



***Heywood Healthcare***

*Athol Hospital | Heywood Hospital*

## **Executive Summary**

### **Abstract**

The executive summary section of this report highlights the overview of the methodology of the study and gives a brief summary of the data highlights of each chapter of the report.

Heywood Healthcare – Athol Hospital and Heywood Hospital

## Executive Summary

The 2018 Community Health Needs Assessment (CHNA) of Heywood Healthcare's Athol and Heywood Hospitals presents issues related to the health, wellbeing and related factors that impact the health of those living in Heywood Healthcare's catchment area (from here on referred to as the "Service Area"). This study was a collaborative effort conducted by Heywood Healthcare's Heywood Hospital and Athol Hospital; the Montachusett Regional Planning Commission; UMASS Memorial Health Alliance Clinton Hospital; The CHNA 9 Group; and John Snow, Inc. Various other organizations and individuals also contributed to this effort, including community-based organizations and health service partners, as well as advocacy efforts from hospitals, health centers, rehabilitation centers, primary care physician and specialty networks, public health networks and local schools. Staff at the Montachusett Regional Planning Commission (MRPC) were responsible for conducting research and analysis efforts for this study. MRPC is located in Leominster, Massachusetts.

## About Us: Heywood Healthcare

Heywood Healthcare is an independent, community-owned healthcare system serving north central Massachusetts and southern New Hampshire. It is comprised of Athol Hospital, a 25-bed not-for-profit, Critical Access Hospital in Athol, MA; Heywood Hospital, a non-profit, 134-bed acute-care hospital in Gardner, MA; Heywood Medical Group with primary care physicians and specialists located throughout the region and Urgent Care in Gardner and Athol. The Quabbin Retreat in Petersham, is the newest development of Heywood Healthcare, and will provide a full continuum of financially accessible substance misuse and mental health care services for adults and adolescents. The Heywood Healthcare organization includes four satellite facilities in MA: Heywood Rehabilitation Center at Heywood; West River Health Center in Orange; Winchendon Health Center and Murdock School-based Health Center in Winchendon.

## Purpose

Past CHNAs of Heywood Healthcare's catchment area have been used to launch important initiatives created to address the health care needs identified in each study. This study provides a comprehensive overview of the health status, issues and concerns of residents, as well as assets that currently exist to provide services to locals in need. This study also explores relevant social issues affecting health and wellbeing that exist across the catchment area, and even cross over bordering communities. The writing of this report is intended to inform Athol Hospital and Heywood Hospital leadership and staff, local residents, government officials, businesses, community organizations and other relevant stakeholders of the health status of their communities using the most up-to-date and comprehensive quantitative and qualitative data.

Throughout this study, special attention was paid to "communities within communities", health disparities and health equity. Study researchers were careful to ensure that information and perceptions from under-represented racial/ethnic, socioeconomic and geographic groups were collected from Surveys, Focus Groups, and Healthcare Professional Interviews. Study authors made sure to take all of this insight into full consideration when analyzing data and writing the final report. This report's intent is to provide a comprehensive review of Heywood Healthcare's Athol and Heywood Hospitals catchment areas.

# Methodology and Data Sources

## Framework Guiding the Community Health Needs Assessment Process

The process of organizing and crafting a Community Health Assessment is a collaborative one. Throughout the process, stakeholders across all communities that make up Heywood Healthcare’s Service Area were engaged in focus group sessions, key stakeholder interviews, discussions and surveys that informed perceptions for this report. In the background, the public health professionals at Heywood Healthcare and the Massachusetts Department of Public Health, as well as staff at the Montachusett Regional Planning Commission (MRPC) were hard at work collecting and analyzing quantitative data on a swath of key data points for all 15 communities in the Service Area from sources like the US Census Bureau, the American Community Survey, and the Massachusetts Department of Public Health. This section provides an overview of the process required to complete this report using a guiding framework that directed the efforts of Heywood Healthcare and the MRPC.



## Community Health Assessment Guiding Framework

The following section describes the process undertaken by Heywood Healthcare and MRPC to conduct the 2018 Community Health Needs Assessment (CHNA).

### 1. Set Agenda

Heywood Healthcare Senior Leadership gathered with MRPC staff in August 2017 for a planning session to discuss the CHNA process and requirements. The group established an agenda for the report, identifying key data points as desired from the healthcare group as well as those required of the CHNA according to the Internal Revenue Service (IRS). From there a timeline was crafted by the team for

reaching critical milestones and tasks were delegated to Heywood and MRPC staff. Heywood's staff along with MRPC also gathered input from the CHNA Advisory Group made up of department heads from Athol and Heywood Hospitals, the North Quabbin Community Coalition, the CHNA-9 Group and other relevant community partners.

## **2. Data Collection**

Qualitative and quantitative data was collected by various staff at Heywood Healthcare and the MRPC over the succeeding months. Healthcare Professional interviews and focus groups were conducted by MRPC staff, and an online/hard copy survey was distributed across the Service Area. The data and information collected through these activities, as well as patient discharge data from Athol Hospital and Heywood Hospital Emergency Department, were used to provide public input on health issues facing local residents. Secondary data sources like the U.S. Census, the American Community Survey, the Massachusetts Department of Labor and Workforce Development, and the Massachusetts Department of Public Health were used to quantify data critical to painting a full picture of the health status of the Service Area.

## **3. Data Analysis**

The data collected during step two was then organized into tables, graphs, and graphics and analyzed by MRPC and Heywood Healthcare staff. A second meeting between MRPC and the CHNA advisory group was held in April 2018 for updates on the progress of the report to highlight findings and comparisons to the previous CHNA from 2015.

## **4. Draft Report**

The analysis done by Heywood and MRPC staff was then written into a narrative by several staff at MRPC. This narrative was meant to put the numbers together into words to help the reader make sense of the large amount of data placed in front of them.

## **5. Review and Edit**

The draft report was then peer reviewed by subject matter experts at Heywood Healthcare and partner organizations for quality assurance and recycled to the MRPC for final edits. This draft was presented to the CHA Advisory group in August 2018 where the Community Health Improvement Plan strategy focus areas and target populations were identified.

## **6. Public Comment**

A draft report was then shared with the Community Benefits Advisory Committee for final review and comment. It was also posted on the websites of Athol and Heywood Hospitals and the MRPC and was distributed to the governing entities of the 15 communities in the Service Area and the CHNA 9 and North Quabbin Community Coalition for distribution to the public and community providers. These findings were left open for several weeks in search of public input and feedback before making the report final.

## **7. Board Approval**

The final draft was then presented to Heywood HealthCare's Board of Trustees at their September meeting for final approval.

## **8. Report dissemination and Community Health Improvement Plan developed**

The final report was posted on the Athol and Heywood Hospital's website and presented to the groups and individuals that contributed to the assessment findings. The CHNA findings and feedback garnered from the presentations informed the Hospital's community benefit target population, priority areas and

implementation strategies. The Community Benefit strategies were aligned with the Hospitals strategic plan and coordinated with the CHNA9 regional community health improvement planning process.

### Data Collection

Quantitative data for this report came from Massachusetts Community Health Information Profile (MassCHIP) data from the Massachusetts Department of Public Health (MassDPH); the Youth Risk Behavior Survey (YRBS) data; U.S. Census data (including data from the American Community Survey); and other Commonwealth and Federal Government organizations and agencies. All data were subject to rigorous review, fact-checking and verification processes.

Qualitative data was gathered through 17 Focus Groups and 12 Healthcare Professional Interviews hosted by MRPC with individuals representing many diverse communities and populations that live in Heywood Healthcare’s catchment area. A survey was also made available online through SurveyMonkey.com and was distributed to 29 locations across the Service Area in hard copy form. Overall, 952 surveys were filled out with a completion rate of about 62.7% (596 completed surveys).

<p><b>12 Health Professional Interviews</b></p>	<ul style="list-style-type: none"> <li>• Rebecca Bialecki (1-18-18)</li> <li>• Denise Foresman (1-25-18)</li> <li>• Barbara Nealon (2-27-18)</li> <li>• Nora Salvarados (2-27-18)</li> <li>• Brian Gordon (4-19-18)</li> <li>• Elaine Fluet (5-1-18)</li> <li>• Heather Bialecki-Canning (5-2-18)</li> <li>• Mady Caron (5-2-18)</li> <li>• Jeannette Robichaud (5-3-18)</li> <li>• Alison Smith (5-4-18)</li> <li>• Chuncie Willis (5-4-18)</li> <li>• Renee Eldredge (5-4-18)</li> </ul>
<p><b>17 Focus Groups</b></p>	<ul style="list-style-type: none"> <li>• North Quabbin Recovery Planning Group (9-11-17)</li> <li>• Jail to Community Task Force (9-14-17)</li> <li>• Children’s Health and Wellness (9-27-17)</li> <li>• Multicultural Task Force (9-28-17)</li> <li>• Gardner Area Interagency Team (9-29-17)</li> <li>• Substance Abuse Task Force (10-3-17)</li> <li>• Greater Gardner Religious Council (10-3-17)</li> <li>• Schwartz Center Rounds (10-4-17)</li> <li>• Greater Gardner Chamber of Commerce (10-10-17)</li> <li>• Heywood Senior Team (10-24-17)</li> <li>• Regional Behavioral Health Collaborative (10-31-17)</li> <li>• Gardner MENders Support Group (11-1-17)</li> <li>• Montachusett Suicide Prevention Task Force (11-6-17)</li> <li>• North Quabbin Community Coalition (11-17-17)</li> <li>• Community Health Connections Board (11-27-17)</li> <li>• Montachusett Public Health Network (12-13-17)</li> <li>• CHNA-9 CHIP Breakfast (12-14-17)</li> </ul>

<p><b>30 Survey Access Locations</b></p>	<ul style="list-style-type: none"> <li>• Café Edesia Chestnut – Gardner</li> <li>• Athol Town Hall</li> <li>• Athol Library</li> <li>• New Salem Town Hall</li> <li>• New Salem Library</li> <li>• Westminster Town Hall</li> <li>• Westminster Library</li> <li>• Gardner Library</li> <li>• Gardner Council on Aging</li> <li>• Templeton Town Hall</li> <li>• Warwick Town Hall</li> <li>• Orange Town Hall</li> <li>• Orange Council on Aging</li> <li>• Orange Library</li> <li>• Winchendon Town Hall</li> <li>• Winchendon Library</li> <li>• Royalston Town Clerk</li> <li>• Royalston Town Hall</li> <li>• Wendell Town Hall</li> <li>• Erving Town Hall</li> <li>• Ashburnham Town Hall</li> <li>• Ashburnham Council on Aging</li> <li>• Ashburnham Library</li> <li>• Athol Council on Aging</li> <li>• Petersham Town Hall</li> <li>• Phillipston Town Hall</li> <li>• Athol YMCA</li> <li>• Winchendon Community Center</li> <li>• Winchendon YMCA</li> <li>• SurveyMonkey.com distributed through Study Partner’s email distribution list and via text to Heywood Medical Group’s patients</li> </ul>
<p><b>Quantitative Data Sources</b></p>	<ul style="list-style-type: none"> <li>• US Census/American Community Survey (ACS)</li> <li>• Mass Department of Workforce Development (DWD)</li> <li>• Youth Behavior Risk Survey (YRBS)</li> <li>• Mass Department of Public Health (DPH)</li> <li>• Mass Department of Mental Health (DMH)</li> <li>• Behavioral Risk Factor Surveillance Survey (BRFSS)</li> <li>• Athol and Heywood Hospital’s Emergency Department patient’s discharge data</li> </ul>

**Quantitative Data Sources**

Descriptions of the sources drawn upon for data used in this report are provided below. For a full list of sources please refer to **Appendix C**.

## ***US Census Data***

The Census Bureau's mission is to serve as the leading source of quality data about the nation's people and economy. We honor privacy, protect confidentiality, share our expertise globally, and conduct our work openly.

We are guided on this mission by scientific objectivity, our strong and capable workforce, our devotion to research-based innovation, and our abiding commitment to our customers.

Website: <https://www.census.gov/en.html>

## ***American Community Survey Data (American Fact Finder)***

The American Community Survey (ACS) is a nationwide survey designed to provide communities a fresh look at how they are changing. It is a critical element in the Census Bureau's decennial census program. The ACS collects information such as age, race, income, commute time to work, home value, veteran status, and other important data. As with the 2010 decennial census, information about individuals remains confidential.

The ACS collects and produces population and housing information every year instead of every ten years. Collecting data every year provides more up-to-date information throughout the decade about the U.S. population at the local community level. About 3.5 million housing unit addresses are selected annually, across every county in the nation.

The ACS produces 1-year estimates annually for geographic areas with a population of 65,000 or more. This includes the nation, all states and the District of Columbia, all congressional districts, approximately 800 counties, and 500 metropolitan and micropolitan statistical areas, among others.

The ACS produces 3-year estimates annually for geographic areas with a population of 20,000 or more, including the nation, all states and the District of Columbia, all congressional districts, approximately 1,800 counties, and 900 metropolitan and micropolitan statistical areas, among others.

In 2010, the Census Bureau released the first 5-year estimates for small areas. These 5-year estimates are based on ACS data collected from 2005 through 2009.

Website: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

## ***Mass Department of Labor and Workforce Development Data***

The Executive Office of Labor and Workforce Development manages the Commonwealth's workforce development and labor departments to ensure that workers, employers, and the unemployed have the tools and training needed to succeed in the Massachusetts economy.

Website: <https://www.mass.gov/orgs/executive-office-of-labor-and-workforce-development>

## ***Youth Risk Behavior Surveillance System Data***

The Youth Risk Behavior Surveillance System (YRBSS) monitors six types of health-risk behaviors that contribute to the leading causes of death and disability among youth and adults, including:

- Behaviors that contribute to unintentional injuries and violence
- Sexual behaviors related to unintended pregnancy and sexually transmitted diseases, including HIV infection
- Alcohol and other drug use
- Tobacco use
- Unhealthy dietary behaviors
- Inadequate physical activity

YRBSS also measures the prevalence of obesity and asthma and other priority health-related behaviors plus sexual identity and sex of sexual contacts.

YRBSS includes a national school-based survey conducted by CDC and state, territorial, tribal, and local surveys conducted by state, territorial, and local education and health agencies and tribal governments.

Website: <https://www.cdc.gov/healthyouth/data/yrbs/index.htm>

### ***Behavioral Risk Factor Surveillance System Data***

The Behavioral Risk Factor Surveillance System (BRFSS) is the nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. Established in 1984 with 15 states, BRFSS now collects data in all 50 states as well as the District of Columbia and three U.S. territories. BRFSS completes more than 400,000 adult interviews each year, making it the largest continuously conducted health survey system in the world.

Website: <https://www.cdc.gov/brfss/index.html>

### ***Mass Department of Public Health***

DPH regulates, licenses and provides oversight of a wide range of healthcare-related professions and services. Additionally, the Department focuses on preventing disease and promoting wellness and health equity for all people. Information is available for residents, providers, researchers and stakeholders.

Website: <https://www.mass.gov/orgs/department-of-public-health>

### ***Mass Department of Mental Health***

Most mental health services, including medication and therapy are provided through health insurance – MassHealth (Medicaid), the Massachusetts Health Connector (health insurance marketplace) or through private insurance (employer-based). The Department of Mental Health (DMH) has a specialized role in the healthcare delivery system as DMH provides supplemental services for people with the most serious needs.

Website: <https://www.mass.gov/orgs/massachusetts-department-of-mental-health>

## Qualitative Methodology

As is common practice in a CHNA, the qualitative data for this report was gathered from community leaders and members of the communities in Heywood’s catchment area. This is an incredibly important step in the CHNA process, as it is meant to collect insights on the public health concerns and assets as experienced by real people every single day. These insights were used to clarify and authenticate the concerns of local residents and deepen the researchers’ understanding of the real problems occurring in these communities. Staff at MRPC held 17 focus groups and 12 Healthcare Professional Interviews with leaders and community members across various Heywood communities. MRPC also crafted and distributed over 1,500 hard copy surveys and an online version on Survey Monkey to focus group participants and community members in English, Spanish, Hmong and Arabic. Overall, there were 952 respondents from people representing all four primary languages. More about the survey methodology will be discussed later in this section. JSI and MRPC held four (4) joint focus groups with organizations that provide services to communities that overlap between Heywood Healthcare’s and UMASS Memorial Health Alliance Clinton Hospital’s catchment areas. MRPC and JSI shared information with one another to help inform the CHNAs for their respective hospitals.

Qualitative data was only included in this report when mentioned multiple times in the Focus Groups, Interviews, and Surveys. Comments from participants provided qualitative data for the Study’s Authors to gain perceptions from the community and to help expand on quantitative findings. Community input can be found throughout the report and will indicated by the following icon:



### Focus Groups

#### Methodology:

Staff at MRPC held 17 focus groups with public/private sector leaders and community members across various Heywood communities. An MRPC staff member typically facilitated questioning and conversation while another took notes on large yellow note pads spread throughout the room. When permitted, an audio recording of the focus group was taken so that more detailed notes could be taken after the meeting. The Focus Group sessions would last anywhere from 30 to 90 minutes.

Collaborating Organization	Participants	Meeting Location
North Quabbin Recovery Planning Group	Provider and Consumer	Petersham
Jail to Community Task Force	Provider	Athol
Children’s Health and Wellness	Provider	Athol
Multicultural Task Force	Provider	Gardner
Gardner Area Interagency Team	Provider	Gardner
Substance Abuse Task Force	Provider	Athol
Greater Gardner Religious Council	Consumer	Athol

Schwartz Center Rounds	Provider	Gardner
Greater Gardner Chamber of Commerce	Consumer	Gardner
Heywood Healthcare Senior Team	Provider	Gardner
Regional Behavioral Health Collaborative	Provider	Gardner
Gardner MENders Support Group	Consumer	Gardner
Montachusett Suicide Prevention Task Force	Provider	Gardner
North Quabbin Community Coalition	Provider and Consumer	Orange
Community Health Connections	Provider	Fitchburg
Montachusett Public Health Network	Provider	Westminster
CHNA-9 CHIP Breakfast	Provider	Fitchburg

**Facilitation and Content:**

Depending on the group being interviewed (providers or consumers) two separate question sets were used to facilitate conversation. These questions were typically used as conversation starters where additional questions were asked based on responses or the area of expertise present in the room. The questions sets are as follows:

Provider Focus Group Questions
<ul style="list-style-type: none"> <li>• What are some of the challenges that you see in your work?</li> <li>• Are there particular barriers that you face as a provider/policymaker? If so, please explain.</li> <li>• What are some of the successful strategies being implemented to address the challenges you mentioned at your facility/agency? Nationally?</li> <li>• What recommendation(s) can you offer for improved services? What is the benefit of improving this existing or new service?</li> <li>• Is there a particular policy that could be augmented, amended or created? If so, please explain.</li> <li>• What are some of the area’s assets or strengths as they relate to the health and well-being of residents? Are there other issues impacting the health of the community on which the Community Health Needs Assessment (CHNA) should focus?</li> <li>• Please identify the behavioral/mental health needs or concerns of your community?</li> <li>• Are you satisfied with Heywood’s current capacity?</li> <li>• What one recommendation can you offer for improved health care services (i.e. programs, resources, policies)?</li> <li>• Is there one final comment that you would like to make about the health of the people in your community?</li> </ul>

## Consumer Focus Group Questions

- Do you use a primary care doctor for most of your routine health?
  1. If no, what kind of medical provider do you use for routine care
- What do you see as strengths or assets that contribute to the health and wellbeing of your community?
- What things negatively impact the health of your community?
- What programs or services have a positive impact on your health?
- What one recommendation can you offer for improved health care services (i.e. programs, resources, policies?)
- In past surveys, community members identified the below listed themes or issues. Have these issues changed over the past few years?
  1. Cost of access or utilizing healthcare
  2. Culture
  3. Mental health, substance abuse, depression, stress
  4. Social and cultural isolation
  5. Transportation
  6. Unemployment/poverty
  7. Other – specify
- If you need more information on a health topic, from whom do you obtain information?
  1. PCP
  2. Nurse
  3. Commercial Adv
  4. Online medical resources
  5. Council on aging or senior center
  6. Municipal health agent
  7. Teacher
  8. Other – specify
- If you need more information on a health topic and obtain it from one or more sources identified in the previous questions, how do you obtain the information?
  1. In person communication
  2. Phone
  3. Email
  4. Patient portal
  5. Internet
  6. Social media
  7. Other – please specify
- What services would you like to see offered at Athol or Heywood Hospital
- Is there one final comment that you would like to make about the health of the people in your community?

### Analysis and Results:

Following focus group sessions, MPRC staff would take the notes and audio recordings and organize them. Full quotes were recorded and details of the notes were fleshed out. These notes were then used to provide insight for chapters throughout the report where the quotes are directly relevant to their respective chapters.

### Healthcare Professional Interviews

#### Methodology:

Staff at MPRC held 12 interviews with healthcare professionals across various Heywood communities. MPRC staff would meet with healthcare professionals at their place of employment or they would come to the MPRC office for interview sessions lasting from 30 minutes to an hour.

Interviewee	Title	Organization
Barbara Nealon	Director of Social Services & Multicultural Services	Heywood Hospital
Denise Foresman	Director of Nutrition Services	Heywood Hospital
Nora Salvorados	Director of Psychiatric Services	Heywood Hospital
Rebecca Bialecki	VP of Community Health	Heywood Hospital
Brian Gordon	Program Director	Dana Day Treatment Center
Mady Coran	Registered Dietitian	Athol Hospital
Jeannette Robichaud	Executive Director	Athol YMCA
Elaine Fluet	President and CEO	GVNA Healthcare, Inc.
Alison Smith	Community Health Worker	Heywood Hospital ED
Chuncie Willis	ER Clinician	Heywood Hospital ER
Renee Eldredge	School-Based Care Coordinator	Gardner Schools
Heather Bialecki-Canning	Executive Director	North Quabbin Community Coalition (NQCC)

#### Facilitation and Content:

Being that interviewees were subject matter experts, the same provider questions used in the focus group sessions were used for questioning in these interviews. Some questions may not have applied to the individual being questioned and were omitted during the interviews. When permitted, audio recordings of the interviews were taken.

## Interview Questions

- What are some of the challenges that you see in your work?
- Are there particular barriers that you face as a provider/policymaker? If so, please explain.
- What are some of the successful strategies being implemented to address the challenges you mentioned at your facility/agency? Nationally?
- What recommendation(s) can you offer for improved services? What is the benefit of improving this existing or new service?
- Is there a particular policy that could be augmented, amended or created? If so, please explain.
- What are some of the area's assets or strengths as they relate to the health and well-being of residents? Are there other issues impacting the health of the community on which the Community Health Needs Assessment (CHNA) should focus?
- Please identify the behavioral/mental health needs or concerns of your community?
- Are you satisfied with Heywood's current capacity?
- What one recommendation can you offer for improved health care services (i.e. programs, resources, policies)?
- Is there one final comment that you would like to make about the health of the people in your community?

### Analysis and Results:

Following interviews, MPRC staff would take the notes and audio recordings and organize them. Full quotes were recorded and details of the note were fleshed out. These notes were then used to provide insight for chapters throughout the report where the quotes are directly relevant to their respective chapters.

### Survey Distribution

#### Methodology:

Staff from Heywood Healthcare and the MRPC discussed and finalized 22 survey questions to be distributed to the general public for comment. A copy of the survey can be found in Appendix B. The survey was left open from January 2018 to May 2018 on SurveyMonkey.com. The survey link was distributed through our study partner's email distribution lists and over 1,500 hard copy surveys were dropped off at 29 locations across the Service Area. At each drop box location, QR codes were printed with links for the online English, Spanish and Hmong versions of the survey so members of the community could respond directly from their smart phone. A hard copy version of the survey was also made available with an Arabic translation and made available to the Arabic community through grassroots efforts that will be discussed further in the next paragraph. Heywood Healthcare also sent a blast text message to over 9,000 Heywood Medical Group patients registered in the patient portal system with links to complete the survey electronically. Athol Hospital, Heywood Hospital, and the MRPC also advertised the survey link on their respective websites.

Heywood Healthcare's Executive team and the MRPC worked with Miguel A. Rodriguez Santana of the Multicultural Coalition at Heywood Hospital and Train Wu, Academic Counselor for the Diversity Workforce Pipeline at Mount Wachusett Community College to hand deliver hard copy surveys to

minority members of the community. They went to local barbershops, churches, and community spaces where Spanish, Hmong and Arabic speaking residents congregate and they worked hand in hand to help them fill out surveys in individual, as well as group settings.

**Drop Box Locations:**

- Café Edesia Chestnut – Gardner
- Athol Town Hall
- Athol Library
- New Salem Town Hall
- Mew Salem Library
- Westminster Town Hall
- Westminster Library
- Gardner Library
- Gardner Council on Aging
- Templeton Town Hall
- Warwick Town Hall
- Orange Town Hall
- Orange Council on Aging
- Orange Library
- Winchendon Town Hall

- Winchendon Library
- Royalston Town Clerk
- Royalston Town Hall
- Wendell Town Hall
- Erving Town Hall
- Ashburnham Town Hall
- Ashburnham Council on Aging
- Ashburnham Library
- Athol Council on Aging
- Petersham Town Hall
- Phillipston Town Hall
- Athol YMCA
- Winchendon Community Center
- Winchendon YMCA

**Analysis and Results:**

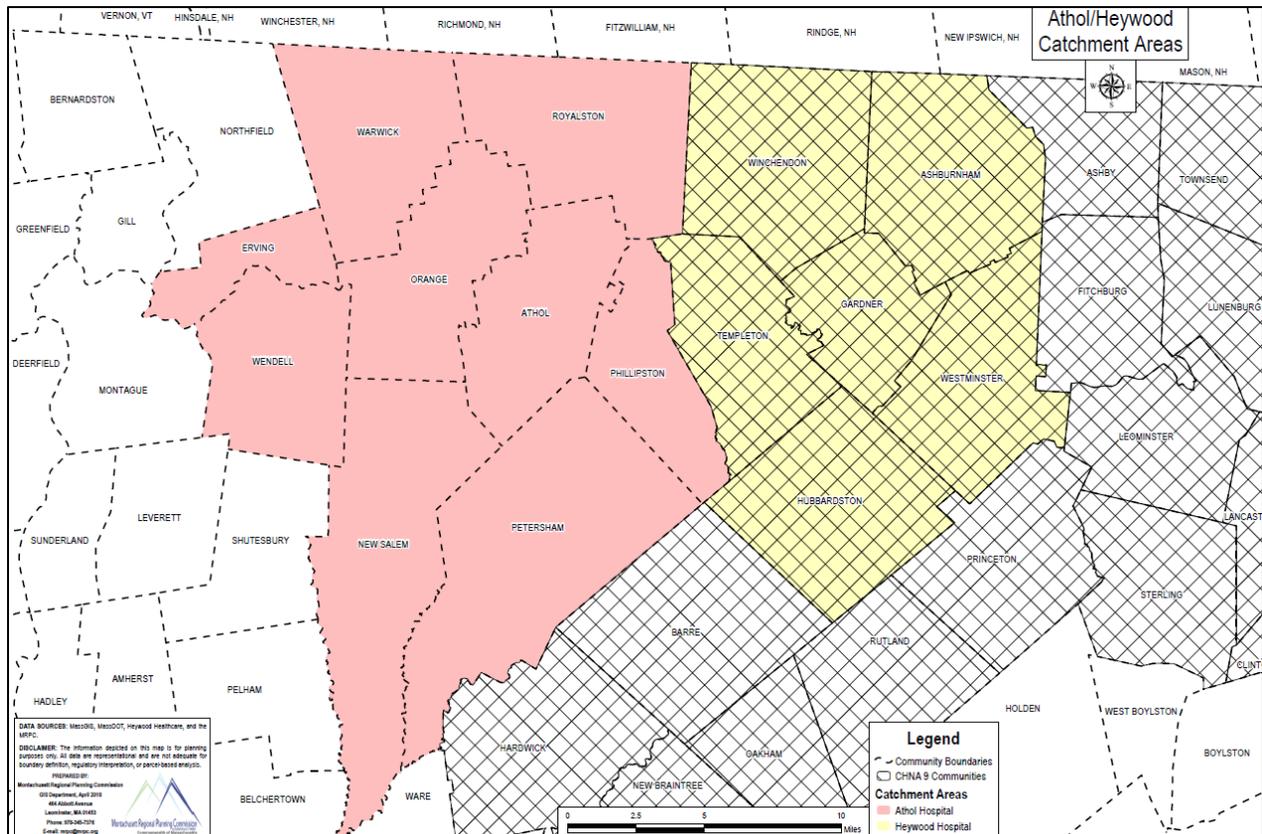
Surveys filled out by community members on SurveyMonkey.com were analyzed using the "Analyze Results" feature on the MRPC's SurveyMonkey profile. Final results can be found in **Appendix B**. Hard copy surveys in all four languages were collected by Miguel and Train and delivered to MRPC where staff entered responses manually into SurveyMonkey.com. Responses left in comment boxes were then dispersed throughout the report and used as contributions to the "Community Perceptions" section of select chapters.

**Heywood Healthcare Programs and Services**

Through the Focus Group and Stakeholder Interview process, MRPC staff made note of programs and services offered by Heywood Healthcare and other local healthcare providers as they were mentioned. A list of these programs and services are available in **Appendix A**. These programs made the list if they were mentioned on several occasions during Focus Groups or Stakeholder Interviews.

## Study Area Overview

The map that follows represents the catchment area analyzed for this study. The area highlighted in pink on the left represents Athol Hospital's nine (9) communities which include Athol, Orange, Phillipston, Petersham, New Salem, Royalston, Warwick, Irving and Wendell. The area highlighted in yellow on the right represents Heywood Hospital's six (6) communities which include Gardner, Templeton, Winchendon, Ashburnham, Westminster and Hubbardston. The cross-hatched area represents the Community Health Network Area (CHNA) 9 communities:



This assessment provides information on 15 communities covered by Heywood Healthcare services, including a few communities that overlap with UMASS Memorial Health Alliance Clinton Hospital's service area; Templeton, Gardner, Hubbardston, Westminster and, Ashburnham. Heywood Healthcare's catchment area analyzed for this report include the 15 municipalities listed below, including **one\*** (1) city and (14) towns:

- |                 |             |
|-----------------|-------------|
| Ashburnham      | Phillipston |
| Athol           | Royalston   |
| Erving          | Templeton   |
| <b>Gardner*</b> | Warwick     |
| Hubbardston     | Wendell     |
| New Salem       | Westminster |
| Orange          | Winchendon  |
| Petersham       |             |

Depending upon availability, data on all 15 of these communities is presented throughout this report to help paint a picture of the overall health status of the Service Area.

## Summary of Findings

The following chapter summaries highlight major findings from each chapter of the report. For a greater breakdown of chapter highlights, see the blue “Chapter Highlights” text box at the beginning of each chapter.

### Chapter 1 - Population Characteristics

- The overall population of the Service Area has grown a modest 6% since 2000. This rate is less than the US overall (9.7%), but double that of the Commonwealth of MA (3.1%).
- It is important to note the change in racial makeup over time and the growth of the Hispanic/Latino population between 2000 and 2016, especially in Gardner and Athol.
- The Service Area has a median age nearly 7 years higher than the State and Nation including a greater number of those age 65 and older living alone and increased 7% between 2010 and 2016.
- The rural nature of Heywood Healthcare’s communities and the social isolation of older adults living alone make it more difficult to access basic daily needs.
- Veterans in the Service Area are better off when compared to the State and Nation when it comes to health-outcomes and financial stability. However, disparities in unemployment and disability compared to non-veterans is prevalent throughout the Service Area.

### Chapter 2 – Social and Economic Factors

- The Social and Economic inequities experienced by people in the region vary widely from community to community.
- There are lower poverty rates overall throughout the Service Area compared to the State and Nation, but pockets of poverty persist throughout.
- Gardner, Athol, Wendell, and Orange have the highest poverty rates at 19%, 17%, 16.1%, and 13.7% respectively, compared to MA rate of 11.4%.
- Athol’s and Gardner’s childhood poverty rates have increased 6.4% and 22.6% respectively since the last CHNA in 2015 with data from 2013 and 2016.
- Overall, wages in the Service Area have increased by nearly \$200 million since 2000, but wages have decreased significantly in select communities.
- In four communities in the Service Area, the unemployment rate for veterans reaches beyond 10%; Warwick (10.5%), Athol (10.9%), Orange (11.5%), and Royalston (12.1%) compared to MA (7.3%)
- The Hispanic student population in the Service Area has increased 45.1% over the years, much more than the 29.9% increase in Hispanic students Statewide.
- Orange’s average percent of high needs students (65%) is the highest in the Service Area, followed by Gardner (63.1%) and Athol-Royalston (58.4%). Seven out of the fifteen Service Area districts fall above the State (46.6%) in percent of high needs students.
- The percent of residents that are paying more than 30% of their income on rent greater than the State (50.1%) are Warwick (91.7%), Wendell (74.3%), Orange (67.7%), Templeton (64.5%), and Phillipston (53.6%), with Winchendon tied with the State at 50.1%.

- Every Focus Group and Stakeholder Interview completed cited transportation as a major issue in the Service Area.
- The assault rate for Massachusetts is 8.89 and Winchendon (15.38), Athol (11.37), Erving (10.16), and Orange (9.59) have higher rates than the State.
- On January 1, 2018, 30% of males and 70% of females in MA DOC custody had an open mental health case, and 21% of males and 56% of females were prescribed psychotropic medication.
- As of January 1, 2018, 42% of males and 29% of females entered MA DOC with less than a 9th grade reading level

### **Chapter 3 – Maternal and Infant Health**

- There were 32 teen births throughout the Service Area. Thirteen of those teen births were from Gardner, six (6) were from Orange and five (5) were from Athol.
- There were 32 teen births throughout the Service Area. Thirteen of those teen births were from Gardner, eight (8) were from Winchendon, six (6) were from Orange and five (5) were from Athol.
- The teen birth rates for the Service Area for 2015 and 2016, are 11.25 and 16.6 respectively above the State rates of 9.4 and 8.47 for both years. Orange had the highest teen birth rate per 1,000 at 24.6.
- More than half of child-bearing mothers in six Service Area communities receive Publicly Funded Prenatal Care (PNC)
- Templeton, Westminster and Winchendon had the highest percentage of low birthweight babies in 2016.
- Four (4) of five (5) cases of infant mortality in the Service Area occurred in Heywood Hospital's Service Area communities
- 27.4% of Athol mothers, 20.8% of Gardner mothers, and 35.5% of Orange mothers smoked while pregnant in 2015, far above the overall Massachusetts rate of 5.9%
- With the exception of Wendell, Royalston and Westminster; mothers in all Service Communities breast feed less frequently than the state average of 87%
- Throughout the Service Area in 2016, there were at least 51 preterm births, a 54.5% increase from the 33 in 2015.
- Templeton and Westminster have the highest percentage of preterm births in Heywood Hospital's Service Area communities

### **Chapter 4 - Environmental Health**

- There were four (4) drinking water quality standards violations in the Service Area over the last five (5) years
  - Three (3) in Athol and one (1) in Ashburnham
- Many of the Service Area communities with the lowest percentage of children adequately screened for Blood Lead Levels (BLL) are also the communities with the highest percentage of housing stock built before 1978 (the year lead in paint was banned in Massachusetts)
  - Only 51% of children in the Service Area have been adequately screened for BLL compared to 77% throughout Massachusetts
- According to the State's Environmental Justice (EJ) Policy, the City of Gardner, and the Towns of Orange, Athol and Winchendon qualify as EJ Populations.
  - Gardner qualifies under the Minority and Income standards; Orange, Athol and Winchendon all qualify under the Income standards
- There are 30 Brownfield sites throughout the Service Area.

- 11 are in Gardner, seven (7) are in Winchendon and three (3) are in Athol. The locations of these sites in each community overlap the Environmental Justice populations present in these three communities

## Chapter 5 - Infectious Disease

- Gardner, Westminster and Winchendon saw increases in Chlamydia cases from 2014 to 2016. All other communities saw declines. There were significantly more cases of Chlamydia in Heywood Hospital's Service Area than Athol Hospital's
- The Service Area saw an increased rate of Syphilis per 100,000 residents from 2014 to 2016 jumping from 0.0 to 10.7
- Gardner and Athol saw notable increases in Hepatitis C cases from 2014 to 2016 with Gardner jumping from 34 to 60, and Athol jumping from 18 to 23
- From 2014 to 2016, there were only eight (8) reported cases of HIV in the Service Area
- From year to year, Athol (average of 31), Gardner (average of 47), and Winchendon (average of 23.3) had the highest number of flu cases, all experienced increases in flu cases between 2014 and 2016.
- Between 2013 and 2017, incidences of C-difficile have increased 178%.

## Chapter 6 - Injuries and Violence

- There were 67 injuries and poisonings deaths in the Service Area in 2014, with 19 coming in Gardner and 16 in Athol; a total of 52% of overall injuries and poisonings deaths.
- The rate of injuries and poisoning deaths for the Service Area is 78.53, which is higher than the State rate of 68.63.
- The death rate due to self-inflicted injuries and poisonings for the Service Area is 19.92 which is considerably higher than the State rate of 9.26.
- Self-inflicted injuries and poisonings deaths were equal to the suicide statistics for each town
- There were just five (5) motor vehicle related deaths in 2014 in the Service Area
- There were 19 weapons-related deaths in the Service Area from 2012 to 2014
  - Athol Hospital's Service Area exhibited a firearms-related death rate of 13.1 per 100,000; nearly four times the Massachusetts rate of 3.4 per 100,000
  - Heywood Hospital's Service Area exhibited a firearms-related death rate of 4.7 per 100,000
- As of the first quarter of FY2016, there were 3,741 children in caseload between both DCF offices, with 2,568 in North Central and 1,172 in Greenfield. Of those children in caseload, only 823 (22%) are in placement.
- 91% of children in placement came from homes where DCF investigations were able to substantiate that abuse or neglect was occurring in the home.
- There was a 26% increase in restraining orders from 2005-2016 in the three district courts in the Service Area – Gardner, Orange and Winchendon District Courts
- Orange District Court had the highest increase in restraining orders in the Service Area at 46% over 12 years compared to the MA rate increase of 37%.

## Chapter 7 - Behavioral Health and Substance Misuse

- In 2017, 13,978 (47%) of Heywood Healthcare's combined 29,720 ER patients had a prior mental health diagnosis on their record at discharge.
- Of Athol Hospital's 6,479 patients, 3,284 (50.7%) had mental health problems on their record.

- Of Heywood Hospital's 23,241 ED visitors, 10,694 patients (46%) had mental health problems on their record in 2017.
- Winchendon (72.6 per 100,000), Westminster (60.4 per 100,000) and Athol (44.1 per 100,000) had the highest mental disorder death rates in the Service Area.
- There were 60 suicides in the Service Area from 2012 to March 2018
- There were 21 suicides in Gardner and 10 in Athol from 2012 to March 2018 accounting for just over half of all suicides in the entire Service Area
- Overall there were 17 suicide deaths in Athol Hospital's Service Area and 43 in Heywood Hospital's Service Area from 2012 to March 2018
- Substance misuse diagnoses of ED patients are most common for people in the 25 to 34-year old groups at both Athol (75.9%) and Heywood (60.4%) Hospitals.
- Overall, 35.5% of Athol Hospitals ED patients had substance misuse diagnoses on their record at discharge compared to 27.2% of Heywood Hospital ED patients
- Compared to the MA smoking rate (15.5%), the four (4) communities in our Service Area with the highest smoking rates were Athol (24.4%), Gardner (24.2%), Orange (24.1%) and Winchendon (23.7%). With the exception of the Town of Erving, these four (4) communities with the highest smoking rates also had the four (4) lowest median income levels and are also four (4) of the five (5) most populous communities throughout the Service Area.
- From 2012 to 2016 there were a total of 86 opioid-related fatal overdoses throughout the Service Area communities.
- The annual opioid-related fatal overdose totals more than doubled from 10 in 2012 to 23 in 2016.
- Overall, the overdose rate per 100,000 residents for the entire Service Area increased from 11.86 to 26.96 from 2012 to 2016, comparable to the MA rate increasing from 11.31 to 31.06.
- In 2016, the Heywood Hospital Service Area's overdose rate was 31.8 per 100,000 and Athol Hospital's Service Area was 17.89. Four communities had greater rates: Royalston at 73.75, Templeton at 61.49, Gardner at 44.05, and Ashburnham at 32.41.

## **Chapter 8 – Wellness, Chronic Disease, and Mortality**

- In 2017, 415 patients treated at Athol Hospital Emergency Department (ED) had an obesity diagnoses on their record at discharge, totaling 6.4% of all patients seen and 3,743 patients treated at Heywood Hospital ED had an obesity diagnoses on record, totaling 16.1% of all patients seen.
- According to the Food Access Research Atlas, large areas of Orange, Athol and Gardner qualify as food deserts and according to the USDA's standards, almost the entire city of Gardner is considered a food desert. Recently with the loss of their one grocery store, Winchendon has also become a food desert and Athol had a grocery store developed improving access in that community.
- At Gardner High School, roughly 50% of male students reported meeting the recommended levels of physical activity while just 39% of female students reported the same
- Gardner had the highest diabetes rate at 9.53 per 100 residents
- At Athol Hospital, 78.6% of children younger than five (5) treated in the ED have an Asthma diagnoses on record. At Heywood Hospital ED, 58.4% of children younger than five (5) and 40.2% of children age five (5) to 14 have an Asthma diagnoses on record.
- Throughout the Service Area, eight (8) of the 15 communities have a higher prevalence of asthma among K-8 students when compared to the State (12.2%).

- Athol Hospital's ED discharged 2,753 (42.5% of ED patients) patients and Heywood Hospital's ED discharged 10,931 (47% of ED patients) with a hypertension diagnosis in 2017.
- Gardner's Cerebrovascular Disease (CD) death rate was nearly four times higher than the Massachusetts average in 2015. Winchendon's CD death rate was nearly twice as high as the Massachusetts rate
- Orange had the highest rate of cancer deaths at 291.5 per 100,000, followed by Gardner at 244.0 and Athol 240.1, compared with the MA rate of 152.8.
- The Service Area has a greater rate of lung cancer deaths at 93 pers 100,000 compared with the State rate of 39.0. Orange had the highest lung cancer death rate at 105.9 followed by Westminster (105.7) and Templeton (102.1)
- Overall, the Service Area has a lower mortality rate than the State but four (4) communities have higher rates than the State; Athol (977.3), Gardner (873), Orange (1,040) and Winchendon (887.1).
- Wendell's premature mortality is nearly double that of the Service Area average and more than three (3) times that of the State average.
- Premature mortality rates were higher than the State in nine (9) Service Area communities