HEALTHY AGING DATA REPORT
Highlights from New Hampshire, 2019

RESEARCH AND ANALYSIS BY

UMASS BOSTON
Gerontology Institute
John W. McCormack
Graduate School of
Policy and Global Studies

FUNDER

TUFTS Health Plan FOUNDATION

A Message from the Funder and Principal Investigator

We are living in a remarkable time. People are living longer. Many older people live healthy and happy lives, but there remain opportunities to make our communities better places to grow up and grow old.

The 2019 New Hampshire *Healthy Aging Data Report* serves as a roadmap, helping to identify strengths and needs in communities across the state. The data offer a clearer picture of older people's health—and at a finer level of geographic detail—than has ever before been compiled. Nationwide, only New Hampshire, Massachusetts, and Rhode Island have such comprehensive data on healthy aging.

We are committed to creating communities that work for people of all ages, recognizing that each state is unique and each community must chart its own course towards better health, honoring its people, history, and culture.

We have learned some best practices to guide those engaging in this work. First, don't go it alone. Connect with those leading the way at the state level or in your local community. Second, consider starting small, with winnable battles to build momentum. As you make progress, you can shift to more challenging issues and engage a wider circle of collaborators. Communities that work for the oldest and youngest people tend to work well for everyone. Third, celebrate successes. As you make progress, or engage more partners in your work, remember to recognize the positive impact you are making.

Improving community health is possible. We hope you use this Highlights Report and the full online database to inform your work and connect to the many organizations working to make New Hampshire communities the healthiest in the nation. Use the data to set priorities, create partnerships, allocate resources, and focus services. Access the report at HealthyAgingDataReports.org.

Thank you for your interest in this important work.

Thomas A. Croswell
Chief Executive Officer
Tufts Health Plan
Board of Directors, Tufts Health Plan Foundation

Elizabeth Dugan, PhD
Principal Investigator
Gerontology Institute
University of Massachusetts Boston

TABLE OF CONTENTS

ABOUT THE REPORT

The 2019 New Hampshire Healthy Aging Data Report is an easy-to-use online resource created by researchers at the Gerontology Institute of the John W. McCormack Graduate School of Policy and Global Studies at the University of Massachusetts Boston working in partnership with the New Hampshire Alliance for Healthy Aging.

Our goal is to provide data that adds to knowledge and understanding on what aging looks like in New Hampshire, which, in turn, can lead to the creation of more age-friendly communities.

This report covers 244 NH communities—with more than 166 health indicators—to help advocates and leaders understand more about what is going on with older people throughout the state. The data explore issues such as the distribution of disease or disability, the impact of gender on health disparities, and how population health varies by zip code. This new tool assesses the health of New Hampshire communities and suggests action steps to improve health in areas currently scoring below state averages.

The report presents data in a variety of formats:

- 244 comprehensive community profiles for every city and town in New Hampshire (plus neighborhoods in Nashua and Manchester) to inform policy, planning, and practice
- 164 state maps showing indicator rates in each community
- 164 lists with indicator rates for each community. The lists are alphabetical and ranked for each indicator
- 18 interactive maps showing the distribution of key chronic disease indicators
- A one-page infographic
- Technical documentation about data sources, measurement, and analytical methods

This report was funded by Tufts Health Plan Foundation.

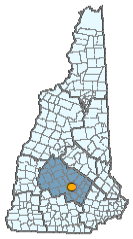
New Hampshire Community Profile

2019 NEW HAMPSHIRE HEALTHY AGING COMMUNITY PROFILE

TUFTS Health Plan FOUNDATION

Concord (Merrimack)

Concord is the capital city of New Hampshire, located in Merrimack County and home to the gold-domed State House. There are 6,387 residents age 65 or older. Compared to state average rates, older residents fared better on some healthy aging indicators with lower rates of ischemic heart disease, leukemias and lymphomas, liver diseases. However, they had higher rates of hip fracture, obesity, high cholesterol, depression, anxiety/bipolar/personality disorders, schizophrenia, substance/tobacco use disorders, Alzheimer's disease, stroke, peripheral vascular disease, arthritis, osteoporosis, breast cancer, benign prostatic hyperplasia, hypothyroidism, chronic kidney disease, fibromyalgia, migraine, epilepsy, traumatic brain injury, glaucoma, cataracts, ulcers, hearing/visual/mobility impairments. They are more likely to take the health promotion step of having a regular doctor. Community resources to support healthy aging include 3 senior centers, 163 primary care providers, a hospital, and 4 nursing homes within 5 miles, 8 home health agencies, a memory cafe, a dementia support group, 3 assisted living sites, 3 universities or community colleges, 2 public libraries, a YMCA, and access to broadband.



POPULATION CHARACTERISTICS	BETTER / WORSE STATE RATE[1]	COMMUNITY ESTIMATE	STATE ESTIMATE
Total population all ages		42,634	1,327,503
Population 60 years or older as % of total population		21.0%	22.7%
Total population 60 years or older		8,970	301,630
Population 65 years or older as % of total population		15.0%	15.8%
Total population 65 years or older		6,387	210,385
% 65-74 years		51.2%	58.5%
% 75-84 years		26.9%	28.6%
% 85 years or older		21.9%	12.9%
Gender (65+ population)			
% female		59.7%	54.7%
Race/Ethnicity (65+ population)			
% White		97.1%	97.7%
% African American		0.4%	0.5%
% Asian		0.9%	0.9%
% Other		1.7%	0.9%
% Hispanic/Latino		0.5%	0.9%
Marital Status (65+ population)			
% married		43.0%	58.5%
% divorced/separated		21.4%	14.0%
% widowed		28.0%	22.9%
% never married		7.6%	4.6%
Education (65+ population)			
% with less than high school education		10.0%	12.3%
% with high school or some college		57.5%	57.1%
% with college degree		32.5%	30.6%
% of 65+ population living alone		38.5%	26.1%
% of 65+ population who speak only English at home		96.4%	91.3%
% of 65+ population who are veterans of military service		25.9%	24.8%
Age-sex adjusted 1-year mortality rate	W	4.8%	4.1%

Concord (Merrimack) PAGE 1

Each Community Profile provides detailed population characteristics as well as information about community engagement, access to care, wellness and prevention, nutrition/diet, mental health, chronic disease, living with disability, and safety.

GROWING OLDER IN NEW HAMPSHIRE

We are all aging. In New Hampshire about 1 in every 5 people is age 60 or older. That is about 301,000 residents, who represent a valuable state asset. The data presented in this report give advocates and decision makers the "why" needed to create new opportunities for engaging older residents and other key stakeholders. The gains in human longevity mean older people have more chances for leading high-quality, fulfilling lives. Most of us want more than extra years of life. We want healthier years of life.

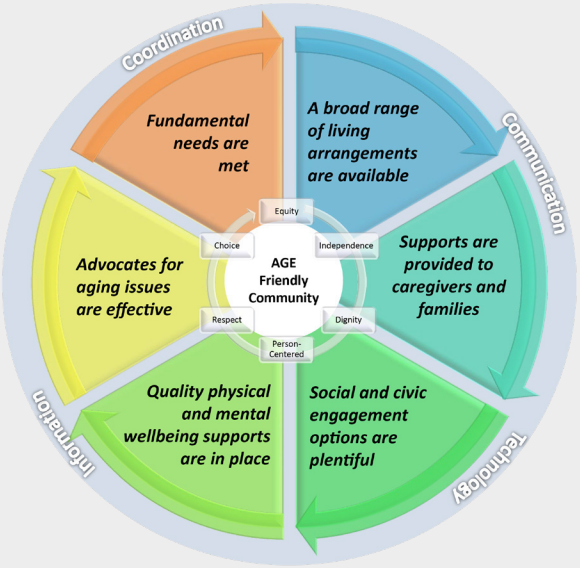
Communities that nurture healthy aging support older people and also enrich the lives of everyone else in the community. One example of this is how adding curb cuts to sidewalks or walking paths to make navigation easy for those using a walker or a wheelchair, also benefits young parents pushing baby strollers.

In national studies, the health of older people in New Hampshire compares well to other states. However, this hides significant variations and disparities within the state, which this report explores. Put simply, where you live matters to your health.

Alliance Works to Support Healthy Aging in New Hampshire

Momentum is building in New Hampshire to create age-friendly communities. Funded by the Endowment for Health, the NH Alliance for Healthy Aging (NHAHA) aims to create communities that advance culture, policies, and services for supporting older adults and their families through a wide range of choices for health, independence, and dignity. NHAHA recognizes strong communities are the backbone of healthy aging. The graphic below shows the framework guiding the effort to make New Hampshire communities work for people of all ages.

NH Alliance for Healthy Aging



NHAHA
NEW HAMPSHIRE ALLIANCE FOR HEALTHY AGING

www.nhaha.info

HEALTH INDICATORS REPORTED IN DETAILED COMMUNITY PROFILES

The detailed Community Profiles include 166 healthy aging indicators for every New Hampshire city and town, and refine our understanding of community health.

Population Characteristics

It is important to understand the demographic characteristics of a community. Reported population characteristics include: total population, population age 60 and older, population age 65 and older, gender, race, marital status, education, living alone, percentage who speak only English at home, percentage of military service veterans, mortality, and geographic migration in the past year.

Primary data source: the U.S. Census Bureau (American Community Survey 2011–2016 and the U.S. Census 2010).

Wellness and Preventive Health

Many activities can contribute to wellness. Wellness and prevention indicators include measures of physical activity, sleep, falls, health screenings, vaccinations, smoking, and oral health. Summary measures of preventive health behaviors are reported, as is HIV screening and whether community residents live in a home where smoking is prohibited.

Primary data source: the Behavioral Risk Factor Surveillance System 2011–2016.

Nutrition/Diet

These indicators reflect the impact of adequate nutrition on health. A healthy diet protects against malnutrition and helps maintain a healthy weight. Information on fruit and vegetable consumption, obesity, high cholesterol, excessive drinking, and poor access to supermarkets (i.e., "food deserts") are reported.

Data sources: the Behavioral Risk Factor Surveillance System 2-11-2016, the Master Beneficiary Summary File from the Centers for Medicare & Medicaid Services (CMS) 2014–2015, and the U.S. Department of Agriculture Food Atlas 2017.

Behavioral Health

Mental health is an often-overlooked component of well-being. We report 10 measures that impact mental health: the prevalence of physician-diagnosed depression, anxiety, bipolar disorders, post-traumatic stress disorder (PTSD), schizophrenia and personality disorders, self-reported poor mental health, substance use disorders, tobacco use disorders, and opioid-related deaths.

Data sources: the Behavioral Risk Factor Surveillance System 2014–2016, the Master Beneficiary Summary File from CMS 2014–2015, and the CDC Wonder website 2014–2016.

Chronic Disease

A chronic disease is any condition whose symptoms persist for a year or more and require ongoing medical treatment and/or interfere with daily activities, according to the Centers for Disease Control and Prevention (CDC). Thirty-five chronic disease indicators are reported: Alzheimer's disease or related dementias, anemia, asthma, atrial fibrillation, autism, benign prostatic hyperplasia, cancer (lung, colon, breast, endometrial,

prostate), cataract, chronic kidney disease, chronic obstructive pulmonary disease, congestive heart failure, diabetes, epilepsy, fibromyalgia/chronic pain and fatigue, glaucoma, heart attack, HIV/AIDS, hypothyroidism, hypertension, ischemic heart disease, leukemias, liver disease, migraine, osteoarthritis/rheumatoid arthritis, osteoporosis, peripheral vascular disease, pressure ulcer, stroke, traumatic brain injury, and multiple comorbidities (4+) chronic conditions.

Data source: the Master Beneficiary Summary File from CMS 2014–2015.

Disability

According to the National Institutes of Health, a disability is any condition that impairs a person's ability to perform daily activities. Rates of deafness, blindness, self-care, and mobility impairments are reported. Both self-reported and clinically determined rates are reported.

Data sources: the Master Beneficiary Summary File from CMS 2014–2015 for the clinical measures, and the American Community Survey 2012–2016 for the self-reported disability.

Access to Care

For older adults, care can come from many different sources: the health care system, the aging services system and informal providers (e.g., family). Indicators include: managed care enrollees; dual eligibility for Medicare and Medicaid, primary care access, not seeing a doctor when needed due to cost, access to nearby primary care providers, hospitals, nursing homes, home health agencies, community health centers, adult day health centers, memory cafés, and dementia support groups.

Data sources: the Behavioral Risk Factor Surveillance System 2014–2016, the Master Beneficiary Summary File from CMS 2014–2015, Medicare.gov 2018, the NH Division of Public Health Services 2018, NH DHHS Health Facilities Administration 2018, memorycaredirectory.com 2018, and the Alzheimer's Association 2018.

Service Utilization

Indicators describing how people interact with the health care community and make use of services can inform health system management and policy. The number of physician visits per year, emergency room visits, Medicare Part D monthly prescription refills, home health visits, durable medical equipment claims, inpatient hospital stays, inpatient hospital readmissions, skilled nursing home Medicare beds per capita, and the prevalence of older people receiving Medicaid long-term services and supports are reported.

Data sources: the Master Beneficiary Summary File from CMS 2014–2015 and Medicare Nursing Home Compare 2018.

Community and Civic Engagement

The local environment and an older person's engagement with it are important elements of health and well-being. We have included a range of indicators to measure those factors. They include age-friendly efforts, senior center access, air pollution, grandparents raising grandchildren, assisted living sites, vacant homes, universities, public libraries, YMCAs, access to broadband internet service, internet use, and voter participation rates.

Data sources: AARP 2018; the Senior Activity Center, Portsmouth NH 2018, U.S. Environmental Protection Agency Air Compare 2016; assistedlivingfacilities.org 2017, the American Community Survey 2012–2016, the NH Department of Business and Economic Affairs Division of Travel and Tourism Development 2018, the Institute of Museum and Library Services 2018, NH YMCA 2018, the Federal Communications Commission 2016, BRFSS 2014–2016; and the NH Secretary of State 2018.

Safety and Transportation

Living in safe communities with easy access to transportation is essential to promoting health and enhancing quality of life. Violent crime rate, homicide rate and property crime rate are reported, as is the number of firearm fatalities. Transportation indicators include the percentage of older adults who own a vehicle, the rate of seat belt usage, and automobile crash rates.

Data sources: the U.S. Department of Justice Federal Bureau of Investigation 2017, the County Health Rankings 2018, the Behavioral Risk Factor Surveillance System 2011–2016), the American Community Survey 2012–2016, and the National Highway Traffic Safety Administration 2011–2015.

Economic and Housing Status

Economic and housing status can serve as indicators of overall health care accessibility. Such indicators include household income and home ownership/ mortgage status, as well as the proportion of the older adult population who live below the poverty line, receive food stamps, and spend more than 35% of household income on housing (ownership or rental). A cost of living index reports on the annual income needed for four scenarios (single homeowner in good health without mortgage; single renter in good health, couple homeowners in good health without mortgage, and couple-renters in good health).

Data sources: the American Community Survey 2012–2016, and the Center for Social and Demographic Research on Aging at the University of Massachusetts Boston 2017.

COMMUNITIES WITH RATES BETTER OR WORSE THAN THE STATE AVERAGE

For most indicators, the reported community and state values are estimates calculated with sample data. Thus, it is possible that some of the differences between state and community estimates may be due to chance associated with population sampling. We use the terms "better" and "worse" to highlight differences between community and state estimates that we are confident are not due to chance. "Better" is used when a value has positive implications for the health of older residents. "Worse" is used when a value has negative implications for the health of older people. When the implication is unclear we use an asterisk. (Differences noted in the tables or text are all statistically significant at the 95% confidence level.)

The terms better or worse do not indicate any value judgment on the part of the researchers. After careful and deliberate conversations with a range of stakeholders, we believe better and worse is the simplest way to communicate what the rates mean.

TABLE 1. NUMBER OF HEALTH INDICATORS BETTER AND WORSE THAN THE STATE AVERAGE

	Health Indicators Better than State Average	Health Indicators Worse than State Average
MOST INDICATORS BETTER THAN STATE AVERAGE		
Lyme, Orford, Piermont	34	1
Moultonborough, Sandwich	34	1
Amherst	33	1
Grantham	32	2
Londonderry	31	2
Bartlett, Hadley's Purchase, Jackson, Hart's Location, Hale's Location	31	2
Newfields, Stratham	28	0
Alton	26	0
Gilmanton	26	0
Danbury, Hill, Sanbornton	26	3
MOST INDICATORS WORSE THAN STATE AVERAGE		
Manchester (includes all Manchester neighborhoods)	1	45
Manchester: West	0	38
Central Manchester	2	38
Nashua: Zip 03060	0	35
Boscawen, Webster, Concord	4	34
Dover	4	30
Brentwood, Exeter, Kensington	8	30
Manchester: South	0	29
Nashua	2	29
Rochester	4	27

Table 1 identifies 10 New Hampshire communities with the most health indicators better than the state average, and 10 communities with the most indicators worse than the state average. This snapshot underscores the wide variations across the state. (Note that some rural communities are grouped together for some analyses and are reported together on the same line. See the Technical Report for details.)

Understanding how communities compare to state averages helps us identify what communities are doing well and consider what could be done to help communities that fall below the state average. We may be able to find approaches that can be replicated in areas of unmet, or poorly met, health care or social service needs.

Having accurate, local data focused exclusively on older people is the foundation on which further progress can be made to create truly age-friendly communities in New Hampshire.

Table 2 shows the communities with the best and worst rates on selected indicators.

TABLE 2. BEST AND WORST RATES ON SELECT INDICATORS

	Best Rates	Worst Rates
Alzheimer's disease & related dementias	Pittsburg	Westmoreland
	Clarksville	Keene, Roxbury
	Henniker	Sullivan, Surry
Ambulatory difficulty	Waterville Valley	Loudon
	Hale's Location	Plymouth
	Gilmanton	Danbury
Any physical activity in past month	Brentwood, Exeter, Hampton	Shelburne, Milan,
	Kensington, Newfields,	Gorham, Errol
	North Hampton, Stratham	Dummer, Berlin
Asthma	Gilmanton	Central Manchester
	New Castle	Manchester: West
	Hampton Falls	Sandown
Blindness or visual impairment	Shelburne, Milan	Central Manchester
	Gorham, Errol	Nashua: Zip 03064
	Dummer, Berlin	Manchester: West
CDC preventive screenings	Atkinson/Chester, Danville	Shelburne, Milan
	Derry, Hampstead	Gorham, Errol
	Plaistow, Sandown	Dummer, Berlin
Chronic kidney disease	Sugar Hill	Central Manchester
	Franconia	Salem
	Easton	Manchester: West

TABLE 2. BEST AND WORST RATES ON SELECT INDICATORS *(CONTINUED)*		
	Best Rates	**Worst Rates**
Deafness or hearing impairment	New Ipswich	Hanover
	Mason	Peterborough
	Greenville	Sharon
Depression	Milan	Central Manchester
	Errol	Goffstown
	Dummer	Boscawen, Concord, Webster
Diabetes	Hanover	Central Manchester
	Hancock	Northumberland
	New London	Stark
Heart attack	New Boston	Lancaster
	Grantham	Northumberland
	Hanover	Stark
Hip fracture	Plaistow	Dover
	Atkinson	Boscawen
	Rindge, New Ipswich, Jaffrey, Fitzwilliam	Concord, Webster
Hypertension	Hancock	Clarksville
	Piermont	Pittsburg
	Orford, Lyme	Salem
Ischemic heart disease	Hancock	Seabrook
	Piermont	Central Manchester
	Orford, Lyme	Manchester: West
Mortality	Strafford	Westmoreland
	Woodstock	Farmington
	Thornton	Central Manchester
Multiple comorbidities (4+)	Hancock	Central Manchester
	Sugar Hill, Franconia	Manchester: West
	Easton	Manchester: South
Obesity	New London	Farmington
	Waterville Valley	Chester
	Lincoln	Sandown
Personality disorders	Strafford, New Durham	Central Manchester
	Milton, Middleton	Boscawen
	Farmington, Barrington	Concord, Webster
Schizophrenia & other psychotic disorders	Tuftonboro	Central Manchester
	Tamworth, Sandwich	Dover
	Moultonborough	Boscawen, Concord, Webster
Stroke	Ellsworth, Campton	Manchester: West
	Monroe, Bath	Franklin
	New Ipswich	Berlin

STATEWIDE CHANGES IN NEW HAMPSHIRE

We compared state-level data for 37 chronic disease indicators in older adults to detect any changes in this time period (2013–2015). The data show evidence of progress in a few categories of health and the utilization of care. But there were many more measures statewide that worsened.

The Good News

The rate of ischemic heart disease improved. Cardiovascular health has implications for many aspects of healthy aging and functional status.

The Bad News

Statewide rates for nine chronic health conditions increased: arthritis, breast cancer, cataracts, chronic kidney disease, depression, endometrial cancer, glaucoma, high cholesterol, and hypothyroidism.

News about Health Services Utilization

There were lower rates for admissions to skilled nursing facilities, physician office visits, and the use of durable medical equipment. However, rates were higher for the frequency of trips to medical emergency departments.

CHANGES AT THE COMMUNITY LEVEL IN NEW HAMPSHIRE

While the changes above represent statewide rates, we wanted to understand if there were similar patterns of change at the local level over two years (2013–2015).

Did Indicators Improve in Any Communities?

Very few of the chronic disease or health service utilization measures improved in individual communities. Utilization rates for physician visits decreased in five communities, and skilled nursing facility stays decreased in four communities.

Did Indicators Worsen in Any Communities?

Arthritis prevalence rates worsened in 15 of 152 New Hampshire communities, and emergency room visits increased in nine communities. In eight communities, the number of older people with no chronic diseases declined. Depression (four communities), cataracts (five communities), inpatient hospital stays (four communities), and skilled nursing facility stays (four communities) worsened during the two-year period.

Where Did Indicators Improve?

Relatively few New Hampshire communities experienced significant improvements in health measures for older people. The Kensington-Exeter-Brentwood area showed improvement in three categories. Dover and the Winchester-Swanzey-Richmond areas each improved in two health indicators.

Where Did Indicators Show Most Challenges?

More communities had worse rates on at least one health condition, but few experienced setbacks in multiple categories. The neighborhoods in the

southern part of Manchester had five indicators worsen, the highest number in New Hampshire. Berlin-Success, Hudson, Nashua zip code 03060, Portsmouth and Salem each experienced three worsening indictors. Many of the state communities that experienced declines in two or three health categories were in the greater Manchester and Nashua areas, highlighting urban challenges to healthy aging.

GENDER DIFFERENCES IN HEALTHY AGING

We explored gender differences in healthy aging in New Hampshire. Recognizing important gender differences can make tailored outreach, education, and prevention efforts more strategic and effective.

Tables 3–5 highlight the differences we noted (all differences significant at $p < 0.05$). The majority of indicators show conditions that are more common among women compared to men. The last column reflects the extent of the gender differences, which may not be evident when just viewing the rate differences.

Women age 65 and older had nearly eight times the risk for osteoporosis compared to men. Overall, women had higher rates of chronic conditions and higher health service utilization, which suggests their conditions are being monitored more consistently.

Women also have higher rates for several painful conditions (e.g., arthritis, fibromyalgia, migraine, and multiple comorbidities) and brain disorders or disease (Alzheimer's disease and related dementias, anxiety, bipolar disorders, depression, PTSD, and schizophrenia). Our analyses indicate women age 65 and older were nearly twice as likely as men to have an anxiety disorder, and nearly 70% more likely to report feeling depressed. However, women were more likely than men to have positive health behaviors, such as wearing seatbelts, getting the pneumonia vaccine, and eating a healthy diet.

TABLE 3. GENDER DIFFERENCES FOR HEALTH CONDITIONS

Conditions for which Women age 65+ have Worse Rates than Men	Female	Male	Rate Difference F–M	Relative Rates F/M
Osteoporosis	29.1%	3.7%	25.4%	7.86
Hypothyroidism	29.3%	10.8%	18.5%	2.71
Depression	35.4%	21.0%	14.4%	1.69
Anxiety disorders	28.5%	14.3%	14.1%	1.99
Osteoarthritis/rheumatoid arthritis	55.1%	42.0%	13.1%	1.31
Cataract	67.1%	54.3%	12.8%	1.24
Fibromyalgia, chronic pain or fatigue	22.2%	14.4%	7.7%	1.54
Fall-related injury within last 12 months	13.1%	7.3%	5.7%	1.79
Glaucoma	25.3%	20.1%	5.2%	1.26

TABLE 3. GENDER DIFFERENCES FOR HEALTH CONDITIONS *(CONTINUED)*

Conditions for which Women age 65+ have Worse Rates than Men	Female	Male	Rate Difference F–M	Relative Rates F/M
Asthma	15.3%	10.4%	5.0%	1.47
4+ chronic conditions	56.5%	52.0%	4.5%	1.09
Alzheimer's disease or related dementias	13.8%	10.0%	3.9%	1.38
Anemia	39.1%	35.3%	3.8%	1.11
Migraine and other chronic headache	5.7%	2.2%	3.5%	2.59
Hip fracture	4.5%	1.8%	2.8%	2.50
15+ Days poor mental health last month	8.0%	5.7%	2.3%	1.40
Schizophrenia or other psychotic disorders	5.8%	3.9%	1.8%	1.49
Clinically diagnosed obesity	17.5%	15.9%	1.6%	1.10
Bipolar disorders	3.6%	2.4%	1.3%	1.50
Chronic obstructive pulmonary disease	21.1%	19.9%	1.3%	1.06
High cholesterol	72.8%	71.6%	1.2%	1.02
Pressure ulcer or chronic ulcer	7.4%	6.8%	0.7%	1.09
Personality disorders	1.3%	0.7%	0.6%	1.86
Liver diseases	7.1%	6.6%	0.5%	1.08
Post-traumatic stress disorder	1.6%	1.2%	0.4%	1.33
Blindness or visual impairment	1.0%	0.7%	0.3%	1.43
Conditions for which Men Age 65+ have Worse Rates than Women	**Female**	**Male**	**Rate Difference M–F**	**Relative Rate M/F**
HIV/AIDS	0.03%	0.08%	0.05%	2.67
Autism spectrum disorders	0.02%	0.05%	0.03%	2.50
Substance use disorders (Drug use or alcohol abuse)	4.4%	6.9%	2.5%	1.57
Ever had a heart attack	3.6%	5.5%	1.9%	1.53
Ischemic heart disease	29.6%	39.9%	10.3%	1.35
Atrial fibrillation	12.5%	16.7%	4.2%	1.34
Leukemias and lymphomas	1.8%	2.2%	0.5%	1.22
Diabetes	25.9%	30.9%	5.0%	1.19
Tobacco use disorders	9.6%	11.3%	1.6%	1.18
Chronic kidney disease	20.7%	24.2%	3.5%	1.17
Peripheral vascular disease	14.3%	15.2%	0.9%	1.06
Congestive heart failure	17.4%	18.2%	0.9%	1.05

There are also gender differences in terms of health services access and utilization as summarized in Table 4. Older women were more than twice as likely to be receiving Medicaid long-term services and supports and to be dually eligible for Medicare and Medicaid. Older men had higher rates for hospital readmissions and hospital stays per year.

While the overall rates are quite low, older men have rates three times higher than older women for autism spectrum disorders and HIV/AIDS, as summarized in Table 5. Older men also have higher rates for serious conditions related to cardiovascular health (heart attack, ischemic heart disease, congestive heart failure, atrial fibrillation and peripheral vascular disease). Older men also had worse rates on substance use disorders and tobacco use disorders. Men had higher rates of physical activity and some health screenings.

TABLE 4. GENDER DIFFERENCES FOR ACCESS AND UTILIZATION

Women have Higher Rates than Men	Female	Male	Rate Difference F–M	Relative Rates F/M
% 65+ getting medicaid long-term services and supports	4.9%	2.2%	2.8%	2.23
% Dually eligible for medicare and medicaid	9.6%	5.0%	4.6%	1.92
Home health visits per year	2.8	2.1	0.7	1.33
# Skilled nursing facility stays/1000 people 65+ per year	86	64	22	1.34
Physician visits per year	6.5	6.1	0.4	1.07
% Medicare managed care enrollees	8.1%	7.7%	0.4%	1.05
Part D monthly prescription fills per person per year	49.8	48.2	1.6	1.03
Emergency room visits/1000 people 65+ per year	583	559	25	1.04
Men have Higher Rates than Women	**Female**	**Male**	**Rate Difference M–F**	**Relative Rate M/F**
Medicare inpatient hospital readmissions (as % of Admissions)	14.9%	16.9%	2.0%	1.13
Durable medical equipment claims per year	1.9	2.1	0.2	1.11
Inpatient hospital stays/1000 people 65+ years per year	232	244	12	1.05

TABLE 5. GENDER DIFFERENCES FOR HEALTH BEHAVIORS				
Behaviors for which Women age have Better Rates than Men	Female	Male	Rate Difference F–M	Relative Rates F/M
% 60+ with 5+ servings of fruit or vegetables per day	25.7%	14.0%	11.7%	1.84
% 60+ who always drive wearing a seatbelt	81.1%	72.4%	8.7%	1.12
% 65+ with pneumonia vaccine	79.6%	75.6%	4.0%	1.05
Behaviors for which Men have Better Rates than Women	Female	Male	Rate Difference M–F	Relative Rates M/F
% 60+ with HIV test	11.1%	16.2%	5.1%	1.46
% 65+ with 0 chronic conditions	8.7%	12.1%	3.4%	1.39
% 60+ met CDC preventive health screening goals	37.9%	43.3%	5.3%	1.14
% 60+ met CDC guidelines for aerobic physical activity	55.2%	62.4%	7.1%	1.13
% 60+ with colorectal cancer screening	74.5%	80.1%	5.6%	1.08
% 60+ with any physical activity within last month	72.6%	76.7%	4.1%	1.06

POPULATION HEALTH MEASURES

Information about individual indicators or single communities is valuable. Equally important is "big picture" data for policy makers and others working at the state level. Population health refers to the distribution of health outcomes within a population. It includes all the personal, social, economic, and environmental factors that influence health outcomes and the policies that affect those factors. Building on analyses we developed for Rhode Island and Massachusetts, we created a measure of healthy aging in New Hampshire that statistically distilled information from 61 chronic disease, disability, and health services utilization indicators.

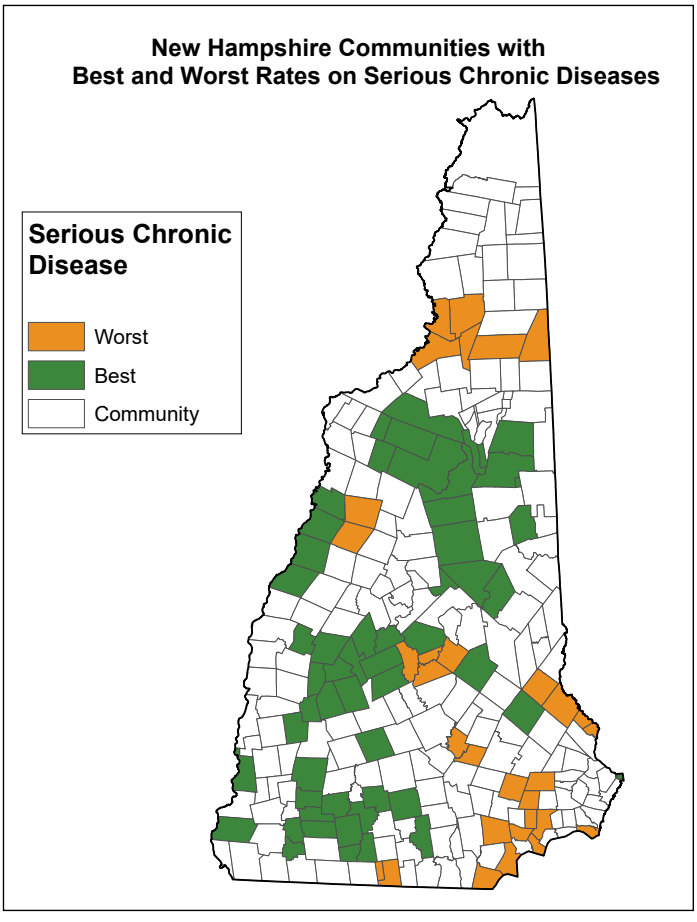
The analyses revealed three key dimensions of population health, each explored in detail below:

- Serious and complex chronic diseases
- Physical and mental disability
- Indolent diseases

Serious and Complex Chronic Diseases

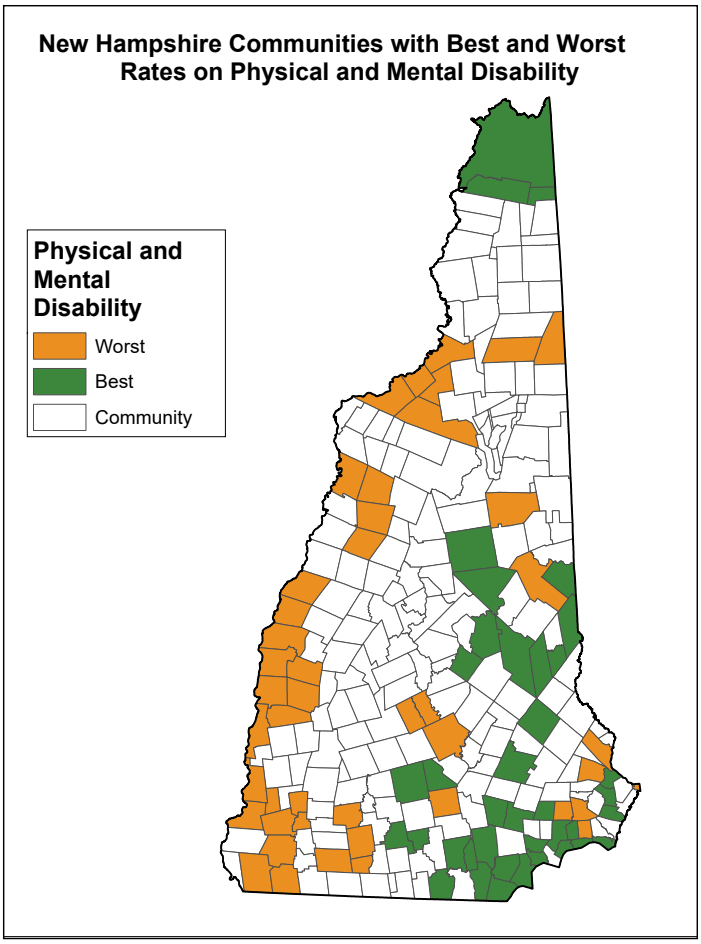
This dimension of health encompasses a range of cardiovascular diseases, including measures of stroke, ischemic heart disease, congestive heart failure, and heart attacks. It also covers chronic obstructive pulmonary disease, diabetes, lung and colon cancer, rates of mortality, and the use of expensive medical treatments. The communities with the highest rates tend to be in cities. Three Manchester neighborhoods rank among the six New Hampshire communities with the highest scores. Cities and towns with the lowest rates of serious and complex chronic diseases include Hancock, Hanover, and Grantham.

The two main drivers contributing to differences in levels of serious and complex chronic diseases among older people in New Hampshire communities are socioeconomic status (education, income) and social environment (crime rate, residential turnover, and social engagement). Higher levels of serious and complex chronic diseases are found in New Hampshire communities with lower socioeconomic status and disadvantaged social environments. In addition, lower rates of serious and complex chronic diseases are found in communities whose older populations have a higher percentage of people age 85+, a higher percentage of older people living alone, a lower percentage of women, and a lower percentage of people where only English is spoken in the home.



Physical and Mental Disability

This aspect of community population health takes into account measures of both physical and mental disability. It includes assessments related to vision, cognition, ambulation, self-care, and impairments in independent living. It also encompasses Alzheimer's disease, alcohol use disorders, personality disorders, schizophrenia, and bipolar disorders. Many communities with higher disability rates have racially and ethnically diverse populations with lower income levels and less education. As seen in the map, the highest rates of disability were recorded in Wentworth-Warren, Westmoreland, and central Manchester. The lowest rates were found in East Kingston-South Hampton, Hampstead, and Atkinson.

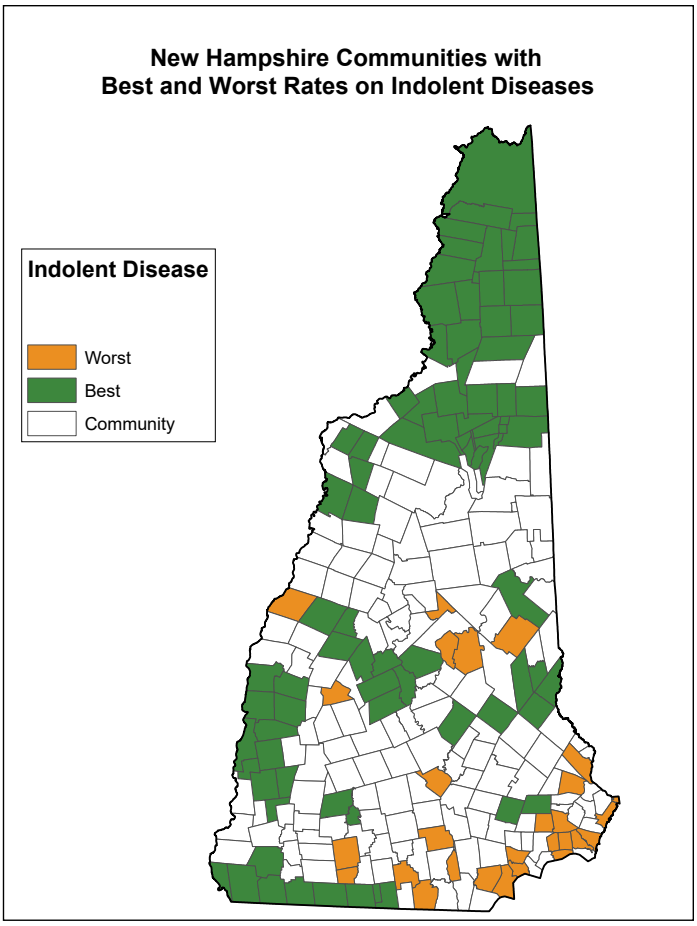


Having a higher percentage of residents who are age 85 or older is a main contributor to a higher level of physical and mental disability in a community. In addition, higher levels of population disability are found in communities with poorer social environments (higher crime rates, more residential turnover and a lower rate of voter participation) as well as those with higher Medicare Advantage plan market shares.

Indolent Diseases

The third dimension of population health reflects a higher prevalence of indolent diseases or chronic disorders that progress slowly or may be asymptomatic. Most can be effectively managed with medication and regular visits to a doctor. The diagnosis of these diseases is often associated with good access to medical care. The socioeconomic status of older people is an important driver of the levels of indolent diseases in New Hampshire communities. Higher levels of indolent diseases are found where older people are more educated, have higher incomes, and have more robust social environments. This likely reflects the influence of economic resources on access to physician care. Higher rates of indolent diseases are also found in New Hampshire communities with more hospitals, nursing homes, physicians, and home health care providers, as well as where there are supportive community services such as adult day care and memory cafés. Indolent disease rates are also higher

in communities with higher percentages of older people who live alone, who are female, who are 85 years old or older, and who live in households where only English is spoken at home. Lastly, more environmental amenities and higher levels of Medicare Advantage are associated with higher levels of indolent diseases. As seen on the map, cities and towns with the state's highest scores for indolent diseases included New London, Hanover and New Castle. Communities with the lowest scores included Barnstead and an area of Coos County.



HEALTHY AGING IN RURAL COMMUNITIES

New Hampshire is a rural state, with about 37% of its population living in rural areas. This has implications for population health, not only because of the greater physical distance between people and health resources, but also because of demographic and socioeconomic population characteristics associated with rural communities. Compared to cities, residents of rural areas often have greater needs for health services as well as less access to the services needed to diagnose, treat acute illness, and manage chronic disease.

Tables 6–12 show differences among cities, towns, and rural areas. (See the Technical Notes for categorization details.) Using a one-way analysis of variance (ANOVA), we have tested whether the means for these communities are different. Differences noted in the tables between the highest and lowest means are statistically significant at the 95% confidence level.

Population Differences

Compared with the older population in towns or rural New Hampshire communities, the older

TABLE 6: POPULATION CHARACTERISTICS BY GEOGRAPHIC CLASSIFICATION

	City	Town	Rural
Population Density (per square mile)	832.8	129.4	60.0
% Female	54.2%	53.1%	51.3%
% White	97.5%	98.5%	99.1%
% Black	0.5%	0.2%	0.1%
% Asian	1.0%	0.4%	0.2%
% Other race	1.0%	1.0%	0.6%
% Hispanic	1.0%	0.4%	0.2%
% Speak only English at home	91.1%	95.7%	88.9%
% Widowed	22.1%	20.8%	23.5%
% Live alone	2.6%	2.1%	1.9%
% Moved within same county	3.6%	2.4%	2.9%
% Moved different county	0.7%	1.2%	0.8%
% Medicare Advantage enrollees	7.9%	8.1%	2.7%
% Dually eligible for Medicaid and Medicare	5.9%	7.1%	9.8%
% 65+ who were employed past year	26.2%	25.1%	23.8%
Income % $20,000–$49,000	16.3%	17.3%	22.2%
Income % $50,000+	49.8%	44.1%	36.2%
% Owners spending > 35% income on housing	22.7%	20.6%	18.1%
% 65+ with poor supermarket access	33.2%	10.7%	21.0%

population in New Hampshire cities generally has higher levels of education, has higher income, and is more racially/ethnically diverse. On average, older people living in rural areas have the lowest levels of education and the lowest average incomes relative to their counterparts in other communities.

Perceived Health Differences and Health Behaviors

Distinct differences in health behaviors and perceived health emerged when the data were analyzed by geographic area. Those reporting fair or poor health, more than 15 days per month of poor physical health, tooth loss, and injurious falls tend to be highest among older people living in rural communities. Rural residents also tend to have lower rates of good health behaviors such as regular exercise, eating fruits and vegetables, cancer screening, dentist visits, and seatbelt use, and higher rates of unhealthy behaviors or conditions such as smoking, being sedentary, and being overweight.

TABLE 7: BEHAVIORS BY GEOGRAPHIC CLASSIFICATION			
	City	Town	Rural
Any physical activity	74.3%	76.2%	68.8%
Muscle strengthening exercise	27.2%	26.2%	20.7%
Aerobic exercise	57.8%	61.1%	56.0%
Both muscle and aerobic exercise	21.0%	20.2%	15.2%
Falls causing an injury in past year	10.4%	9.7%	11.9%
Fair or poor self-rated health	16.1%	15.9%	21.2%
15+ physically unhealthy days last month	12.0%	12.8%	13.7%
Got a check-up in the past year	88.2%	83.1%	87.8%
Met CDC screening guidelines	41.3%	38.4%	35.5%
Pneumonia vaccine	78.5%	76.8%	79.7%
Cholesterol screening	96.4%	94.2%	92.3%
Mammogram within past 2 years	81.5%	76.0%	74.7%
Colon cancer screening	78.2%	74.9%	74.0%
Current smoker	7.9%	8.2%	9.4%
Tooth loss	28.4%	28.7%	37.0%
Annual dental visit	77.6%	74.7%	64.0%
Eat fruits and vegetables	20.8%	20.7%	16.3%
Obesity	27.2%	26.4%	29.2%
Have a regular physician	96.4%	94.8%	94.1%
Did not see a physician due to cost	5.4%	5.3%	6.6%
Always wear a seatbelt when driving	79.7%	75.2%	68.8%

Access-to-Care Differences

The access-to-care indicators reveal similar patterns based on population density. The data suggest older people in New Hampshire cities have greater access to physicians, hospitals, nursing homes, and home health agencies; are more likely to have a regular physician, and are less likely to not see one when needed due to cost than their counterparts living in towns and rural areas. Older people living in rural communities have the least access to Medicare providers, are least likely to have a regular physician and most likely to not see one when needed, due to cost.

TABLE 8: ACCESS TO CARE BY GEOGRAPHIC CLASSIFICATION			
	City	Town	Rural
Number of primary care providers within 5 miles	70.21	20.92	11.61
Number of hospitals within 5 miles	0.57	0.26	0.26
Number of nursing homes within 5 miles	2.15	0.68	0.39
Number of home health agencies	9.13	3.14	2.41
% of vacant homes in community	8.7%	26.2%	30.0%
% in county with broadband access	96.4%	86.9%	74.4%

Population Health Differences

Are the differences in socioeconomic status, access to care, and health behaviors of older people in New Hampshire reflected in geographic differences in population health? To address this question we examined differences in the three dimensions of population health that emerged from our analysis of Medicare health indicators.

The factor scores for the three population health factors reported in Table 9 are computed as weighted sum of standardized scores (z-scores) of the 60+ disease indicators used in the factor analysis. There is no theoretical maximum or minimum value, but scores reflect positions of the community relative to average. The factor scores have been rescaled to have an average of 100 for ease of interpretation. A larger factor score means that the community has worse population health for that health factor. Thus, a value of 150 mean score is 50% higher than the community average and a score of 50 would be 50% lower than the community average.

TABLE 9: POPULATION HEALTH BY GEOGRAPHIC CLASSIFICATION			
	City	Town	Rural
Serious & complex chronic diseases	134	67	117
Physical and mental disability	69	121	104
Indolent diseases	159	95	22

Serious and Complex Chronic Diseases

As seen in Table 10, older people in towns had the lowest rates of serious and complex chronic diseases, about 33% lower than the New Hampshire state average. Cities have the most burden and highest rates of serious and complex chronic diseases. Older people in cities have the highest rates of numerous chronic diseases, including alcohol and substance use disorders, anemia, chronic kidney disease, endometrial cancer, high cholesterol, hypertension, ischemic heart disease, liver disease, and multiple comorbidities. In contrast to towns, average rates of serious and complex chronic diseases in smaller rural communities were more similar to those in cities, exceeding the New Hampshire community average by 17%.

TABLE 10: SERIOUS AND COMPLEX CHRONIC DISEASES BY GEOGRAPHIC CLASSIFICATION			
	City	Town	Rural
Heart attack	4.3%	4.4%	5.3%
Clinical diagnosis of obesity	17.2%	15.5%	15.8%
High cholesterol	73.4%	68.2%	68.7%
Lung cancer	1.7%	1.4%	1.5%
Colon cancer	2.4%	2.2%	2.7%
Endometrial cancer	1.6%	1.7%	1.4%
Depression	28.5%	27.2%	27.0%
Anxiety	22.2%	19.4%	18.2%
Alcohol or drug use disorder	5.6%	5.1%	5.2%
Tobacco use disorder	10.2%	9.9%	11.2%
Diabetes	28.1%	25.6%	28.0%
COPD	20.5%	18.4%	20.9%
Asthma	13.1%	12.0%	12.1%
Hypertension	70.1%	67.4%	69.2%
Ischemic heart disease	34.4%	32.0%	33.6%
Anemia	37.8%	34.7%	33.4%
Chronic kidney disease	23.2%	18.8%	19.4%
Peripheral vascular disease	14.4%	13.0%	15.3%
Fibromyalgia, chronic pain and fatigue	18.7%	17.3%	17.2%
Epilepsy	2.0%	1.7%	1.7%
Blind	0.8%	0.7%	0.6%
Liver disease	7.2%	5.9%	6.2%
Multiple (4+) chronic conditions	54.4%	50.7%	51.7%
% 65+ with 0/15 chronic conditions	10.3%	11.4%	11.8%
Annual emergency department visits/1000 people age 65+	539.27	559.77	617.90
Prescription refills/person/year	48.35	46.49	49.02
Home health visits/year	2.51	2.24	2.15
Durable medical equipment	1.95	1.91	2.16
In-patient hospital stays	238.10	214.66	227.92
Skilled nursing facility stays/1000 people age 65+	70.44	68.11	87.03
Skilled nursing facility stays	70.44	68.11	87.03

Physical and Mental Disability

Rates of physical and mental disability were lowest in New Hampshire cities, about 30% lower than the New Hampshire state average. The highest average rates of physical and mental disability among older people are found in towns.

TABLE 11: PHYSICAL AND MENTAL DISABILITIES BY GEOGRAPHIC CLASSIFICATION

	City	Town	Rural
Alzheimer's disease and related dementias	11.2%	12.8%	10.1%
Bipolar disorders	3.2%	2.4%	2.2%
Schizophrenia	4.9%	4.0%	4.2%
% Hearing disability or impairment	13.4%	15.9%	16.9%
% Cognitive disability or impairment	5.9%	7.4%	6.5%
% Ambulation disability or impairment	17.4%	18.7%	19.9%

Indolent Diseases

On average, indolent disease rates are about 78% lower in rural communities compared to the New Hampshire state average. These rates also are far lower than those among older people living in cities and towns. Rates of all indolent disease indicators, except leukemia, were lowest in smaller rural communities. In contrast, the highest average rates of indolent disease were found in cities, with average rates exceeding the New Hampshire community average by about 58%. Rates of all indolent disease indicators except leukemia and cataracts, are highest among older people living in cities. It is worth noting that rates of physician office visits were particularly low in rural areas.

The distinctive rural/city pattern of indolent disease rates suggests that access to care may be a determining factor in the diagnosis and management of indolent conditions such as arthritis, osteoporosis, atrial fibrillation, and hypothyroidism. Such conditions generally progress slowly, are not life-threatening, and can be managed effectively with regular physician care and monitoring. The very low rates of indolent diseases in smaller rural communities likely reflect lack of access to care (and, thus, under-diagnosis) rather than better health.

TABLE 12: INDOLENT DISEASES BY GEOGRAPHIC CLASSIFICATION

	City	Town	Rural
Annual physician visits	7.00	5.16	3.19
Atrial fibrillation	14.5%	13.9%	13.2%
Arthritis	49.0%	47.9%	46.3%
Osteoporosis	17.6%	15.5%	14.3%
Cancer - breast	9.8%	9.7%	8.6%
Cancer - prostate	11.7%	11.0%	9.7%
Hyperplexia (enlarged prostate)	36.8%	35.6%	31.9%
Hypothyroidism	20.8%	19.1%	19.1%
Migraine	4.1%	3.8%	3.4%
Brain injury	1.1%	1.0%	0.8%
Glaucoma	23.2%	23.0%	19.8%
Cataract	60.2%	61.9%	58.4%

COMPARING NEW ENGLAND STATES

Table 13 presents data from other New England states to understand how New Hampshire compared to regional neighbors. New Hampshire's median age of 43.0 years makes it the second oldest state in the nation, younger only than Maine (44.6 years).

When comparing key indicators across other New England states over time, we found indicators tended to move in the same direction across states. This consistent pattern suggests similar factors are influencing the population health of older people in the region and probably aren't specific to a single state. Thus, a regional approach may prove effective and offer economies of scale. Tables 13 and 14 show state rates for indicators that are statistically better or worse than average. New Hampshire was consistently in the healthier range, with the lowest rates for heart attack, anemia, glaucoma, Medicare-managed care enrollees, and for those dually eligible for Medicare and Medicaid.

TABLE 13. COMPARING SELECTED DISEASE INDICATORS AMONG NEW ENGLAND STATES

Italicized rates noted in orange are the highest in the region. Bold rates are the lowest in the region.	NH	CT	MA	ME	RI	VT
Alzheimer's disease or related dementias	12.0%	*14.4%*	13.6%	11.3%	14.2%	**10.1%**
Anemia	**37.3%**	51.4%	46.6%	39.7%	*51.8%*	37.9%
Blindness or visual impairment	0.9%	1.1%	*1.5%*	**0.8%**	1.3%	0.8%
Chronic kidney disease	22.3%	25.5%	*27.3%*	23.4%	26.5%	**19.2%**
Deafness or hearing impairment	14.4%	14.1%	*16.1%*	**12.3%**	15.4%	13.9%
Depression	28.8%	**28.7%**	31.5%	*33.7%*	32.6%	29.8%
Diabetes	28.2%	34.2%	31.7%	29.3%	*36.8%*	**25.8%**
Glaucoma	**22.9%**	*28.4%*	25.7%	24.7%	27.2%	24.3%
Heart attack	**4.5%**	4.6%	4.6%	*6.0%*	5.5%	5.1%
Hip fracture	**3.3%**	*3.9%*	3.7%	3.5%	3.7%	**3.3%**
Hypertension	70.2%	77.1%	76.2%	71.1%	*79.7%*	**67.3%**
Ischemic heart disease	34.3%	42.3%	40.2%	37.5%	*44.4%*	**34.2%**
Stroke	10.8%	12.2%	12.0%	11.3%	*12.4%*	**10.4%**
Schizophrenia & other psychotic disorders	4.9%	5.2%	*5.9%*	5.2%	5.2%	**3.7%**
4+ chronic conditions	54.4%	61.5%	60.7%	57.4%	*64.4%*	**51.1%**

We investigated how health services utilization varied by state in Table 14. The most striking difference was in the rate of enrollment in a Medicare managed care plan, which ranged from a low of 7.9% in New Hampshire to a high of 38.9% in Rhode Island.

TABLE 14. COMPARING HEALTH SERVICE UTILIZATION INDICATORS AMONG NEW ENGLAND STATES

Italicized rates noted in orange are the highest in the region. Bold rates are the lowest in the region.	NH	CT	MA	ME	RI	VT
Dually eligible for Medicare and Medicaid	7.5%	***22.0%***	16.7%	21.3%	14.5%	14.8%
# Home health visits per year	2.5	3.8	***4.0***	2.2	3.6	2.4
Getting Medicaid long-term services and support	3.7%	***5.8%***	4.9%	2.8%	5.6%	3.9%
Medicare managed care enrollees	7.9%	27.3%	23.1%	26.9%	***38.9%***	8.4%
# Part D monthly prescription fills per person per year	49.1	49.4	***52.4***	49.7	51.4	47.3

A CALL TO ACTION

New Hampshire's population is steadily growing older, presenting challenges we must face together as well as great opportunities to reap the benefits of the combined experience, wisdom, and expertise of older people. These demographic changes have prompted new discussions about healthy aging and what communities need to do to support healthy aging in New Hampshire. This report is a powerful tool to inform communities striving to become better places for all of us to grow up and grow older together.

The path to action is clear.

UNDERSTAND.

- Download your Community Profile at HealthyAgingDataReport.org, which will help you understand your community's strengths and needs
- Educate yourself and others about the indicators for your city or town
- Compare your community to state averages

ENGAGE.

- Start a conversation
- Bring people together to talk about what the data mean and what can be done to address local opportunities and challenges
- Include older people and as many different sectors as possible such as faith-based organizations, the business community, law enforcement, and public health departments in the conversations

ACT.

- Use these data to set priorities, create new partnerships, identify funding sources, advocate for progress, and allocate resources
- Collaborate with diverse partners and funders
- Join the age-friendly movement!

The New Hampshire Alliance for Healthy Aging (NHAHA)

NHAHA is a statewide coalition of over 300 participants focused on aging issues (nhaha.info). Become an advocate for the priorities established by NHAHA that include:

- A permanent statewide entity on aging that can champion issues affecting older people across all state agencies, build effective public/private partnerships, and focus attention on creating an age-friendly state
- Adequate and sustainable funding to support and promote healthy aging in New Hampshire
- A strengthened focus on aging within the New Hampshire Department of Health and Human Services to ensure that the needs of New Hampshire's older adults are met
- Availability of a stable workforce of direct care workers to support older adults.
- More age-friendly communities in New Hampshire

Here are a few examples of what Massachusetts and Rhode Island advocates have accomplished with the *Healthy Aging Data Reports*.

Advocacy

- Funds were appropriated for discounted bus fares for older people after reviewing data on transportation gaps.
- Increased budget to deliver evidence-based health promotion programs for older people.
- Raised awareness about mental health issues in older people and expanded training and collaboration between mental health providers and aging service providers.

Collaboration

- A group of rural communities joined together to address healthy aging issues when they became aware of problems.

Economic development

- Health insurers, senior housing developers, and private aging service providers used the Data Reports to generate business development insights.
- A health care organization used one of the Data Reports for market research on where to locate a memory assessment clinic.

Education

- Students use the Data Reports in class research.
- Nonprofit organizations use the Data Report to write more competitive grant applications.
- Elected officials use the Data Reports to better understand their communities and constituents.

Service

- A municipal senior services department expanded a tai chi program in response to high fall rates.
- A District Attorney used information on falls and fractures to identify communities for a program on elder abuse.
- A Department of Public Health prioritized communities with high rates of asthma for a public education campaign.

ACKNOWLEDGMENTS

Healthy Aging Data Report Team

We thank the Tufts Health Plan Foundation for the financial support and partnership in this work. We are very grateful to Nora Moreno Cargie, Phillip Gonzalez, Kimberly Blakemore, and Alrie McNiff Daniels for all their contributions to the effort. The team consistently went above and beyond the call of duty to make this more impactful work.

We thank Laura Davie, Director of Long Term Care and Aging, and Co-Director of the Center on Aging and Community Living at the University of New Hampshire for her leadership and guidance. Laura was incredibly generous with her time, patient with our flood of requests and questions, and critical to our success.

We also thank our colleagues at JSI for their creative contributions. We especially thank Elizabeth Costello, Mary-Kathryn Aranda, Lisa Bryson, and Tahmid Chowdhury.

Many people contributed to this research. The 2017–2019 New Hampshire Healthy Aging Data Report research team: Beth Dugan Ph.D., Frank Porell Ph.D., Nina Silverstein Ph.D., Chae Man Lee Ph.D., Shuang Shuang Wang Ph.D., Bon Kim, Natalie Pitheckoff, Haowei Wang, Sae Hwang Han, Richard Chunga, and Shiva Prasad from the Gerontology Institute in the John W. McCormack Graduate School of Policy and Global Studies at the University of Massachusetts Boston. Steve Syre, Taryn Hojlo, and Steve Braun edited this report. Amanda Cox created the interactive web maps.

Suggested citation:

Dugan, E., Porell, F., Silverstein, N., & Lee, C.M. (2019). Highlights of the 2019 New Hampshire Healthy Aging Data Report.

Questions or suggestions?

Email **Beth.dugan@umb.edu**

We thank the many people who provided advice on the *2019 New Hampshire Healthy Aging Data Report*, especially our two advisory councils.

Measurement Advisory Council

Laura Davie, Chair
University of New Hampshire

Amy Costello
University of New Hampshire

Kelly Laflamme
Endowment for Health

Renee Pepin
Dartmouth Centers for Health and Aging

Alison Rataj
University of New Hampshire

Martha Tecca
Community Care of Lyme

Dissemination Advisory Council

Karen Ager
Endowment for Health

Peter Ames
Foundation for Healthy Communities

Heather Carroll
Alzheimer's Association

Sai Cherala
NH Department of Health and Human Services

Alrie McNiff Daniels
Tufts Health Plan Foundation

Laura Davie
University of New Hampshire

Dan Hobbs
New Hampshire Legal Assistance

Jamie Hoebeke
Manchester Health Department

Kelly Laflamme
Endowment for Health

Dawn McKinney
New Hampshire Legal Assistance

Doug McNutt
AARP

Margaret Morrill
NH Department of Health and Human Services

Jennifer Rabalais
University of New Hampshire

Tufts Health Plan Foundation Board of Directors

Nora Moreno Cargie, President, Tufts Health Plan Foundation and Vice President, Corporate Citizenship, Tufts Health Plan

Thomas A. Croswell, President and Chief Executive Officer, Tufts Health Plan

Yvonne Goldsberry, Ph.D, President, Endowment for Health

David S. Green, M.D, Critical Care Medicine, Pulmonary Medicine, Emerson Hospital

Lydia Greene, Senior Vice President, Chief Human Resources Officer, Tufts Health Plan

Jackie L. Jenkins-Scott, President JJS Advising

Vincent Mor, Ph.D, Florence Pirce Grant University Professor, Brown University

Thomas P. O'Neill, III (Chair), Chief Executive Officer, O'Neill and Associates

Charlotte Golar Richie, Former State Representative and Civil Rights Commissioner

George A. Russell, Jr., Executive Vice President, Director of Corporate Citizenship and President of State Street Foundation, Inc. (retired), State Street Corporation

Sarah E. Slater, M.D, Physician Hematology/Oncology, Hospice and Palliative Medicine, Mount Auburn Hospital and Instructor of Medicine, Harvard Medical School

Steven A. Tolman, President, Massachusetts AFL-CIO

TECHNICAL NOTES

See our technical report for comprehensive information on data sources, measures, methodology and margin of errors.

For most indicators, the reported community and state values are estimates derived from sample data. Thus, it is possible that some of the differences between state and community estimates may be due to chance associated with population sampling. We use the terms "better" and "worse" to highlight differences between community and state estimates that we are confident are not due to chance. "Better" is used where a higher/lower value has positive implications for the health of older residents. "Worse" is used where a higher/lower score has negative implications for the health of older people, and when the implication is unclear we use an asterisk. Similarly, differences noted in the tables or text are statistically significant at the 95% or 90% confidence level. The terms better or worse do not indicate any value judgement on the part of the researchers. After careful and deliberate conversations with a range of stakeholders, we believe better/worse is the simplest way to communicate what the rates mean.

We balance two goals. First, we aim to report data at local levels because we believe change is often locally driven. Second, we vowed to protect the privacy of the people providing the information reported. Thus, given the constraints of the data analyzed we used a hierarchical approach to reporting. When possible, we report estimates for 244 geographic units (i.e., every populated city/town and four Nashua and five Manchester neighborhoods). For example, the population characteristics and information from the US Census were reported for all 244 units. For other data (i.e., highly prevalent chronic diseases and health services utilization), we report for 154 geographic units. For less prevalent conditions, we report for 69 geographic units. For the BRFSS data, we report for 29 geographic units, and for the lowest prevalence conditions (e.g., HIV) we report for four geographic units. The same age/sex adjusted estimate is reported for all cities/towns within aggregated geographic areas. Maps of the different geographic groupings and the rationale behind the groupings are in the Technical Report.

Data Sources:

1. Population Characteristics: The U.S. Census Bureau (American Community Survey 2011–2016; US Census 2010).
2. Wellness & Prevention: The Behavioral Risk Factor Surveillance System (2011–2016).
3. Nutrition/Diet: The Behavioral Risk Factor Surveillance System (2011–2016), The Master Beneficiary Summary File ABCD/Other from CMS (2014-2015), and the U.S. Department of Agriculture Food Atlas (2017).

4. Behavioral Health: the Behavioral Risk Factor Surveillance System (2014–2016), The Master Beneficiary Summary File ABCD/Other from CMS (2014–2015), CDC Wonder website (2014–2016).
5. Chronic Disease: The Master Beneficiary Summary File ABCD/Other from CMS (2014–2015).
6. Disability: the Master Beneficiary Summary File ABCD/Other from CMS 2014–2015 for the clinical measures, and the American Community Survey (2012–2016) for the self-reported disability.
7. The Behavioral Risk Factor Surveillance System (2014–2016), The Master Beneficiary Summary File ABCD/Other from CMS (2015), Medicare.gov (downloaded June–July 2018), the NH Division of Public Health Services (2018), National Adult Day Services Association (2018), memorycaredirectory.com (2018), and the Alzheimer's Association (July 2018).
8. The Master Beneficiary Summary File ABCD/Other from CMS (2015), and Medicare Nursing Home Compare (December 2018).
9. AARP (2018 update; https://www.aarp.org/livable-communities/network-age-friendly-communities/info-2014/member-list.html), the Aging & Disability Resource Center, U.S. Environmental Protection Agency Air Compare (2016), assistedlivingfacilities.org, the American Community Survey (2012–2016), the NH Department of Business and Economic Affairs Division of Travel and Tourism Development (August 2018), the Institute of Museum and Library Services (August 2018), NH YMCA (July 2018), the Federal Communications Commission (2016), BRFSS (2014–2016), and the NH Secretary of State.
10. The U.S. Department of Justice Federal Bureau of Investigation (August 2017), the County Health Rankings (2018), the Behavioral Risk Factor Surveillance System (2012, 2014, 2016), the American Community Survey (2012-2016), and the National Highway Traffic Safety Administration (2011–2015).
11. The American Community Survey (2012–2016) and the Center for Social and Demographic Research on Aging at the University of Massachusetts Boston (Aug 2017).

Notes for the rural/suburban/urban analyses

We used the terms city, town, and rural areas to describe the communities. New Hampshire cities and towns were assigned to categories derived from 2013 Rural-Urban Continuum codes (RUCCs) of the U.S. Department of Agriculture. The Rural-Urban Continuum Codes are a classification scheme with seven categories that distinguish metropolitan counties and non-metropolitan rural counties. Several categories of RUCCs were combined to form a condensed RUCC classification in which cities and towns were assigned to three categories: (1) counties in metropolitan areas of any size, (2) "fringe" non-metro counties adjacent to a metropolitan area with a population of 2,500 or more, and "remote" non-metro counties with a population of 20,000 or more and not adjacent to a metropolitan area, and (3) remote non-metro counties with a population of less than 20,000 and not adjacent to a metropolitan area. Two hundred and sixty-six communities were assigned their RUCC based on the counties in which they are located. These communities include 257 cities and towns, five communities within Manchester, and four communities within Nashua. There are 88 metro RUCC communities, 120 non-metro fringe RUCC communities, and 58 non-metro remote RUCC communities. Sample means were computed for most reported healthy aging indicators for all communities in the three RUCC subgroups. These are reported in Table 4. While the RUCC categories were not defined on the basis of population density, the mean population densities were much lower in the fringe and remote non-metro communities than in the metro communities. The mean population densities for metro communities, fringe non-metro communities and remote non-metro communities are 833, 129, and 60 people per square mile, respectively. Scores for the three population health components derived from factor analysis were inflated and rescaled, so that their mean values over all communities was 100. Mean scores by RUCC group are shown in Table 9. Higher scores reflect higher prevalence rates of chronic disease and poorer population health.

"Aging is an extraordinary process where you become
the person you always should have been."

– David Bowie