient mental health treatment	2011-2013	18.7%					17.7%	NA
Mental health emergency department rates per 100,000 population	2011	1,854.1					1,972.1	NA

Physical Activity, Nutrition & Weight

Healthy diet and physical activity are significant lifestyle factors which contribute to overall health and reduce risk of chronic diseases such as cardiovascular disease, cancer and diabetes. Unhealthy diet and physical inactivity are contributing factors in the rising rates of obesity in the U.S., where one in three adults are considered obese (CDC, 2016).

Compared to the state average, Sagadahoc County has a lower percentage of obese adults and higher percentage of people meeting physical activity recommendations. However, it has a significantly higher percentage of overweight adults and almost one-fifth of people are considered to have a sedentary lifestyle. Please see table 17: Physical Activity, Nutrition & Weight.

Table 17:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Physical Activity, Nutrition & Weight								
Fruit consumption among Adults 18+ (less than one serving per day)	2013	33.7%	NA				34%	39.2%
Met physical activity recommendations (Adults)	2013	59%					53.4%	50.8%
Sedentary lifestyle – no leisure-time physical activity in past month (Adults)	2011-2013	19.1%					22.4%	25.3%
Obesity (Adults)	2013	24.4%					28.9%	29.4%
Overweight (Adults)	2013	46.7%					36%	35.4%

Pregnancy & Birth

Proper pre-natal care is important to ensure safe pregnancy and delivery for women and reduce risk of complications for infants. Access to coverage through MaineCare plays an important role in pregnant women receiving pre-natal services. Pregnant women with incomes at or below 214% of federal poverty level qualify for full MaineCare benefits. Kaiser Family Foundation estimates that 43% of births in Maine are financed by MaineCare (2015).

Just over 90% of births in Sagadahoc County were to mothers who received early and adequate prenatal care, which was better than the state average. Sagadahoc also had a lower percentage of infants born with low birth weight (<2500 grams). Please see Table 18: Pregnancy & Birth.

Table 18:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Pregnancy & Birth								
Live births for which the mother received early and adequate prenatal care	2010-2012	90.5%	NA				86.4%	84.8%
Low birth weight (<2500 grams)	2010-2012	5.2%					6.6%	8%

Substance & Alcohol Use

From 2011 to 2014, Maine observed a 34% increase in the number of all drug related overdose deaths and a 340% increase in the number of illicit drug-related overdose deaths (Maine DHHS, 2015). Prescription drug and opioid misuse have increased in recent years on the state and national level. Consequences have included increased mortality and morbidity, significantly higher health care expenditures for treatment and emergency services and increased levels of violence and crime. Significant public health resources have gone into researching effective prevention and treatment interventions.

Of particular notice is Sagadahoc County's significantly lower percentage of drug-affected baby referrals as a percentage of all live births (2.2%) compared to Maine's (7.8%) average.

Sagadahoc County has a lower drug related death rate and lower opiate poisoning Emergency Department and hospital admission rates compared to Maine.

The percentage of adults who participate in chronic heavy drinking is similar to the state average. Substance abuse hospital admissions in Sagadahoc are considerably lower than in Maine at large. Please see Table 19: Substance & Alcohol Use.

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 19:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Substance & Alcohol Use								
Binge drinking of alcoholic beverages (Adults)	2011-2013	17%	NA				17.4%	16.8%
Chronic heavy drinking (Adults)	2011-2013	7.2%					7.3%	6.2%
Drug-affected baby referrals received as a percentage of all live births	2014	2.2%					7.8%	NA
Drug-related death rate per 100,000	2012-2014	8.6					13.7	NA
Emergency medical service overdose response per 100,000 population	2014	254					391.5	NA
Opiate poisoning (ED visits) per 100,000 population	2009-2011	23.9					25.1	NA
Opiate poisoning (hospitalizations) per 100,000 population	2009-2011	11.6					13.2	NA
Prescription Monitoring Program opioid prescriptions (days supply/pop)	2014-2015	6.1					6.8	NA
Substance-abuse hospital admissions per 100,000 population	2011	208.2					328.1	NA

Tobacco Use

Smoking is a major risk factor for many diseases and chronic conditions and is the cause of nearly one in five deaths in the United States. Approximately 90% of all lung cancer deaths are attributed to smoking (U.S. DHHS, 2014).

While Sagadahoc has a lower percentage of adult smokers than Maine or the U.S., nearly one in five residents currently smokes. Please see Table 20: Tobacco Use.

Table 20:	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.
Tobacco Use								
Current smoking (Adults)	2011-2013	17.2%†	NA				20.2%	19%

† Results may be statistically unreliable due to small numerator, use caution when interpreting

Secondary data including source information

Quantitative Health Indicators for Oasis Service Area, Maine & U.S.										
Table 21	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Demographics										
Total Population	2010	35,293	20,278	7,879	4,740	3,848	1,328,361	309 mil	2010 U.S. Census	
Population - % ages 18-64	2013	61.3%	NA	NA	NA	NA	62.6%	62.6%	SHNAPP	
Median Age	2010	44.1	41.4	45	52.9	42.7	42.7	37.2	2010 U.S. Census	
Population - % White	2011-2015	95.9%	93%	95.2%	97.7%	94.9%	95%	73.6%	American Community Survey 5-Year Estimates	
Population - % Black or African American	2011-2015	0.7%	1.7%	0.6%	0.1%	0.1%	1.1%	12.6%	American Community Survey 5-Year Estimates	
Population - % American Indian or Alaskan Native	2011-2015	0.3%	0.3%	0.4%	0.3%	0.1%	0.6%	0.8%	American Community Survey 5-Year Estimates	
Population - % Asian	2011-2015	0.7%	2.1%	2.3%	0.6%	0.5%	1.1%	5.1%	American Community Survey 5-Year Estimates	
Population - % Hispanic	2011-2015	1.5%	2.9%	1.1%	0.8%	0%	1.5%	17.1%	American Community Survey 5-Year Estimates	
Population - % with a disability	2013	15.6%	NA	NA	NA	NA	15.9%	12.1%	SHNAPP	
Population density (per square mile)	2010	139.1	433	227	196	100.5	43.1	87.4	2010 U.S. Census	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Socioeconomic Indicators										
Adults and children living in poverty	2009-2013	11.1%	NA	NA	NA	NA	13.6%	15.4%	SHNAPP	
Percentage of people with income below poverty level	2011-2015	12.1%	11.4%	5.9%	14%	8%	13.9%	15.5%	American Community Survey 5-Year Estimates	
Percentage of people with income below poverty level (ages 18-64)	2011-2015	11.8%	13.4%	7.8%	7.8%	6.5%	14%	14.5%	American Community Survey 5-Year Estimates	
Percent high school graduate or higher	2011-2015	93.6%	93.7%	94.6%	96.9%	96.2%	91.6%	86.7%	American Community Survey 5-Year Estimates	Population 25 years and older
Median household income	2011-2015	\$53,298	\$53,737	\$73,072	\$66,290	\$71,908	\$49,331	\$53,889	American Community Survey 5-Year Estimates	
Percentage of people living in rural areas	2013	100%	NA	NA	NA	NA	66.4%	NA	SHNAPP	
Single-parent families	2009-2013	27.5%	NA	NA	NA	NA	34%	33.2%	SHNAPP	
Unemployment rate	2011-2015	3.7%	3.9%	1.7%	1.9%	2%	4.3%	5.2%	American Community Survey 5-Year Estimates	Population 16 years and older
Access										
Adults with usual primary care provider	2011-2013	90.6%	NA	NA	NA	NA	87.7%	76.6%	SHNAPP	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Individuals who are unable to obtain or delay obtaining necessary medical care due to cost	2011-2013	10.2%	NA	NA	NA	NA	11%	15.3%	SHNAPP	
MaineCare enrollment (percent)	2015	21%	NA	NA	NA	NA	27%	23%	SHNAPP	
Percent uninsured	2011-2015	8.3%	8.6%	8.3%	8.1%	6.5%	10%	13%	American Community Survey 5-Year Estimates	
Percent uninsured by employment status (employed)	2011-2015	9.8%	12.8%	8.4%	12.5%	8.7%	13.1%	15.7%	American Community Survey 5-Year Estimates	Population ages 18-64
Percent uninsured by employment status (unemployed)	2011-2015	35.8%	38.7%	42.1%	48.4%	24.2%	36.4%	40.6%	American Community Survey 5-Year Estimates	Population ages 18-64
Percent uninsured by employment status (not in labor force)	2011-2015	13.3%	8.2%	17.7%	18.8%	2.4%	12.2%	19.5%	American Community Survey 5-Year Estimates	Population ages 18-64
Percent uninsured by sex (female)	2009-2013	6.8%	NA				8.5%	13.4%	U.S. Census Bureau, American FactFinder	
Percent uninsured by sex (male)	2009-2013	9.4%					12.3%	16.4%	U.S. Census Bureau, American FactFinder	
Percent uninsured by age (18-64)	2009-2013	11.3%					14.7%	20.6%	U.S. Census Bureau, American FactFinder	
Percent enrolled in Marketplace	2015	5.4%					5.6%	NA	Centers for Medicare & Medicaid Services	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Percent of Marketplace enrollees receiving subsidies	2015	87%	NA				89%	NA	Centers for Medicare & Medicaid Services	
Average Employer-based family insurance premiums	2014	NA					\$16,514	\$16,655	Center for Financing, Access, and Cost Trends, AHRQ	
Average Employer-based individual insurance premiums	2014	NA					\$5,903	\$5,832	Center for Financing, Access, and Cost Trends, AHRQ	
General Health Status										
Adults who rate their health fair to poor	2011-2013	13.6%	NA				15.6%	16.7	SHNAPP	
Adults with 14 + days lost due to poor mental health	2011-2013	11.3%					12.4%	NA	SHNAPP	
Adults with 14 + days lost due to poor physical health	2011-2013	11.1%					13.1%	NA	SHNAPP	
Adults with three or more chronic conditions	2011, 2013	29.4%					27.6%	NA	SHNAPP	
Per capita prescription drugs filled at pharmacies by age (19-64)	2013	NA					16.6	12.6	IMS Health Incorporated	
Average controlled substance prescriptions per person	2009	NA	1.64	1.4	1.41	NA	NA	NA	City of Portland	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Mortality										
Life expectancy (Female)	2012	81.8	NA				81.5	81.2	SHNAPP	
Life expectancy (Male)	2012	78.3					76.7	76.4	SHNAPP	
Overall mortality rate per 100,000 population	2009-2013	713.1					745.8	731.9	SHNAPP	
Health Care Quality										
Ambulatory care-sensitive condition hospital admission rate per 100,000 population	2011	1,530	NA	NA	NA	NA	1,499.3	1457.5	SHNAPP	
Ambulatory care-sensitive condition emergency department rate per 100,000 population	2011	3,374.7	NA	NA	NA	NA	4,258.8	NA	SHNAPP	
Percentage of Emergency Department visits with Potentially Preventable Diagnoses	2006	NA	18.5%	NA	NA	NA	NA	NA	Muskie School of Public Service	Fourteen diagnoses were selected that consist of conditions that likely are treatable in a non-hospital or office-based setting and thus may be preventable emergency department visits.

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Oral Health										
Adults with visits to a dentist in the past 12 months	2012	64.8%	NA	NA	NA	NA	65.3%	67.2%	SHNAPP	
Ratio of population to dentists	2015	1600:1					1,690:1		County Health Rankings	
Percentage of Emergency Department visits with a related dental procedure code (MaineCare members)	2009	NA					12%	NA	Maine DHHS	
Percentage of dental disease related Emergency Department visits attributable to frequent users by insurance status and age (MaineCare, ages 15-24)	2006	NA					44.8%	NA	Muskie School of Public Service	Frequent users defined as individuals who make four or more visits to the Emergency Department over the course of a year.
Percentage of dental disease related Emergency Department visits attributable to frequent users by insurance status and age (MaineCare, ages 25-44)	2006	NA					43.6%	NA	Muskie School of Public Service	Frequent users defined as individuals who make four or more visits to the Emergency Department over the course of a year.

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Percentage of dental disease related Emergency Department visits attributable to frequent users by insurance status and age (Uninsured, ages 15-24)	2006	NA					33.4%	NA	Muskie School of Public Service	Frequent users defined as individuals who make four or more visits to the Emergency Department over the course of a year.
Percentage of dental disease related Emergency Department visits attributable to frequent users by age and insurance status (Uninsured, ages 25-44)	2006						28.7%	NA	Muskie School of Public Service	Frequent users defined as individuals who make four or more visits to the Emergency Department over the course of a year.
Respiratory										
Asthma emergency department visits per 10,000 population	2009-2011	50.5	NA				67.3	NA	SHNAPP	
COPD diagnosed	2011-2013	6.6%					7.6%	6.5%	SHNAPP	
Current asthma (Adults)	2011-2013	12.6%					11.7%	9%	SHNAPP	
Pneumonia emergency department rate per 100,000 population	2011	458.8					719.9	NA	SHNAPP	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Cancer										
Mortality - all cancers per 100,000 population	2007-2011	166.8	NA				185.5	168.7	SHNAPP	
Incidence - all cancers per 100,000 population	2007-2011	453.8					500.1	453.4	SHNAPP	
Bladder cancer incidence per 100,000 population	2007-2011	28.8					28.3	20.2	SHNAPP	
Female breast cancer mortality per 100,000 population	2007-2011	19.1					20	21.5	SHNAPP	
Breast cancer late-stage incidence (females only) per 100,000 population	2007-2011	38.3					41.6	43.7	SHNAPP	
Female breast cancer incidence per 100,000 population	2007-2011	115.2					126.3	124.1	SHNAPP	
Mammograms females age 50+ in past two years	2012	84.9%					82.1%	77%	SHNAPP	
Colorectal cancer mortality per 100,000 population	2007-2011	13.1					16.1	15.1	SHNAPP	
Colorectal late-stage incidence per 100,000 population	2007-2011	18.5					22.7	22.9	SHNAPP	
Colorectal cancer incidence per 100,000 population	2007-2011	36.2					43.5	42	SHNAPP	
Colorectal screening	2012	73%					72.2%	NA	SHNAPP	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Colorectal screening	2012	73%	NA				72.2%	NA	SHNAPP	
Lung cancer mortality per 100,000 population	2007-2011	52.6					54.3	46	SHNAPP	
Lung cancer incidence per 100,000 population	2007-2011	55.3					75.5	58.6	SHNAPP	
Melanoma incidence per 100,000 population	2007-2011	24.1					22.2	21.3	SHNAPP	
Pap smears females ages 21-65 in past three years	2012	90.6%					88%	78%	SHNAPP	
Prostate cancer mortality per 100,000 population	2007-2011	23.8					22.1	20.8	SHNAPP	
Prostate cancer incidence per 100,000 population	2007-2011	141.8					133.8	140.8	SHNAPP	
Tobacco-related neoplasms, mortality per 100,000 population	2007-2011	30.6					37.4	34.3	SHNAPP	
Tobacco-related neoplasms, incidence per 100,000 population	2007-2011	82.8					91.9	81.7	SHNAPP	
Cardiovascular Disease										
Acute myocardial infarction hospitalizations per 10,000 population	2010-2012	23.6	NA				23.5	NA	SHNAPP	
Acute myocardial infarction mortality per 100,000 population	2009-2013	25.1					32.2	32.4	SHNAPP	
Cholesterol checked every 5 years	2011, 2013	83.4%					81%	76.4%	SHNAPP	
Coronary heart disease mortality per 100,000 population	2009-2013	76.1					89.8	102	SHNAPP	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Heart failure hospitalizations per 10,000 population	2010-2012	17.5	NA				21.9	NA	SHNAPP	
Hypertension prevalence	2011, 2013	42.3%					32.8%	31.4%	SHNAPP	
High cholesterol	2011, 2013	39.8%					40.3%	38.4%	SHNAPP	
Hypertension hospitalizations per 100,000 population	2011	35.8					28	NA	SHNAPP	
Stroke hospitalizations per 10,000 population	2010-2012	21.8					20.8	NA	SHNAPP	
Stroke mortality per 100,000 population	2009-2013	50.7					35	36.2	SHNAPP	
Diabetes										
Diabetes prevalence (ever been told)	2011-2013	9.5%	NA				9.6%	9.7%	SHNAPP	
Diabetes emergency department visits (principal diagnosis) per 100,000 population	2011	233.4					235.9	NA	SHNAPP	
Diabetes hospitalizations (principal diagnosis) per 10,000 population	2010-2012	14.5					11.7	NA	SHNAPP	
Diabetes long-term complication hospitalizations	2011	90.8					59.1	NA	SHNAPP	
Diabetes mortality per 100,000 population	2009-2013	12.6					20.8	21.2	SHNAPP	underlying cause

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Environmental Health										
Homes with private wells tested for arsenic	2009, 2012	38.9%	NA				43.3%	NA	SHNAPP	
Immunization										
Adults immunized annually for influenza	2011-2013	47%	NA				41.5%	NA	SHNAPP	
Infectious Disease										
Lyme disease incidence per 100,000 population	2014	182.6	NA				105.3	10.5	SHNAPP	
Sexually Transmitted Disease										
Chlamydia incidence per 100,000 population	2014	219.7	NA				265.5	452.2	SHNAPP	
HIV/AIDS hospitalization rate per 100,000 population	2011	17.0					21.4	NA	SHNAPP	
Intentional Injury										
Domestic assaults reports to police per 100,000 population	2013	185.5	NA				413.0	NA	SHNAPP	
Suicide deaths per 100,000 population	2009-2013	15.2					15.2	12.6	SHNAPP	
Violent crime rate per 100,000 population	2013	59.9					125.0	368	SHNAPP	
Mental Health										
Adults who have ever had anxiety	2011-2013	17.7%	NA				19.4%	NA	SHNAPP	
Adults who have ever had depression	2011-2013	24.2%					23.5%	18.7%	SHNAPP	
Adults with current symptoms of depression	2011-2013	11.0%					10.0%	NA	SHNAPP	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Adults currently receiving outpatient mental health treatment	2011-2013	18.7%	NA				17.7%	NA	SHNAPP	
Mental health emergency department rates per 100,000 population	2011	1,854.1					1,972.1	NA	SHNAPP	
Physical Activity, Nutrition & Weight										
Fruit consumption among Adults 18+ (less than one serving per day)	2013	33.7%	NA				34%	39.2%	SHNAPP	
Met physical activity recommendations (Adults)	2013	59.0%					53.4%	50.8%	SHNAPP	
Sedentary lifestyle – no leisure-time physical activity in past month (Adults)	2011-2013	19.1%					22.4%	25.3%	SHNAPP	
Obesity (Adults)	2013	24.4%					28.9%	29.4%	SHNAPP	
Overweight (Adults)	2013	46.7%					36%	35.4%	SHNAPP	
Pregnancy & Birth										
Live births for which the mother received early and adequate prenatal care	2010-2012	90.5%	NA				86.4%	84.8%	SHNAPP	
Low birth weight (<2500 grams)	2010-2012	5.2%					6.6%	8%	SHNAPP	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Substance & Alcohol Abuse										
Binge drinking of alcoholic beverages (Adults)	2011-2013	17%	NA	NA	NA	NA	17.4%	16.8%	SHNAPP	
Chronic heavy drinking (Adults)	2011-2013	7.2%					7.3%	6.2%	SHNAPP	
Drug-affected baby referrals received as a percentage of all live births	2014	2.2%					7.8%	NA	SHNAPP	
Drug-related death rate per 100,000	2012-2014	8.6					13.7	NA	Margaret Chase Smith Policy Center at University of Maine, Office of the Chief Medical Examiner	Drug related deaths include all drug types (illicit and pharmaceutical)
Emergency medical service overdose response per 100,000 population	2014	254					391.5	NA	SHNAPP	
Opiate poisoning (ED visits) per 100,000 population	2009-2011	23.9					25.1	NA	SHNAPP	
Opiate poisoning (hospitalizations) per 100,000 population	2009-2011	11.6					13.2	NA	SHNAPP	

SECONDARY ANALYSIS FOR OASIS 2017 CHNA

Table 21 cont.	Year	Sagadahoc	Brunswick	Freeport	Harpswell	Durham	Maine	U.S.	Source	Other Notes
Prescription Monitoring Program opioid prescriptions (days supply/pop)	2014-2015	6.1	NA				6.8	NA	SHNAPP	
Substance-abuse hospital admissions per 100,000 population	2011	208.2					328.1	NA	SHNAPP	
Tobacco Use										
Current smoking (Adults)	2011-2013	17.2%†	NA				20.2%	19%	SHNAPP	

NA = No data available

Citations

“Drivers of Health Assessment & Improvement Planning.” (2015). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/stltpublichealth/cha/drivers.html>

“Assessment & Planning Models, Frameworks & Tools.” (2015). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/stltpublichealth/cha/assessment.html>

“Community Health Assessment for Population Health Improvement: Resource of Most Frequently Recommended Health Outcomes and Determinants.” (2013). Centers for Disease Control and Prevention. Office of Surveillance, Epidemiology, and Laboratory Services.

“Insurance Component of the Medical Expenditure Panel Survey, Tables II.D.1 and II.D.2.” (2014). Center for Financing, Access, and Cost Trends, AHRQ.

Heiman, H., & Artiga, S. (2015). “Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity.” Kaiser Family Foundation.

“Access to Health Services”. (2014). Healthy People. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>

Crossing the Quality Chasm: A New Health System for the 21st Century. (2001). Institute of Medicine. Washington, D.C: National Academy Press.

“Report of the Resolve, To Study Expenditures for Oral Health Care in the MaineCare Program (Public Law Chapter 146) Working Group”. (2011). MaineCare Services: The Department of Health & Human Services. Retrieved from https://www1.maine.gov/dhhs/reports/dental_resolve_report.pdf

Kilbreth, B., Shaw, B., Westcott, D., & Gray, C. (2010). “Analysis of Emergency Department Use in Maine: A Study Conducted on Behalf of the Emergency Department Use Work Group of the Maine Advisory Council on Health System Development.” Muskie School of Public Service.

“Asthma in the U.S.”. (2011). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/vitalsigns/asthma/>

“Maine Shared Health Needs Assessment & Planning Process.” (2015). Market Decisions Research and Hart Consulting, Inc. Retrieved from <http://www.maine.gov/dhhs/mecdc/phdata/SHNAPP/documents/county-reports/whole-reports/Maine%20Shared%20CHNA%20SAGADAHOC%20County%20Report-2-29-16.pdf>

“Heart Disease Facts.” (2015). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/heartdisease/facts.htm>

“Diabetes: Working to Reverse the U.S. Epidemic at a Glance.” (2016). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm>

“Private Well Water Safety and Testing.” (2013). Maine Center for Disease Control and Prevention. Retrieved from <http://www.maine.gov/dhhs/mecdc/environmental-health/eohp/wells/mewellwater.htm>

“Environmental Health.” (2014). Healthy People. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-health>

“Maine Tracking Network: Environmental Public Health.” (2017). Maine Center for Disease Control and Prevention. Retrieved from <https://data.mainepublichealth.gov/tracking/>

“Key Facts about Influenza.” (2016). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/flu/keyfacts.htm>

“Reportable Infectious Disease in Maine: 2015 Summary.” (2015). Maine Center for Disease Control and Prevention. Retrieved from <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/publications/AnnualReport-2015-final.pdf>

“Constitution of WHO: Principles.” (2017). World Health Organization. Retrieved from <http://www.who.int/about/mission/en/>

“Mental Health: A Report of the Surgeon General.” (1999). U.S. Department of Health and Human Services; Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.

Parks, J., Svendsen, D., Singer, P., Foti, M. “Morbidity and Mortality in People with Serious Mental Illness.” (2006). National Association of State Mental Health Program Directors.

“Adult Obesity Facts.” (2016). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/obesity/data/adult.html>

“Births Financed by Medicaid.” (2015). Kaiser Family Foundation. Retrieved from <http://kff.org/medicaid/state-indicator/births-financed-by-medicaid/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

Diomedee, T. “SEOW Special Report: Heroin, Opioids and other Drugs in Maine.” (2015). Maine Department of Health and Human Services. Retrieved from http://www.maine.gov/dhhs/samhs/osa/data/cesn/Heroin_Opioids_and_Other_Drugs_in_Maine_SEOW_Report.pdf

“The Health Consequences of Smoking- 50 Years of Progress: A Report of the Surgeon General.” (2014). U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.