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Executive Summary

Health is one of United Way of Kennebec Valley (UWKV’s) three priority areas. UWKV Board and community members collaborated to develop a list of twelve health measures spanning different aspects of health and stages of life, and we gathered data on them as presented in this paper.

Strengths

- Health care providers: Kennebec is among the top 10% of counties nationally for the number of primary care physicians, dentists, and mental health providers per population. However, community research efforts described in the next section identified significant barriers to adequate care and issues with the health care system—like cost, physician training, and referral structures—that prevent many people from getting effective treatment.

- Child immunization: Key County Indicators of Child Health and Well-Being from Maine Children’s Alliance reports that Kennebec has the highest rate in Maine for immunization of children ages 18-35 months.

Areas of Concern

- Infant mortality rates: Kennebec County’s infant mortality rate is above the Maine average. A recent report summarized in this paper provides a thorough review of causes and strategies to address them.

- Middle school and high school mental health: A substantial share of middle and high school youth report symptoms of depression—feeling sad and hopeless enough that it interferes with everyday activities—and even seriously consider suicide. Kennebec County is among the top 10% of U.S. counties in terms of mental health care providers per population, but more should be done to improve awareness, reduce stigma, and link people with appropriate treatment.

- Substance use disorder and overdose deaths: The most dramatic trend in the measures we reviewed is the increase in drug poisoning deaths. The Shared Community Health Needs Assessment process identified several urgent prevention and treatment needs.

Literature Review

Several recent initiatives have examined health issues in Kennebec County. Key findings are presented here, with a focus on community survey and discussion group findings and analysis of critical needs.

Kennebec Valley Community Action Program (KVCAP) conducted a comprehensive community needs assessment in 2018. It used qualitative and quantitative data to analyze the factors that contribute to poverty in the KVCAP region and the needs of low-income residents. For the purposes of the KVCAP report, Kennebec Valley is defined as Kennebec, Lincoln, Sagadahoc, and Somerset Counties. Top health-related findings from its report include:
• Community members consider *Drug/alcohol addiction* to be one of the top five causes of poverty in the region.

**KVCAP Community Needs Assessment Survey Results, 2018**

<table>
<thead>
<tr>
<th>Reasons for Poverty</th>
<th>Percent of Survey Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of jobs with livable wages/benefits</td>
<td>52%</td>
</tr>
<tr>
<td>Basic needs too expensive</td>
<td>36%</td>
</tr>
<tr>
<td>Drug/alcohol addiction</td>
<td>32%</td>
</tr>
<tr>
<td>High housing costs</td>
<td>30%</td>
</tr>
<tr>
<td>Lack of job skills or training</td>
<td>28%</td>
</tr>
</tbody>
</table>

• Kennebec County has a high rate of drug overdoses.

  o In 2014, there were 416 emergency medical service overdose responses per 100,000 population, well above the state average of 392.
  o “It has gotten worse recently,” said one service provider, “and it is more hard drugs that are harder to get off.”
  o Providers noted the challenges faced by individuals trying to access and pay for substance use treatment: “[It’s] impacting families, right down to the heating issues. Families don’t have money for the extra oil when the winter is unusually cold because they are stretching to cover addiction treatment costs.”

• The survey asked respondents to rank their top needs. The top-rated need was jobs with livable wages and benefits. Survey respondents ranked health-related needs second, third, and fifth:

  o Medical care was the second highest need. 29% of respondents sought assistance in the past year, and 18% of them had trouble getting medical care.
  o The third highest need identified in the survey was mental health care. 25% of survey respondents sought mental health care, and 14% had trouble getting care.
  o Assistance with health insurance was the fifth highest need, sought by 20% of survey respondents. 38% of those who sought health insurance had trouble getting it.
  o The top barriers to assistance were that respondents did not qualify (22%), services were too expensive (15%), and lack of transportation (10%).

• Health care accessibility and quality in the region varies based on age. In client interviews and focus groups, there was a divide in ratings of health care quality and accessibility:

  o Older clients on Medicare tend to rate health care services in the area very highly and report that they have not noticed changes in their health care coverage.
  o Younger adults who do not have health benefits through employment report difficulties accessing insurance coverage, finding providers, and paying for needed prescriptions.
  o The main complaint of parents is finding consistent primary care providers, pediatricians, and mental health and dental providers that stay in the area. Parents said that there is too much turnover in health care providers. Comments included, “It’s a concern that my kids are probably never going to be seeing the same doctor” and “This area is a stepping stone for doctors…They learn here, then they move on.”
The Maine Shared Community Health Needs Assessment of 2019 held several forums with residents and identified six top health priorities among participants. Key informants collaborated to identify Kennebec County’s strengths and gaps/needs in each of the six areas. Five areas are discussed in this paper, and one—Social Determinants of Health—is covered in the Financial Stability paper.

Mental Health

“Forum participants cited depression/isolation, stress, and suicidality as major mental health issues. While many said there was a need for behavioral health services in general, they identified inpatient services, counselors and peer-counselors, and psychiatry as specific gaps in the spectrum of care. Although mental health issues affect all individuals, community forum participants identified youth, the lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) community, and older adults…as segments who had unique mental health needs…

Participants identified stigma as a major barrier to care. “Stigma prevents individuals from receiving the help they need, as individuals with a mental health issue may not seek care for fear that they will be shamed or discriminated against. Community members called for more education around mental health issues, for both providers and residents, to reduce the burden and stigma.”

Gaps and needs in mental health identified in the community engagement process include:
- Child psychologists
- Lack of inpatient/crisis beds
- Primary care physicians training
- Peer group counseling/Community services
- Caregivers support

Substance Use

“Opioid misuse was the leading substance use issue discussed in the community forum. Participants discussed the need for more comprehensive, accessible, and affordable services to help those in need, including intensive outpatient services, treatment in primary care, faith-based programs, short and long-term inpatient services, recovery services, and harm reduction (e.g., needle exchange) services.”

Some of the gaps/needs to address substance use in Kennebec County that the community engagement process identified include:
- Intensive outpatient treatment
- Primary care treatment
- Recovery services/coaches
- More inpatient beds
- Education in schools
- Facilities for the uninsured

Physical Activity, Nutrition, and Weight

“Lack of physical fitness and poor nutrition are among the leading risk factors associated with obesity and chronic health issues. Obesity was an issue for youth and adults. Key informants,
including school nurses, suggested several reasons for the increase in obesity among youth, including poor eating habits (unhealthy and not enough food) and increased use of technology and sedentary activities. Participants reported that environmental factors discouraged physical activity and that there were few places to be active (e.g., parks and recreational areas). In a forum with employers, participants noted that there was a lack of support to create healthy working environments.”

Some of the needs to address physical activity in Kennebec County that the community engagement process identified include:

- Transportation to indoor fitness facilities/marks
- Education about foods
- Affordable high-quality food
- Culinary education
- Local free resources for physical activity

**Older Adult Health/Healthy Aging**

“Maine's older population is growing in all parts of the state, and it remains the oldest state in the nation as defined by the age of the median population….Gains in human longevity create an opportunity for active lives well after age 65. As this population grows in size, there is growing interest in wellness in addition to the infrastructure of health services for the older population.

Forum participants and key informants identified a need for education and services to address depression and isolation amongst older adults. Older adults experience loneliness….Limited access to transportation was identified as a key barrier to accessing health care for older adults….The rising cost of care and prescriptions was a key theme in discussions around older adults. The need for affordable and safe housing was another critical issue.”

Key healthy aging needs in Kennebec County were:

- Primary care
- Transportation
- Fall prevention
- Navigators and social support

**Access to Care**

“Whether an individual has health insurance—and the extent to which it helps to pay for access to healthcare services—is critical to overall health and well-being. Access to a usual source of primary care is particularly important since it greatly affects the individual’s ability to receive regular preventive, routine and urgent care and to manage chronic conditions…. 

Community engagement participants discussed the need for comprehensive and affordable health services, specifically primary care, dental care, behavioral health, and urgent care. In primary care, many hoped to see an increase in the number of primary care providers, including advanced nurse practitioners and physician assistants. In a geographic sense, participants noted that health care options were especially limited outside of Augusta and Waterville. Participants identified a need for more health care navigators and financial assistance programs. Even for those with insurance, deductibles, co-pays, and prescription medications are unaffordable and prevent people from seeking care.”
Needs and gaps identified by the community engagement process for access to care in Kennebec County include:

- Health care navigators
- Primary care physicians who can diagnose and treat without excessive use of specialists
- Empowering RNs and PAs to provide primary care
- More doctors, especially primary care providers
- Culturally appropriate care for LGBTQ older adults
- Urgent care centers outside of Augusta and Waterville
- Coordinated social services
HEALTH MEASURES

Premature Death

County Health Rankings from the University of Wisconsin Population Health Institute track premature death with the rate of years of potential life lost before age 75 per 100,000 people (YPLL) for all U.S. counties. Measuring premature mortality, rather than overall mortality, highlights deaths that could have been prevented. YPLL emphasizes deaths of younger persons, whereas statistics that include all mortality are dominated by deaths of the elderly. Rates help us compare data across counties with different population sizes. YPLL is calculated by dividing the number of years of potential life lost for deaths that occurred amongst people under age 75 by the aggregate population under age 75. These figures are based on 2016-2018 data.

Kennebec County had 7,300 years of potential life lost from 2016 to 2018. This falls near the middle of the range across Maine's counties—5,600 to 9,700 YPLL—and just above the Maine average of 7,000. The national average is slightly lower, at 6,900 years.

Health Insurance Coverage

Among residents under age 65 in Kennebec County, fewer than one in ten (9.2%) do not have health insurance. The state average is 10.2% uninsured, and the national average is 10.0%. Only three counties—Cumberland, Sagadahoc, and York—have lower uninsured rates than Kennebec County, and twelve counties have higher rates, with a range across the counties from 8.4% to 16.3% uninsured.

Uninsured rates for different groups of people vary considerably, as shown below.
One evidence-based strategy for addressing the health care needs of uninsured and underinsured people is for local organizations to provide health insurance outreach and support. Because insurance coverage is closely tied with employment, the uninsured tend to be individuals whose employers do not offer affordable coverage, who are self-employed, or who are unemployed (County Health Rankings).

**Providers**

Access to health care requires access to providers as well as financial coverage of the cost. County Health Rankings from the University of Wisconsin Population Health Institute provides estimates of the number of providers compared with population for every U.S. county.

**Primary Care Physicians**

Sufficient availability of primary care physicians is essential for preventive and primary care as well as referrals to appropriate specialty care.

- Kennebec County had 155 primary care physicians in 2017. The ratio of population to primary care providers was **790:1**.
- Statewide, the ratio is 900 people for every primary care physician (900:1).
- Maine county ratios range from 1,690:1 to 600:1.
- Kennebec County and nine others in Maine are in the top 10% of U.S. counties for primary care physicians per population (counties with fewer than 1,030 residents per primary care physician).

**Dentists**

- Kennebec had 99 dentists in 2018, a ratio of **1,230:1** population to dentists.
- The Maine average was 1,550:1. Maine county ratios range from 5,620:1 to 1,000:1.
- Counties like Kennebec with ratios of 1,240:1 or lower of population to dentists are in the top 10%.
Mental Health Providers

- In 2019, there were 595 mental health providers in Kennebec County. The ratio of population to mental health providers was **210:1** both in Kennebec and in Maine.
- The range across other Maine counties was from 580:1 to 140:1.
- As with physicians and dentists, Kennebec County ranks among the top 10% of U.S. counties, having fewer than 290 people per mental health provider.

![Health Care Providers per Population](image)

Infant Mortality Rates

Infant mortality represents the health of the most vulnerable age group. This measure is commonly used to examine global health differences and to understand historic racial inequities in the United States. Infant mortality measures the number of deaths among children less than one year of age, per 1,000 live births.

- From 2012-2016, Kennebec County had **7.1 infant deaths per 1,000 live births**, up from 5.4 in 2007-2011. This was higher than both the Maine average of 6.5 and the national average of 5.9.
- Other Maine county rates ranged from 5.2 in York to 10.0 in Aroostook (Maine SCHNA).
- The County Health Rankings report that there were 58 infant deaths in Kennebec County from 2012-2018, for a rate per 1,000 live births of 7. The Maine rate was down to 6 in those years, and other county rates ranged from 5 in Cumberland to 9 in Aroostook.
- Annual data for Maine (not available at the county geography level) show that, in the past decade, the state infant mortality rate peak was 7.0 in 2013. Maine’s rate had declined steadily to 5.7 in 2017 (the same rate as the national average).

Several Maine agencies and funders collaborated on a 2020 report authored by Qualidigm investigating the drivers of infant mortality. Key findings include:

- Most of the infant deaths in Maine and in the U.S. are due to causes related to being born too early. The earlier the pre-term infant is born, the higher the mortality. Risk factors for premature birth include multiple pregnancy, short pregnancy interval, tobacco use, other
substance use, obesity, and chronic conditions such as diabetes, maternal infections, and stress.
  o Risk factors can be addressed through medical interventions and also through behavioral and social support.
• The second major cause of infant deaths in Maine is congenital birth defects.
• The third major cause is Sudden Infant Death Syndrome/Sudden Unexpected Infant Death.

The report found “fragmentation in the continuum of care, a lack of coordination across components, and barriers to services, particularly in rural areas.” Opportunities for improvement include:
  • Improved access to primary care for women before and between pregnancies
  • More perinatal screenings
  • Enhanced mechanisms to ensure risk-appropriate care
  • Improved access to mental health services
  • New models of care for women with substance use disorder
  • Strategies to ensure that all families who qualify for programs like Public Health Nursing, Maine Families and WIC enroll in these programs
  • New or enhanced strategies to address perinatal labor shortages and access to maternity services in areas where these services have closed, and
  • Increased access to specialists.

**Low Birth Weight**

This measure is the percentage of live births with low birthweight of below 2,500 grams (5.5 pounds). County-level statistics are averaged over multiple years due to small numbers. From 2012-2018:
  • Kennebec County had 7% of live births with low birthweight, equal to the state average.
  • Maine counties ranged from 6% in Sagadahoc to 8% in four counties.
  • The top 10% of U.S. counties have low birthweight rates of 6% or lower (County Health Rankings).

**Child Immunizations**

On-time vaccination helps provide immunity before children are exposed to potentially life-threatening diseases. The Advisory Committee on Immunization Practices recommends routine vaccination by age 24 months against 14 potentially serious illnesses. Vaccination rates nationwide have been high—above 90%—and remain stable but tend to be lower in more rural areas and among uninsured or Medicaid-insured children. A small but increasing proportion of children received no vaccines by age 24 months (U.S. CDC).

Maine KIDS Count reports that in 2019:
  • 80% of Kennebec County children ages 24 to 35 months had received all necessary immunizations.
• The Maine and U.S. averages are both 70% of children fully immunized, ten points lower than in Kennebec County.
• **Kennebec County has the highest immunization rate of any Maine county.** The other county rates range from 35% in Piscataquis to 79% in Aroostook County.

## Youth Mental Health

The Maine Integrated Youth Health Survey (MIYHS) has been conducted in Maine middle and high schools every other year since 2009. The Maine Departments of Education and Health and Human Services collaborate on the MIYHS with the purpose of quantifying the health-related behaviors and attitudes of 5th through 12th graders by direct student survey.

The survey includes several mental health measures. There is not a national comparison for these measures.

### Depression

One survey question asks, “Did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?” In 2019:

- **26% of Kennebec County middle school students** answered yes.
- The Maine average was 25%.
- Other county rates ranged from 21% to 33%. Seven counties had lower rates than Kennebec’s, one was statistically similar, and seven counties had higher rates than Kennebec County.

### Proportion of Maine Middle School Students who Felt Sad or Hopeless, 2019

![Map of Maine showing proportion of students who felt sad or hopeless in 2019](image)

Source: Maine Integrated Youth Health Survey
High school students are more likely to answer yes to the question about feeling sad or hopeless. In 2019:

- **31% of Kennebec County high school students** answered yes. We have school-level data for two of the area’s six high schools:
  - 28% of Cony High School students and
  - 32% of Gardiner Area High School students answered yes to this question.
- The Maine average was one point higher at 32%.
- Maine’s other counties range from 29% to 38%. Only three counties had lower rates than Kennebec’s.
- The Maine Community Health Needs Assessment points out that this proportion has increased significantly, from 21% in 2011 to 31% in 2019.

**Considered Suicide**

Another MIYHS question is, “During the past 12 months, did you ever seriously consider attempting suicide?” In 2019:

- **20% of Kennebec County middle school students** answered yes, the same as the Maine average.
  - 26% of students at Gardiner Regional Middle School answered yes.
- Other county averages ranged from 18% to 26% of high school students who had considered suicide in the past 12 months.

While a higher proportion of high school than middle school students reported feeling sad or hopeless, high school students were less likely than middle school students to say they had seriously considered attempting suicide.

- Of high school students surveyed in 2019, **16% in Kennebec County** answered yes, the same as the Maine average. This includes:
  - 14% of Cony High School students.
  - 18% of Gardiner Area High School students.
- Maine county averages ranged from 14% to 19%, with Kennebec ranking in the middle of the pack.
- The proportion of high school students in Kennebec County who have seriously considered suicide has increased from 12% in 2011 to 16% in 2019.

**Adverse Childhood Experiences (ACEs)**

In recent years there has been increasing concern about the effects of adverse childhood experiences (ACEs), and the prevalence of these harmful events for some groups of children. The compound effects of multiple adverse experiences especially have lasting negative effects. In the MIYHS, adverse childhood experiences include:

- Parents got divorced or separated
- A parent or guardian died
- A parent or guardian was in jail or prison
- Lived with an adult who had a mental illness
• Parent or another adult in the house often swore at you, insulted you, put you down or humiliated you
• Being physically hurt by an adult in the home.

In 2019, the MIYHS began measuring ACEs among high school students. It reports on the proportion of students who have experienced four or more ACEs in their lives.
• **22% of Kennebec County high schoolers** have experienced four or more ACEs.
• The Maine average is just one point lower, 21%.
• County averages range from a low of 18% in Cumberland County to a high of 32% in Waldo County. Kennebec is close to the middle of the pack.

**Adult Mental Health**

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based telephone survey conducted annually of a representative sample of adults in every state. Self-reported health status is a widely used measure of people's health-related quality of life. Reports of days when mental health was not good is a reliable estimate of recent health.

For this measure, respondents were asked to estimate the number of mentally unhealthy days they experienced in the past month. The survey question is, “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?”

In 2017:
• **Kennebec County adults experienced 4.1 mentally unhealthy days** in the past month, on average.
• The Maine average was slightly higher at 4.5 days.
• Averages in Maine’s counties did not vary much, ranging from 3.8 to 4.6 days. Kennebec County ranked near the middle of the pack.
• Counties with the best adult mental health (top 10 percent nationally) averaged no more than 3.4 mentally unhealthy days per month.

**Domestic Violence**

Domestic violence is the willful intimidation, physical assault, battery, sexual assault, and other abusive behavior perpetrated by one intimate partner against another. It includes physical violence, sexual violence, threats, and emotional abuse (National Coalition Against Domestic Violence).

The Maine Department of Public Safety reports on domestic assaults, one facet of domestic violence. In 2019, 34% of reported assaults in Maine met the definition of domestic assault—they occurred between family or household members.
• There were 3,689 reported domestic assaults in the state in 2019, or one about every 2½ hours. The 2018 statewide figure was almost the same: 3,699 domestic assaults.
• 55% of domestic assaults were male assaults on females, 18% were female assaults on males, 9% were parent assaults on children, 8% were children assaulting parents, and 9% were other types of assaults.

A 2017 report based on the National Crime Victimization Survey estimates that 56% of domestic violence victimizations are reported to police (Bureau of Justice Statistics).

In Kennebec County, the number of reported domestic assaults increased by 17% from 2018 to 2019, from 367 to 428 assaults. Five other Maine counties—Androscoggin, Franklin, Piscataquis, Sagadahoc, and Somerset—saw increases in reported domestic assaults above 10%.

In 2019, the National Network to End Domestic Violence conducted a one-day census of domestic violence programs across the U.S. It surveyed nine Maine organizations and found that:
• 223 adult and child victims of domestic violence found refuge in emergency shelters and transitional housing that day.
• 320 victims received other services including counseling, legal advocacy, and children’s support.
• 63 victims requested services that the organizations did not have the resources to provide.
• Advocates provided 20 trainings for 123 individuals on domestic violence prevention and early intervention.

**Overdose Deaths**

Drug overdose deaths are a major cause of premature death. The United States is experiencing an epidemic of drug overdose deaths. Since 2000, the rate of drug overdose deaths has increased by 137% nationwide, and there has been a 200% increase in deaths involving opioids, including opioid pain relievers and heroin (County Health Rankings).

This measure tracks the number of drug poisoning deaths per 100,000 population. For Maine, Centers for Disease Control and Prevention (CDC) annual data show a troubling increase in overdose deaths—over 200%—since 2012. County level data are averaged over multiple years due to small numbers, and an annual trendline is not available. Three multiyear estimates for Kennebec County also show a marked increase:
• From 2009-2011, there were 12 drug poisoning deaths per 100,000 population in Kennebec County. This increased to 21 in 2014-2016 and 35 in 2016-2018.
• The state trend is similar, increasing from 11 deaths in 2012 to 34 in 2017.

Drug Poisoning Deaths per 100,000 Population: Maine

Wellness and Prevention

Obesity

Excess body weight increases the risks of some of the chronic diseases—like diabetes, heart disease, stroke, and asthma—that are contributors to premature death. Obesity is defined as a body mass index of 30 or greater. According to County Health Rankings, in 2016:
• 34% of Kennebec County adults were obese.
• This is higher than the Maine average of 30% and the national average of 29% of adults who are obese.
• Obesity rates in Maine's counties range significantly, from 23% in Cumberland to 37% obese adults in Piscataquis County. Only two counties have adult obesity rates higher than Kennebec’s, and four other counties have the same rate of 34%.

Wellness and Prevention Measures

Source: County Health Rankings
Access to Exercise Opportunities

Increased physical activity is associated with improved health, including lower risks of type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, premature mortality, and obesity. Individuals who live closer to sidewalks, parks, and gyms are more likely to exercise. This measure is the percentage of individuals who live reasonably close to a location for physical activity. Locations for physical activity are defined as parks or recreational facilities. Individuals are considered to have access to exercise opportunities if they: 1) reside in a census block that is within a half mile of a park, 2) reside in an urban census block that is within one mile of a recreational facility, or 3) reside in a rural census block that is within three miles of a recreational facility.

In 2019:

- **77% of Kennebec County residents had access to exercise opportunities**, outperforming the state average of 70%. The national average of 84% of residents with access to exercise opportunities is significantly higher.
- Maine counties varied from 41% with access to exercise opportunities in Oxford to 84% in Aroostook and Cumberland Counties.
- No Maine county is in the top 10% nationally. In top-ranking counties, at least 91% of residents have access to exercise opportunities.
Sources


County Health Rankings


U.S. Centers for Disease Control and Prevention,
