PENOBSCOT BAY HEALTHCARE
Rockport, Maine

Community Health Needs Assessment & Implementation Plan

October 1, 2013 – September 30, 2015

1. Description of the Community Served

Penobscot Bay Healthcare (Pen Bay) is a community healthcare system dedicated to caring for the sick and injured and to improving the health and quality of life of the people in mid-coast Maine. Pen Bay incorporates Pen Bay Medical Center, Knox-Waldo-Lincoln Home Care and Hospice, The Knox Center for Long-Term Care, Quarry Hill, and Pen Bay Healthcare Foundation.

Pen Bay draws the bulk of its patients from Knox County, the second smallest of the 11 counties served by MaineHealth. Located in the mid-coast region of the state, its land area spans 365 square miles of mountains, hills, rugged coastline, small rural villages, long peninsulas jutting into the sea, and remote, yet inhabited, islands. Its population totals 39,668 individuals, for a density of 109 people per square mile, which increases dramatically in the summer months. In addition to seasonal tourism, Rockland, Camden, and other oceanfront communities have working waterfronts that support the fishing industry. Rockland is the largest city in Knox County with a population of 7,297.

The county is predominantly White (97.1%) and is second "oldest" among the 11 counties served by MaineHealth, with 19.7% of its residents age 65+. At $45,845, the median household income in Knox County closely mirrors that of the state average. It has the second highest rate of uninsured individuals (14.3%) within the MaineHealth service area, a rate that is significantly higher than the state average (12.2%). With 90.3% and 28.4%, Knox County ranks fifth for percent of population being high school graduates and fourth for those holding bachelor's degrees or higher, respectively.

Pen Bay is a member of the MaineHealth system, a not-for-profit family of leading high-quality providers and healthcare organizations working together to make their communities the healthiest in America. Ranked among the nation's top 100 integrated delivery networks, MaineHealth's service area is home to three-fourths of the state's population of 1.3 million. MaineHealth combines and coordinates clinical, educational, and administrative resources to improve population health, quality, and access, and to lower the cost of care. The system's mission-level focus is unique in the state and the Northeast: it is the foundation for the system's record of effective partnerships with diverse sectors, including local and state public health departments, education, business, transportation, agriculture, and others.

2. Methodology

The OneMaine Health Collaborative (OneMaine), a partnership between MaineHealth, Eastern Maine Healthcare Systems, and MaineGeneral Health, was first created in 2007 as a way to share information and identify the health needs of the communities served by the three systems.
In January 2010, OneMaine contracted with the University of New England's Center for Community and Public Health (CCPH) to conduct a statewide Community Health Needs Assessment (CHNA) that was published in 2011. The assessment, conducted in collaboration with the University of Southern Maine's Muskie School for Public Health and Market Decisions, Inc., was designed to identify the most important health issues in the state, both overall and by county, using scientifically valid health

indicators and comparative information. The assessment also identified priority health issues where better integration of public health and healthcare can improve access, quality, and cost effectiveness of services to residents of Maine. This project represented OneMaine's efforts to share information that can lead to improved health status and quality of care available to Maine residents, while building upon and strengthening Maine's existing infrastructure of services and providers.

The county-specific data for Knox County is included here (Appendix 1). A copy of the full CHNA report produced in 2011, which includes a complete description of the methodology, is posted online on the MaineHealth website (http://mainehealth.org/chna).

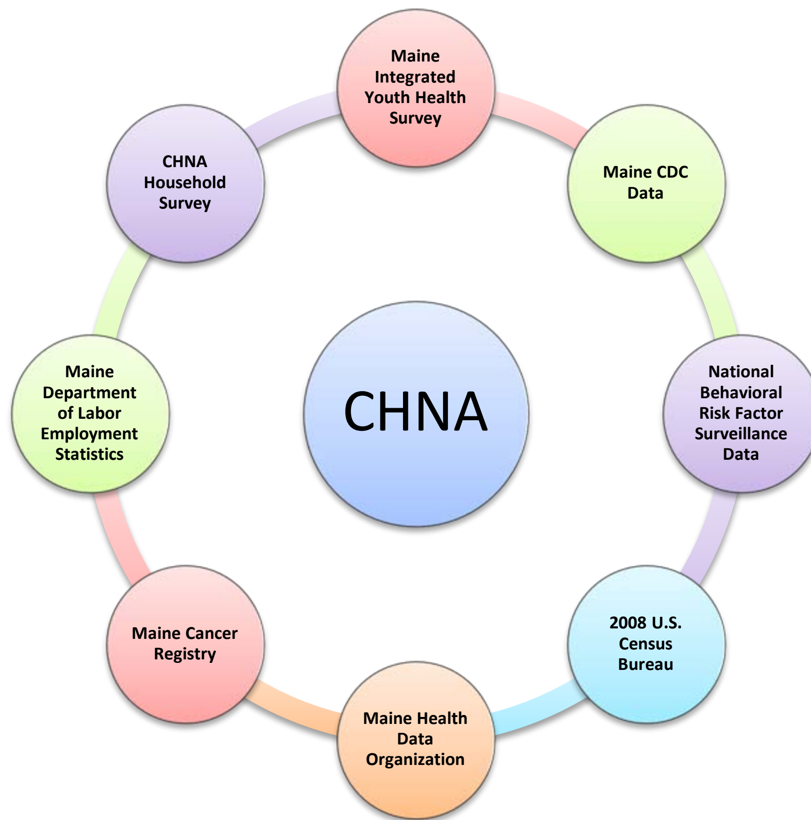

Figure 1. Diagram showing the data sources used in the OneMaine CHNA.

For the CHNA, OneMaine used a modified version of CCPH's Community and Institutional Assessment Process (CIAP). The CIAP is a comprehensive planning process that identifies salient healthcare related issues in the community through a systematic analysis of scientifically derived health indicators and comparative and best practice information. The assessment included primary data from a community randomized household telephone survey and secondary data from state databases (e.g. births and mortality, ED usage, BRFSS, etc.). For the primary data collection, 6,400 Maine households were surveyed by landline and cell phone. The survey, which contained 150 questions in 18 different topic areas, was conducted from June 17th to September 16th, 2010. The response rate was 63% overall, the cooperation rate was 88.9%, the respondent refusal rate was

2.7%, and the average call length was 16.8 minutes. This information was used in conjunction with the other data sources (See Figure 1) to provide a broad picture of all the major health needs of Maine communities.

The CIAP starts with a comprehensive epidemiological-based health profile organized by health domain or condition such as cardiovascular health, respiratory health, cancer health, etc. Indicators for most domains are further organized by risk factors, prevalence (or incidence) or disease or condition, care management indicators and care outcomes. The analysis of indicators within each domain provides information to identify, and subsequently explore, which aspects of the healthcare delivery system may be over- or under-performing for that particular domain (e.g. primary prevention, secondary prevention, etc.). This results in a list of top priority health issues and questions for follow-up with providers, community leaders, agencies and the public, to determine delivery system strengths and deficits that may be driving the indicators. This process, as well as the variety of data sources, ensured that there were no information gaps present.

Community health forums, one of the integral components of the OneMaine CHNA, allowed community members to review the data and identify steps to addressing the identified community priorities. Participants at the community health forums met in small groups to discuss opportunities for collaboration, specific issues, and action steps for each priority. The resulting conversations led to inclusion of the health needs in strategic plans, served as focal points for project development and implementation, and were addressed through hospital support activities. The CHNA was also presented to the hospital's Board of Trustees. CHNA data reports and forum presentations/notes were then posted on the individual hospital websites, as well as the MaineHealth system website.

3. Description of how the community took into account input from persons who represent the broad interests of the community

The hospital convened a planning group made up of people representing the broad interests of the community served prior to holding the forums. The objectives of the meetings (over a period of several months) included the following:

- Review of data in the CHNA report
- Discussion of priority areas among the organizations represented in the planning group
- Define an approach to the community forum to maximize participating by a cross section of the community
- Develop the forum agenda
- Relationship and network building for future collaboration (if not already in existence)
- Successful execution of the forum(s)
- Forum debrief and discussion of next steps

The organizations, individual experts, and individual leaders/representatives involved in the planning group for Pen Bay included:

- Penquis CAP – Pinny Beebe-Center, Regional Manager

- Knox County Community Health Coalition – Nancy Laite, HMP Specialist, Connie Putnam, Director
- Spectrum Generations, Gloria Rhode, Communications Coordinator
- Pen Bay Medical Center – Wendelanne Augunas, Co-Director Picker Family Resource Center; Donna DeBlois, VP Community Health; Adrienne Gallant, Let's Go Coordinator, Picker Family Resource Center; Marcy Kyle, Diabetes and Nutrition Center; Sue Low, Employee Health Manager; Megan Richards, Administrative Assistant & Media Specialist Picker Family Resource Center; Linda Zeigler, Co-Director Picker Family Resource Center

4. Description of Existing Healthcare Facilities and Other Resources within the Community Available to Meet Health Needs

- Pen Bay Medical Center (including Knox County's only Psychiatric Addiction Recovery Center and outpatient Integrated Behavioral Health program)
- PBH Physicians (Family Practice, Internal Medicine, Pediatrics, Women's Health, Physical Therapy, Cardiology, Nephrology, Neurology, Urology, Pulmonology, Orthopedics/Surgery, General Surgery, Wound Healing Center, Sleep Medicine Center)
- PBH Home Care and Hospice, Senior and Assisted Living (including Kno-Wal-Lin, Quarry Hill, Anderson Inn and Knox Center for Long Term Care)
- Picker Family Resource Center (Health education classes, screenings & support including Fresh Start Tobacco Cessation, Living Well with Chronic Disease/Chronic Pain)
- Private Physician Practices
- Knox County Free Clinic (includes Dental Health Services)
- Family Planning Association of Maine/Rockland
- Public Health Nursing
- Private Counseling Services
- Counseling & Family Support Services (including Mid Coast Mental Health Center, DHHS, Harbor Family Services, Home Counselors, Broad Reach, Sweetser)
- CDS (Child Developmental Services)
- Knox County Community Health Coalition (HMP-Healthy Maine Partnership)
- Mid Coast District Public Health Coordinating Council (DCC)
- Spectrum Generations
- Let's Go Knox County
- Maine Families
- AIO (Area Interfaith Outreach)-Knox County Food Pantry
- U-Roc Community College Health Education Program
- Penobscot Bay YMCA

5. Prioritized Description of All Community Health Needs Identified

All priorities:

- **Access to care**
- **Alcohol and substance use**
- Cancer
- **Care for chronic conditions**
- ED visits
- Hospital admissions**

- **Mental health**
- **Prevention/obesity****
- Reproductive health
- Smoking

Bold = Health Needs discussed in community forums
** = Priorities with Focused Goals for FY13. Focused Goals are annual goals representing the highest priorities for the health system. Health system CEOs and executives develop the goals and are held accountable for their outcomes.

Italicized = Priorities not addressed due to lack of consensus from community partners regarding the importance of the issue and/or a lack of resources to address the issue

6. Implementation Plan

Members of the MaineHealth system incorporated priorities that emerged from the CHNA report and community forums into strategic plans at the hospital level and at the health system level. By tying community health status priorities to strategic plans, the health system ensures that resources are also prioritized to meet the target outcomes.

Priority	Activities	Anticipated Impact of Activities	Plan to Evaluate Impact	Programs and Resources Committed	Planned Collaboration with Other Organizations
Access to care	Partner of Promise Neighborhoods grant	Increase accessibility and affordability of care to expand services	Monitor percentage of uninsured adults Monitor reports of unmet medical needs due to cost	Picker Family Resource Center	Many Flags Project
Alcohol and substance use	Partner with Community Programs and promote educational resources for youth	Decrease rates of chronic alcohol and substance use for youth	Knox County Community Health Coalition (KCCHC) monitors MIDAS data	Picker Family Resource Center	KCCHC

Priority	**Activities**	**Anticipated Impact of Activities**	**Plan to Evaluate Impact**	**Programs and Resources Committed**	**Planned Collaboration with Other Organizations**
Cancer	Clinical Conference for dermatological conditions Maine Cancer Consortium Grant for Cancer Prevention and Survival Food For Life cooking classes Cancer support groups	Decrease the rate of cancer and prevent recurrence	Monitor incidence of different cancers by population	Picker Family Resource Center	Cancer Care Center at PBMC Food For Life ME Cancer Consortium Medical Staff Support Services
Care for chronic conditions	Living Well with Chronic Conditions workshop	Increase care and coordination for chronic conditions	Attendee evaluation of workshop	Picker Family Resource Center	Pen Bay Primary Care Providers Quarry Hill YMCA Spectrum Generations
ED visits	Health Literacy Education	Increase patient understanding of discharge instructions	Monitor Health Literacy Education module completion rate among ED staff rates	Pen Bay Health Literacy Team	Emergency Department and Anita Ruff and Sue Stableford MEHealth LRC
Hospital admissions	Continuity of Care Committee reviews readmissions monthly to identify opportunities for improvement Improved communication with primary care	Reduction of 30 day readmission rate of Medicare patients	Monitor 30-day readmission rates to the same hospital using quarterly PEPPER reports	Continuity of Care Committee Primary care offices	Communication with collaborative organizations programs to share strategies and innovations PBMC Quality Committee

Priority	Activities	Anticipated Impact of Activities	Plan to Evaluate Impact	Programs and Resources Committed	Planned Collaboration with Other Organizations
	providers Every other month case review meeting Interdisciplinary rounding (includes hospitalists, floor nurses, PT MSW, case managers, RT, home care and sometimes SNF) Follow up discharge calls Integrated nurse care coordinators in primary care practices Hospital-based Care Transitions Coach Expanded communication with collaborative organizations and programs Guest speakers				
Mental health	Expand use of PHQ9 screening tool across PBH system	Early identification to treat and decrease rates of depression	Monitor # of patients screened with PHQ9	PBMC clinicians	Information Technology PBMC clinicians and staff
Prevention and obesity	Register Let's Go! Sites Added LG to 211 Provide TA to sites Start discussions internally re:	Reduce rate of childhood obesity	Successful achievement of 100% of Let's Go! Knox Outcomes Goal 1: <u>Exceeded</u>	Let's Go! Pen Bay Picker Family Resource Center	Healthy Maine Partnerships Let's Go! Home Office 2-1-1 Maine Early childcare

Priority	Activities	Anticipated Impact of Activities	Plan to Evaluate Impact	Programs and Resources Committed	Planned Collaboration with Other Organizations
	sustainability Conference for Early Childcare providers in Knox County Host educational dinner meeting on Motivational Interviewing for pediatric, OB/Gyn and family medicine doctors Collaborate with multiple entities to disseminate HEAL information Develop pilot project for Parental Engagement through the CTG		registration goal of 35% (40%) & in progress for recognition goal Goal 2: Met marketing/awareness objectives Goal 3: In progress – drafting a sustainability plan & in conversation with PBH Foundation Goal 4: Met infrastructure objectives		providers Pediatric and family medicine doctors
Reproductive Health	Convened Adolescent Sexual Knowledge forum Developed *Nurture Me* series through HOMETowns CTG Grant/Maine Health	Evaluate reproductive health education for adolescents in Knox County Healthier pregnancies Better outcomes Healthier moms	Monitor the rate of teen pregnancy and childbirth Monitor rate of premature and LBW babies Attendee evaluation of classes	Picker Family Resource Center PBMC OB/GYN and Maternity providers and staff	Midcoast Family Planning RSU 13 Camden Hills Regional HS Knox County Community Health Coalition and Passages Program at the Community school

Priority	Activities	Anticipated Impact of Activities	Plan to Evaluate Impact	Programs and Resources Committed	Planned Collaboration with Other Organizations
					Developing collaboration links
Smoking	Fresh Start smoking cessation program In-patient tobacco cessation counseling MAs & Nurses in Pen Bay Primary care setting trained to engage patients re: readiness to quit	Increase # of patients referred to quit line Decrease # of tobacco users	Monitor quit line usage Monitor overall # of tobacco users	PBPA Primary Care Practices Pen Bay Tobacco Specialist Picker Family Resource Center	Center for Tobacco Independence PBPA Primary Care Physicians Knox County Community Health Coalition

APPENDIX 1

KNOX COUNTY KEY FINDINGS

- 2008 Population Estimate = 40,917
- 2008 Median Household Income 2008 = $44,863
- 18% of residents are age 65+
- 21% of residents enrolled in Medicaid

Health Risks and Challenges

Risk Factors

- **Access to Care**: High percentage of nonelderly adults (18-64) uninsured [KNO=20%, ME=16%]
- **Prevention**:
  - High percentage of adults with no checkup past 2 years [KNO=13%, ME=10%]
  - Low percentage of adult males with prostate exam past 2 years [KNO=32%, ME=36%]
- **Smoking**: Low percentage of current smokers have ever used Maine Tobacco Quitline: [KNO=14%, ME=19%]
- **Alcohol and Substance Use**:
  - High percentage of chronic heavy drinking [KNO=7.3%, Me=6.4%], particularly among elderly (65+) [KNO=6.4%, ME=4.5%]
  - High percentage report diagnosis of substance abuse problem in lifetime [KNO=7.3%, ME=4.7%]
  - High percentage report misuse of prescription drugs in past 30 days [KNO=2.8%, ME=1.8%]
- **Interpersonal Violence**: High percentage reporting experience of interpersonal violence in lifetime [KNO=16%, ME=12%]
- **Reproductive Health**: High teen birth rate

Disease Incidence & Prevalence

- **Cancer**:
  - High percentage reporting ever diagnosed with cancer [KNO=9.6%, ME=7.5%]
  - Highest incidence of melanoma of any county
  - High incidence of female breast cancer
- **Arthritis**: High percentage diagnosed with arthritis [KNO=36%, ME=32%]

Health Assets and Opportunities

Risk Factors

- **Access to Care**:
  - Low percentage reporting no usual source of medical care [KNO=11%, ME=13%]
  - Lowest percentage reporting no dental visit in past 2 years of any county [KNO= 17%, ME= 24%]
- **Health Status:**
  - Low percentage reporting health as fair to poor [KNO=11%, ME=15%]
  - Lowest percentage of any county with 3+ chronic conditions [KNO=11%, ME=16%]
- **Smoking**: Low percentage of current smokers [KNO=18%, ME=22%]
- **Reproductive Health**:
  - Low rate of low birth weight newborns [KNO=4.9%, ME=6.4%]
  - Low rate of premature newborns [KNO=7.0%, ME=8.7%]

Disease Incidence & Prevalence

- **Heart Disease**: Low prevalence of heart disease [KNO=5.5%, ME=6.3%]
- **Asthma**: Low prevalence of adult asthma [KNO=7.5%, ME=10%]
- **COPD**: Lowest COPD prevalence of any county [KNO=2.0%, ME=4.2%]
- **Diabetes**: Low prevalence of diabetes [KNO=9.2%, ME=10.4%]
- **Cancer**: Low incidence of bladder and cervical cancers
- **Mental Health**: Low prevalence of current or past diagnosed MH problems
- **Infectious Disease**: Low incidence of infectious disease

Health Risks and Challenges	Health Assets and Opportunities
Hospital Utilization & Mortality Rates	
• **Hospital Admissions**: o High ambulatory care sensitive conditions hospitalization rate o Highest hospital admission rates of any county for head/brain injuries o High hospital admission rates for cerebrovascular disease (stroke), major depressive disorder, schizophrenia, and anxiety o High psychoses hospital admissions among adults (18+) o High hospitalization rates for acute alcohol- and acute drug-related mental disorders among non-elderly adults (18-64) • **Emergency Department (ED) Visits**: o High ED visit rates among adults 18-44 o High ED visits for bronchitis/asthma among youth (0-17) o High ED visits for COPD • **Mortality**: o AMI mortality rate high, particularly among elderly (65+) o High mortality rates for bladder, breast, melanoma and prostate cancers o 2nd highest suicide mortality rate of any county o High motor vehicle accident and smoking related neoplasm mortality rates among males	• Low hospital admission rates for most respiratory diseases • Lowest diabetes hospitalization rates of any county for 18-44 year old adults • Low ambulatory care sensitive conditions ED visit rate among adults, including uncontrolled diabetes • Low ED visit rates for mental health and substance abuse problems • Low diabetes, cervical cancer, and alcohol related mortality rates • Lowest smoking related neoplasm mortality and 2nd lowest lung cancer mortality among females

Note: The term high connotes a result at least 10% greater than Maine result. The term low connotes a result at least 10% less than the Maine result.
Highest and 2nd highest are based on comparisons between Maine counties.
Additional detail on indicators and data sources can be found in full report – Appendix 9: Detailed Data Sources

	Knox	Maine	Maine Counties Source
DEMOGRAPHICS			
Total Population	40,917	1,319,691	2008 Census Estimates
Median Annual Household Income (to 2008)	$44,863	$46,807	ME SPO Data Center
% of Labor Force Unemployed	7.0%	7.8%	ME Dept Labor
% Population Not Attaining H.S. Diploma (>25 yr)	13%	15%	2000 Census
% Population on Medicaid (all ages)	21%	23%	2004 CMS, HRSA Area Resource File
% Population Under the Age of 18	19%	21%	2008 Census Estimates
% Population Age 65 and Over	18%	15%	2008 Census Estimates
% Uninsured Non-Elderly Adults (Ages 18-65)	20%	16%	Household Survey
HEALTH STATUS			
% Health Fair to Poor	11%	15%	Household Survey
% 11+ Days Lost due to Poor Mental or Physical Health	8%	8%	Household Survey
% 3+ Chronic Conditions	11%	13%	Household Survey
Wellness Categories:			
%Well	37%	34%	Household Survey
%At Risk for Future Medical Problems	7%	8%	Household Survey
%Some Health Problems	37%	36%	Household Survey
%Not Well	18%	23%	Household Survey
ACCESS TO CARE			
% Without Usual Source of Primary Care (Males)	17%	18%	Household Survey
% Without Usual Source of Primary Care (Females)	6.1%	8.3%	Household Survey
% Named hospital or ER as usual source of care	1.4%	1.9%	Household Survey
% Not Having a Checkup Within the Past 2 yrs (Males)	20%	15%	Household Survey
% Not Having a Checkup Within the Past 2 yrs (Females)	7.2%	6.4%	Household Survey
% Received Flu Shot or Mist past 12 months	44%	42%	Household Survey
% Ever Received Pneumoccal Vaccine (Age 65+)	71%	73%	Household Survey
% Needed Medical Care But Could not Afford it: Past Year	6.5%	6.5%	Household Survey
% No Dental Visit in Past 2 Years	17%	24%	Household Survey
ED Visits per 100,000 population	50,204	47,665	MHDO Hosp ED
Ages 65+	48,922	49,497	MHDO Hosp ED
Hospitalizations per 100,000 Population	12,718	12,076	MHDO Hosp Inpatient
Ages 65+	29,815	31,396	MHDO Hosp Inpatient
QUALITY/EFFECTIVENESS			
Ambulatory Care Sensitive Condition (ACSC), Hospital Admission Rate (Overall PQI*)	1,163	967	MHDO Hosp Inpatient
Ages 0-17	265	191	MHDO Hosp Inpatient
Ages 18-44	250	234	MHDO Hosp Inpatient
Ages 45-64	792	707	MHDO Hosp Inpatient
Ages 65+	4,279	4,166	MHDO Hosp Inpatient
Ambulatory Care Sensitive Condition (ACSC), ED Visit Rate (Overall PQI*)	2,782	3,073	MHDO Hosp Inpatient
Ages 0-17	2,150	1,994	MHDO Hosp Inpatient
Ages 18-44	2,561	2,868	MHDO Hosp Inpatient
Ages 45-64	2,096	2,374	MHDO Hosp Inpatient
Ages 65+	4,998	6,375	MHDO Hosp Inpatient

All rates are per 100,000 population (based on US Census estimates 2008) unless otherwise noted

		Knox	Maine	Maine Counties Source
CARDIOVASCULAR HEALTH				
Risk Factors	% Current Smokers (Age 18+)	18%	22%	Household Survey
	% Sedentary Lifestyle (measured by no physical activity)	19%	21%	Household Survey
	% Overweight (Ages 18+)	38%	37%	Household Survey
	% Obesity (Ages 18+)	25%	28%	Household Survey
Disease Prevelan	% High Cholesterol	28%	29%	Household Survey
	% High Blood Pressure	32%	30%	Household Survey
	% Heart Disease	5.5%	6.3%	Household Survey
Management	Congestive Heart Failure, Hospital Admissions	301	283	MHDO Hosp Inpatient
	AMI, Hospital Admission Rate	227	211	MHDO Hosp Inpatient
	Ages 45-64	182	157	MHDO Hosp Inpatient
	Ages 65+	905	1,037	MHDO Hosp Inpatient
	Cerebrovascular Disease (stroke), Hospital Admission Rate	180	149	MHDO Hosp Inpatient
	CABG, Hospital Admission Rate	66	62	MHDO Hosp Inpatient
	% Having Cholesterol Checked within the past year (Ages 21+)	60%	63%	Household Survey
	% Smokers advised to quit smoking in the past yr.	68%	72%	Household Survey
Quality/Effectivenes s	AMI, Mortality Rate	58	45	ODRVS Mortality
	Ages 65+	271	232	ODRVS Mortality
	Cerebrovascular Disease (stroke), Mortality Rate	50	49	ODRVS Mortality
	Ages 65+	262	294	ODRVS Mortality
	Heart Disease, Mortality Rate	213	202	ODRVS Mortality
	Ages 65+	1,003	1,101	ODRVS Mortality

All rates are per 100,000 population (based on US Census estimates 2008) unless otherwise noted

Overall PQI = methodology based on AHRQ Prevention Quality Indicators using 13 identified conditions

		Knox	Maine	Maine Counties Source
RESPIRATORY HEALTH				
	% Current Smokers (Male)	19%	23%	Household Survey
	% Current Smokers (Female)	18%	20%	Household Survey
	% Former Smokers	30%	31%	Household Survey
Disease Prevelance	% Current Asthma (Ages 18+)	7.5%	10%	Household Survey
	% Ever Asthma (Ages 0-17)	5.0%	6.1%	Household Survey
	% COPD	2.0%	4.2%	Household Survey
	Lung and Broncus Cancer, Males, Incidence Rate	109	105	ME CDC Cancer Reg
	Lung and Broncus Cancer, Females, Incidence Rate	92	86	ME CDC Cancer Reg
Management	% Received Flu Shot or Mist past 12 months	44%	42%	Household Survey
	% Ever Received Pneumoccal Vaccine (Ages 65+)	71%	73%	Household Survey
	Bronchitis and Asthma, Hospital Admission Rate	86	87	MHDO Hosp Inpatient
	Ages 65+	166	114	MHDO Hosp Inpatient
	Bronchitis and Asthma, ED Visit Rate	872	988	MHDO Hosp ED
	Ages 65+	526	632	MHDO Hosp ED
	COPD, Hospital Admission Rate	280	284	MHDO Hosp Inpatient
	COPD, ED Visit Rate	1,151	998	MHDO Hosp Inpatient
	Ages 65+	1,817	1,914	MHDO Hosp Inpatient
	Pneumonia, Hospital Admission Rate	348	326	MHDO Hosp Inpatient
	Ages 65+	1,264	1,402	MHDO Hosp Inpatient
	Pneumonia, ED Visit Rate	316	505	MHDO Hosp Inpatient
	Ages 65+	552	1,053	MHDO Hosp Inpatient
	Emphysema, Hospital Admission Rate	33	23	MHDO Hosp Inpatient
	Ages 65+	113	79	MHDO Hosp Inpatient
	% Current Smokers advised to quit smoking in the past year	67%	72%	Household Survey
	% Current smokers tried to quit in past year	53%	54%	Household Survey
	% Current smokers ever used Maine Tobacco Quitline	14%	19%	Household Survey
	Lung Cancer, Mortality Rate (Males)	82	78	ODRVS Mortality 07-09
	Lung Cancer, Mortality Rate (Females)	47	61	ODRVS Mortality 07-09
	COPD, Mortality Rate (Ages 65+)	262	332	ODRVS Mortality 07-09
	Pneumonia, Mortality Rate (Ages 65+)	89	103	ODRVS Mortality 07-09
	Smoking-Related Neoplasms, Mortality Rate (Males)	234	205	ODRVS Mortality 07-09
	Smoking-Related Neoplasms, Mortality Rate (Females)	127	150	ODRVS Mortality 07-09

All rates are per 100,000 population (based on US Census estimates 2008) unless otherwise noted

OneMaine Health Collaborative
EMHS / MaineGeneral Health / MaineHealth

		Knox	Maine	Maine Counties Source
CANCER HEALTH				
	All Cancers, Incidence Rate	690	629	ME CDC Cancer Reg
	Bladder, Incident Rate	31	35	ME CDC Cancer Reg
	Female Breast Cancer, Incidence Rate	196	162	ME CDC Cancer Reg
	Female Cervix Uteri, Incidence Rate	6.4	7.3	ME CDC Cancer Reg
	Colorectal, Incidence Rate	59	62	ME CDC Cancer Reg
	Lung and Bronchus Cancer, Incidence Rate	100	95	ME CDC Cancer Reg
	Melanoma, Incidence Rate	39	26	ME CDC Cancer Reg
	Male Prostate, Incidence Rate	190	187	ME CDC Cancer Reg
Management / Patient Care	% Reported Mammogram past year (40+)	66%	69%	Household Survey
	% Stage Female Breast, Local	66%	66%	ME CDC Cancer Reg
	% Stage Female Breast, Distant	5.7%	3.8%	ME CDC Cancer Reg
	% Reported Pap Smear past 2 years	69%	70%	Household Survey
	% Stage Cervix Uteri Female, Local	50%	52%	ME CDC Cancer Reg
	% Stage Cervix Uteri Female, Distant	25%	14%	ME CDC Cancer Reg
	% Reported Blood Stool Test Past Year (Age 50+)	23%	20%	BRFSS 2006/2008
	% Reported Having Sigmoid/Colonoscopy Past 5 Yrs (Age 50+)	60%	63%	Household Survey
	% Stage Colorectal, Local	50%	47%	ME CDC Cancer Reg
	% Stage Colorectal, Distant	17%	17%	ME CDC Cancer Reg
	% Stage Lung and Brunchus Male, Local	12%	16%	ME CDC Cancer Reg
	% Stage Lung and Brunchus Male, Distant	53%	50%	ME CDC Cancer Reg
	% Stage Lung and Brunchus Female, Local	23%	21%	ME CDC Cancer Reg
	% Stage Lung and Brunchus Female, Distant	47%	47%	ME CDC Cancer Reg
	% Reported Prostate Exam (PSA test) past 2 yrs (males Age 50+)	68%	69%	Household Survey
	% Reported Digital Rectal Exam past 2 years (males Age 50+)	63%	68%	Household Survey
	% Stage Prostate, Local	81%	76%	ME CDC Cancer Reg
	% Stage Prostate, Distant	4.3%	3.8%	ME CDC Cancer Reg
Quality/Effectiveness	All Cancers, Mortality Rate	244	234	ODRVS Mortality
	Bladder, Mortality Rate	9.8	7.5	ODRVS Mortality
	Female Breast Cancer, Mortality Rate	35	28	ODRVS Mortality
	Female Cervix Uteri, Mortality Rate	1.6	2.5	ODRVS Mortality
	Colorectal, Mortality Rate	19	21	ODRVS Mortality
	Lung, Mortality Rate	64	69	ODRVS Mortality
	Melanoma, Mortality Rate	4.1	3.6	ODRVS Mortality
	Male Prostate, Mortality Rate	33	23	ODRVS Mortality

All rates are per 100,000 population (based on US Census estimates 2008) unless otherwise noted

		Knox	Maine	Maine Counties Source
DIABETES HEALTH				
Disease Prevelance	% Diagnosed Diabetes	9.2%	10%	Household Survey
	Ages 18-44	2.1%	2.9%	Household Survey
	Ages 45-64	11%	13%	Household Survey
	Ages 65+	17%	21%	Household Survey
Management	% Reported hemoglobin A1c measurement (at least once) in past year (Age 18+)	91%	89%	Household Survey
	% Reported pupil dilation eye exam in past yr (age 18+)	78%	76%	Household Survey
	% Reported foot examination in past yr (Age 18+)	67%	78%	Household Survey
	% Reported ever taken diabetes self management course (Age 18+)	63%	54%	Household Survey
	Diabetes, Hospital Admission Rate	73	79	MHDO Hosp Inpatient
	Ages 18-44	32	75	MHDO Hosp Inpatient
	Ages 45-64	89	75	MHDO Hosp Inpatient
	Ages 65+	160	150	MHDO Hosp Inpatient
	Diabetes Short-term Complications, ACSC ED Visit Rate	6	9	MHDO Hosp Inpatient
	Diabetes Long-term Complications, ACSC ED Visit Rate	134	111	MHDO Hosp Inpatient
	Diabetes Uncontrolled, ACSC ED Visit Rate	9	11	
Quality/	Diabetes, Mortality Rate	19	26	ODRVS Mortality
	Ages 65+	71	126	ODRVS Mortality

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OneMaine Health Collaborative
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		Knox	Maine	Maine Counties Source
	MENTAL HEALTH			
Risk Factors	% 11+ Days Mental Health Not Good	10%	11%	BRFSS 2008 + 2009
	Ages 65+	5.8%	6.1%	BRFSS 2008 + 2009
	% needed, but did not get, mental health treatment in past 12 months	4.6%	4.8%	Household Survey
Disease Prevalence	% receiving outpatient mental health treatment in past 12 mos	11%	11%	Household Survey
	% At Risk for Clinical Depression Based on MHI5 (18+)	7.7%	7.2%	Household Survey
	% Diagnosed Depression (ever, 18+)	19%	22%	Household Survey
	% Current Depression (18+)	12%	15%	Household Survey
	% Diagnosed Other Psychiatric Disorder (ever, 18+)	11%	13%	Household Survey
	% Developmental Delay/Learning Disability (Ages 0-17)	3.4%	4.5%	Household Survey
Management	Psychoses Hospital Admission Rate	689	578	MHDO Hosp Inpatient
	Ages 65+	319	246	MHDO Hosp Inpatient
	Senility and Organic Mental Disorders, Hospital Admission Rate	7.3	8.6	MHDO Hosp Inpatient
	Ages 65+	40	50	MHDO Hosp Inpatient
	Major Depressive Disorder, Hospital Admission Rate	302	157	MHDO Hosp Inpatient
	Ages 0-17	82	85	MHDO Hosp Inpatient
	Ages 18-64	424	196	MHDO Hosp Inpatient
	Ages 65+	120	93	MHDO Hosp Inpatient
	Bipolar Disorder, Hospital Admission Rate	230	280	MHDO Hosp Inpatient
	Ages 65+	120	88	MHDO Hosp Inpatient
	Schizophrenia, Hospital Admission Rate	142	114	MHDO Hosp Inpatient
	Ages 65+	67	39	MHDO Hosp Inpatient
	Anxiety, Hospital Admission Rate	356	269	MHDO Hosp Inpatient
	Ages 65+	76	70	MHDO Hosp Inpatient
	Senility and Organic Mental Disorders, ED Rate	15	28	MHDO Hosp ED
	Major Depressive Disorder, ED Rate	93	109	MHDO Hosp ED
	Bipolar Disorder, ED Rate	122	166	MHDO Hosp ED
	Schizophrenia, ED Rate	37	70	MHDO Hosp ED
	Anxiety Disorder, ED Rate	1,281	1,618	MHDO Hosp ED
	Suicide, Mortality Rate (Males)	30	23	ODRVS Mortality
	Suicide, Mortality Rate (Females)	8.1	5.4	ODRVS Mortality

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		Knox	Maine	Maine Counties Source
	SUBSTANCE ABUSE			
Prevelance	% Chronic Heavy Drinking - Past Month	7.3%	6.4%	BRFSS 2008 & 2009
	Ages 65+	6.4%	4.5%	BRFSS 2008 & 2009
	% Binge Drinking -Past Month	16%	15%	BRFSS 2008 & 2009
	Ages 18-44	21%	26%	BRFSS 2008 & 2009
	% Ever diagnosed with Substance Abuse Problem	7.3%	4.7%	Household Survey
	% Current Substance Abuse Problem	1.3%	1.5%	Household Survey
	% Overdose Past 12 mos (Households)	0.5%	0.9%	Household Survey
	% have used any street drugs in past 30 days	4.5%	5.2%	Household Survey
	% have used any prescription drugs for non-prescribed purpose in past 30 days	2.8%	1.8%	Household Survey
Management	Substance Abuse, Hospital Admission Rate	363	379	MHDO Hosp Inpatient
	Ages 65+	160	149	MHDO Hosp Inpatient
	Acute Alcohol-Related Mental Disorders, Hospital Admission Rate	98	50	MHDO Hosp Inpatient
	Ages 65+	20	19	MHDO Hosp Inpatient
	Alcohol-Related Psychoses, Hospital Admission Rate	108	174	MHDO Hosp Inpatient
	Ages 65+	27	52	MHDO Hosp Inpatient
	Acute Drug-Related Mental Disorders, Hospital Admission Rate	62	39	MHDO Hosp Inpatient
	Ages 65+	0	6.5	MHDO Hosp Inpatient
	Drug-Related Psychoses, Hospital Admission Rate	95	117	MHDO Hosp Inpatient
	Ages 65+	113	72	MHDO Hosp Inpatient
	Acute Alcohol-Related Mental Disorders, ED Rate	100	131	MHDO Hosp ED
	Alcohol-Related Psychoses, ED Rate	8.6	28	MHDO Hosp ED
	Acute Drug-Related Mental Disorders, ED Rate	221	297	MHDO Hosp ED
	Drug-Related Psychoses, ED Rate	50	57	MHDO Hosp ED
	Alcohol-Related Mortality Rate (Males)	16	19	ODRVS Mortality
	Alcohol-Related Mortality Rate (Females)	8.1	10	ODRVS Mortality
	Alcohol Liver Disease, Mortality Rate	8.1	11	ODRVS Mortality
	Motor Vehicle Accidents, Mortality Rate (Males)	26	21	ODRVS Mortality
	Motor Vehicle Accidents, Mortality Rate (Females)	8.1	8.0	ODRVS Mortality

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		Knox	Maine	Maine Counties Source
REPRODUCTIVE HEALTH				
	2 or more sex partners in past yr (ages 18-34)	12%	16%	Household Survey
	% used condom last time had sex (ages 18-34)	35%	35%	Household Survey
	Teen Birth Rate (10-17yrs) Per 1,000 Females	5.1	4.1	ODRVS Birth
Management	High Risk Pregancy, Hospital Admission Rate (10-44 year old females)	238	360	MHDO Hosp Inpatient
Management	C-Section Rate per 100 births	30	30	ODRVS Birth
Management	% Adequate Prenatal Care (of live births)	94%	91%	ODRVS Birth
Management	% Inadequate Prenatal Care (of live births)	1.9%	2.5%	ODRVS Birth
	% Low Birthweight (<2500 grams)	4.9%	6.4%	ODRVS Birth
	% Prematurity (< 37 weeks)	7.0%	8.7%	ODRVS Birth
	Infant Mortality Rate (deaths to infants from birth through 364 days of age) per 1,000 live births	5.9	5.5	ODRVS Mortality
	Neonatal Mortality Rate (deaths to infants under 28 days) per 1,000 live births	4.2	3.9	ODRVS Mortality
CHILD/YOUTH HEALTH				
	% Seriously Considered Suicide	NA	14%	MIYHS 2009
	% Current Smoker (Past Month) (Grade 9-12)	NA	20%	MIYHS 2009
	% Current Smokeless Tobacco User	NA	9.5%	MIYHS 2009
	% Alcohol Use (Past Month) (Grade 9-12)	NA	35%	MIYHS 2009
	% Binge Drink (5+ in a row) Past Month) (Grade 9-12)	NA	21%	MIYHS 2009
	% Marijuana Use (Past Month) (Grade 9-12)	NA	24%	MIYHS 2009
	% Sniffed Glue or Other Inhalant (Past Month) (Grade 9-12)	NA	9%	MIYHS 2009
	% Regular Physical Activity (at least 60 min on 5 of last 7 dys)	NA	39%	MIYHS 2009
	% Consume fruits and vegetables 5 or more times/day	NA	15%	MIYHS 2009
	Teen Birth Rate (10-17yrs) Per 1,000 Female Population	5.1	4.1	ODRVS Birth
Prevalance	% Ever Been Diagnosed with Asthma (0-17) parental report	5.0%	6.1%	Household Survey
Prevalance	% Overweight/Obesity Problem (0-17) parental report	1.7%	2.0%	Household Survey
Prevalance	% Overweight (Grade 9-12)	NA	14%	MIYHS 2009
Prevalance	% Obese (Grade 9-12)	NA	13%	MIYHS 2009
Prevalance	% with developmental delay or learning disability (0-17) parental report	3.4%	4.5%	Household Survey
Management	ACSC, ED Rate - Overall PQI (Ages 0-17)	2,150	1,994	MHDO Hosp Inpatient
Management	ACSC, Hospital Admission Rate - Overall PQI (Ages 0-17)	265	191	MHDO Hosp Inpatient
Management	Asthma and Bronchitis, Hospital Admission Rate (Ages 0-17)	151	196	MHDO Hosp Inpatient
Management	Pneumonia, Hospital Admission Rate (Ages 0-17)	164	132	MHDO Hosp Inpatient
Management	Psychoses Hospital Admission Rate (Ages 0-17)	372	484	MHDO Hosp Inpatient
Management	Major Depressive Disorder, Hospital Admission Rate (Ages 0-17)	82	85	MHDO Hosp Inpatient
Management	Bipolar Disorder, Hospital Admission Rate (Ages 0-17)	277	353	MHDO Hosp Inpatient
Management	Asthma and Bronchitis, ED Rate (Ages 0-17)	1,564	1,145	MHDO Hosp ED
Management	Pneumonia, ED Rate (Ages 0-17)	385	516	MHDO Hosp ED

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		Knox	Maine	Maine Counties Source
ORTHOPEDICS				
	% Diagnosed Arthritis	36%	32%	BRFSS 2007 & 2009
	Ages 65+	65%	59%	BRFSS 2007 & 2009
	Hip Procedures, Hospital Admission Rate	101	93	MHDO Hosp Inpatient
	Ages 65+	393	452	MHDO Hosp Inpatient
	Head Brain Injury, Hospital Admission Rate	76	57	MHDO Hosp Inpatient
	Ages 65+	200	180	MHDO Hosp Inpatient
INFECTIOUS DISEASE				
	HIV/AIDS, Hospital Admissions Rate	0	5.1	MHDO Hosp Inpatient
	Chronic Hepatitis C, Number of Case Reports*	68	1453	ME CDC Infect Disease 2007
	Sexually Transmitted Disease Incidence Rate:			
	Gonorrhea	0	7.3	ME CDC Infect Disease 2008
	Chlamydia	194	197	ME CDC Infect Disease 2008
INTIMATE PARTNER VIOLENCE				
	% Ever physically hurt by Intimate Partner	16%	12%	Household Survey
	% Past yr physical violence or unwanted sex from Intimate Partner	0.8%	1.2%	Household Survey

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* A Hepatitis C case report is defined as the presence of any positive serologic marker for Hepatitis C infection. State cases include reports where no county data was available so Maine total exceeds sum of counties.