Soldiers' Home in Holyoke

Rapid Planning Report

Needs Assessment and Implementation Roadmap

NOVEMBER 11, 2020

Executive Office of Health and Human Services
Department of Veterans Services

DCAMM

PAYETTE

Since its construction in 1952, the Soldiers' Home in Holyoke has been a beacon in Western Massachusetts for Veterans needing health care services. The Home was built as the second Soldiers' Home in Massachusetts, to ensure accessibility for Veterans living in Western Massachusetts, where few facilities and services for Veterans existed at that time. The Home sits atop Cherry Hill with a panoramic view of the Seven Sisters Range, Mount Tom, and the surrounding Pioneer Valley. When the Home was established, the main focus of service was the provision of in hospital and outpatient services to Veterans returning from WWI and WWII. Facilities included a hospital, operating room and outpatient department. A Domiciliary program was added in 1972 to support the needs of Veterans at risk of homelessness, yet not needing long term care services. Over time, the hospital transitioned to a long-term care facility. An addition was done in 1972 and several renovations were completed to meet needs of Veterans needing memory care and hospice services.

In response to the growing need of WWI and WWII Veterans needing long term care, the Home's bed count increased over the years. But, as VA standards regarding square footage and privacy changed, the need to reduce beds became necessary. As more available housing and outpatient service options increased in western Massachusetts, the demand for domiciliary services has diminished over the last several years. However, the Home remains a center of the community for Veterans and affiliated groups to gather and provide support to the region's Veterans.

The preferred option for all aging adults, including our Veterans, is to remain home or in the community. However, if Veterans require long term care and safety becomes a concern, the Soldiers' Home meets that need. Soldiers' Homes provide care and supportive services to Veterans with dignity, honor and respect. Soldiers' Homes are also unique as they recognize the selfless service of our Veterans to the Nation and Commonwealth every day.

Updated infrastructure, including layout and HVAC systems, would be important tools to combat COVID and other infectious diseases. While interim measure to reduce numbers of beds in rooms have been helpful and refresh projects have addressed these issues in the short term, the Home and its Veterans of today and tomorrow need a longer-term solution that is more in line with small home design.

This report represents the culmination of research gathered by a broad spectrum of experts, Veterans organizations and other stakeholders through focus groups, interviews, and surveys. These recommendations reflect the summary and analysis of those engagements, as well as demographic data and analysis of available and comparable services in Western Massachusetts.

Our goal is a Soldiers' Home in Holyoke that meets or exceeds all the regulatory standards for our Veterans needing Long-Term Care while providing the best possible dignified, comfortable, and safe environment for many years to come.

We wish to thank all those who participated in this study. Your participation, candor and commitment will lead to a new future for the Soldiers' Home in Holyoke so our Veterans continue to receive care that is in keeping with the Home's mission of "Care with Honor and Dignity ".

Cheryl Lussier Poppe, Secretary Department of Veterans Services

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Residents of the Soldiers Home in Holyoke

Resident Family Members of the Soldiers' Home in Holyoke
- Cynthia Abraham
- Kathleen Brady
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And To All Those Who Anonymously Participated In The Rapid Planning Study On-Line Feedback Survey

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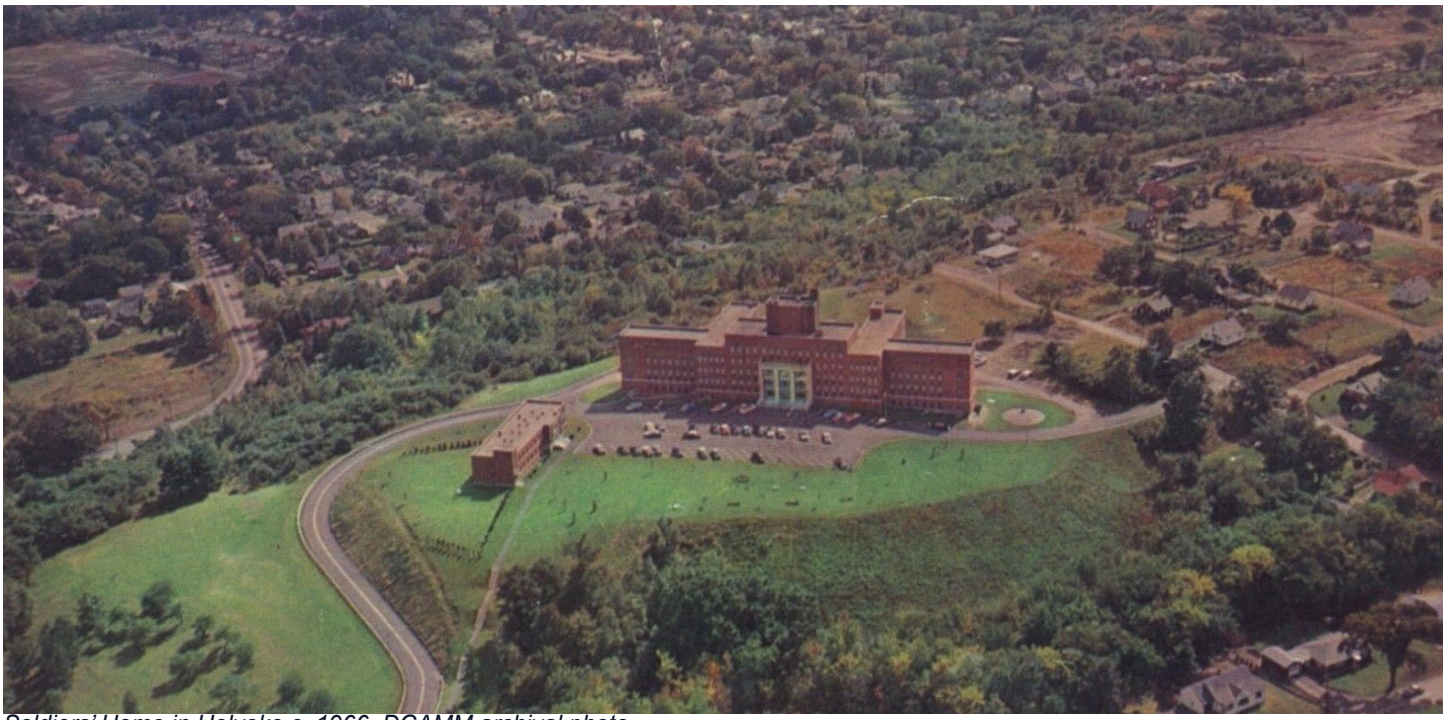
EXECUTIVE SUMMARY

In September 2020, the Commonwealth's Division of Capital Asset Management and Maintenance (DCAMM) retained the services of Payette Associates to evaluate the future of 70-year old Soldiers' Home in Holyoke campus. The goal was to recommend what programs and services the Home should provide, compare them to the current and future needs of the Veterans in the Commonwealth, establish the potential size of those programs based on current and future needs, and to estimate their potential cost so that the Commonwealth could begin the next steps required to update the facility.

We began this study with the collection and assessment of data that would assist us in understanding how the facility usage is likely to change in the future. To evaluate this, our data collection efforts covered a wide range of topics, such as Veteran population trends in the Commonwealth, types of services Veterans may need in the future, other care providers in the area who serve the Veterans community, and existing program and service usage rates at the Home. Because we knew the Home would require significant renovation, we also collected and assessed information on the condition of the existing building and property, potential funding sources for any changes, and other information we believed would impact the future plans for the Home.

Our second assessment effort was to engage a wide range of stakeholders who have an interest in the future of the Home. Our outreach to stakeholders included workshops, as well as a public survey to retrieve the broader community's feedback. We held stakeholder meeting with Veteran residents of the Soldiers' Home in Holyoke and their family members, Soldiers' Home staff and union representatives, the Soldiers' Home in Holyoke Board of Trustees, local and statewide Veterans organizations, community leaders from the City of Holyoke, state legislators, regional representatives from the Federal Veterans Administration (VA) and State Home Construction Grant Program team, and leadership from the Department of Veterans' Services and the Executive Office of Health and Human Services (EOHHS). Each of these groups provided us with insights into the needs and desires of the Home, its residents, and the larger community, which helped shape our recommendations.

Based on the data we evaluated and the input we received from the stakeholders, we came to a conclusion and provide herein a recommendation for substantial changes to the Home. Our recommendation is centered on how the Home can most impactfully provide needed services to Massachusetts Veterans, while also assessing programs and services that were requested by Veterans, their families, and the community. Our recommendations are balanced against the data we collected and evaluated, including the anticipated decline in the number of Veterans in Massachusetts over the coming decades, services that are already provided in the area for Veterans, the capacity of the existing site to support the proposed services (such as parking and traffic impacts) and other data that informed our recommended program size. Overall, these changes will provide expanded Long-Term Care options for Veterans in the Commonwealth.



Soldiers' Home in Holyoke c. 1966, DCAMM archival photo

In summary, our recommendation is that the Home be renovated or replaced to provide the following;

- ***Adult Day Health***: The Home should add Adult Day Health services to serve up to 40 Veterans on any single day, with up to 120 enrolled in the program. This service will add an option for Veterans and their families by providing Veterans with a place to go one or more days of the week where they can socialize, get meals, and receive healthcare exams, treatments, therapy, and other evaluations they may need, all while providing a small respite for family care providers. The addition of this service broadens the Long-Term Care services the Home will offer, which will allow it to have a greater impact on the Veterans' Community.

- ***Nursing Home / Skilled Nursing Facility***: The existing 235-bed Nursing Home should be significantly renovated or replaced to provide a slightly smaller facility of 180 to 204-beds. This new facility should be built in the Department of Veterans Affairs "Small House" or similar model, which houses residents in single rooms with private baths in smaller residential style care units of 10-16 beds each. More information regarding this bed count revision is provided in the body of this report. A key driver in moving to the Small House Model of care is to adapt the Home to the future changes in Veterans' needs, including an increased female population and the need for small specialized care units.

- ***Outpatient Services***: The existing outpatient services provided by the Home is recommended to be phased out. These programs (dental, optometry, ophthalmology, podiatry, hematology, and oncology) are small, significantly underutilized, and have limited reimbursement options for services provided. The VA Western Central Massachusetts Healthcare System has outpatient facilities in Northampton, Pittsfield, Greenfield, Fitchburg, and Worcester, and will soon expand its Springfield facility, which will more than compensate for any small outpatient programs lost at the Soldiers' Home in Holyoke. We also found that an outpatient facility, if provided, would generate traffic and parking needs that would hamper the recommended programs above and which the existing property cannot support.

- ***Domiciliary and Supportive Housing***: The existing 30-bed Domiciliary, which currently houses 21 residents, is recommended to be phased out over time as residents move to other locations. The Domiciliary program has not evolved to meet the changing needs of Veterans or care models for residential rehabilitation programs, a void which has been filled by other nonprofit programs in the area. As a result, the program as configured does not provide as meaningful a service as other recommended programs at the Home. Its continued operation limits the expansion of other needed services that we have identified.

Construction on the existing Soldiers' Home site will present logistical challenges due to its physical constraints and the need to maintain uninterrupted operation to serve our Veterans. By substantially modifying and right-sizing the facility, and by revising the services and programs that the Soldiers' Home in Holyoke provides, the Home will position itself to better serve the evolving needs of our Veterans in Massachusetts, while aligning the services it provides with other Veteran-oriented service providers in the area, including the VA System and the many nonprofit organizations that serve Veterans.

The remainder of this report provides additional depth into the nature of this study, the data obtained, and the conclusions we drew that resulted in the recommendation provided above.

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Soldiers' Home in Holyoke as seen from Interstate 91, Wikimedia Commons

In September of 2020, the Commonwealth of Massachusetts retained the services of Payette Associates to undertake a 12-week rapid planning phase for the renewal of the Soldiers' Home in Holyoke.

The goal of the rapid planning effort was to perform an updated needs assessment that could provide direction for the facility renewal, including the services provided at the facility, their size, the extent of facility renovation or replacement, and the potential capital and operational costs of the renewed facility. During the study, many potential programs of various sizes were considered, and this report will outline the information gathered for those potential programs.

The information needed to evaluate these programs was gathered through a varied methodology of approaches and sources, including:

1. A ***demographic study*** to identify future Veteran needs, regional needs, and providers of similar service in the area
2. Evaluate ***potential programs*** suggested by the demographic study;
3. Workshops and online surveys with various ***stakeholder groups*** who had an interest in the outcome of the study, including residents, families, staff, legislators, local and statewide Veterans organizations, the Board of Trustees, various agencies of the Commonwealth and others;
4. Discussions with of the ***State Home Construction Grant Program***, a part of the Veterans Administration that works with State Soldiers' Homes to provide services for Veterans and who, when services align with the national VA goals, provide a portion of funding for the construction and operation of facilities;
5. The ***capacity of the site*** during phased implementation of the plan and ultimately for the parking, drop-off, service, and outdoor recreational areas that support the building;
6. The potential ***construction cost*** and sources for funding;
7. The potential ***operational costs*** and sources for funding;
8. Considerations for ***infection control*** measures that need to be incorporated into the new facility;
9. The ***condition of the existing facility*** and its potential for renovation into a state-of-the-art facility; and
10. The ***design standards*** under which the new facility is planned and operated, such as the Small House Model or a more traditional Long-Term Care model, single versus double rooms, etc.

The outcome of this planning effort was determined by a balancing of all the information gained over the duration of this 12-week study and not by any one fact uncovered over the duration. It is not a goal of this study to provide an actual design for the new facility, but instead to establish a roadmap for the facility renewal and recommend its programs, size, and potential costs.

PROGRAMS EVALUATED

Several potential programs for a renewed facility at the Soldiers' Home in Holyoke were evaluated during the rapid planning stage. The list of programs evolved during the early planning effort as information about needed or desired services were received. The programs studied fell into four categories:

- *Nursing Homes / Skilled Nursing Facilities*
- *Adult Day Health*
- *Outpatient Services*
- *Domiciliary and Supportive Housing*

Soldiers' Home in Holyoke Gazebo, DCAMM

NURSING HOMES / SKILLED NURSING FACILITIES

Long-Term Care facilities such as Nursing Homes and Skilled Nursing Facilities provide a wide range of health and personal care services including 24-hour supervision, nursing care, meals, assistance with daily activities, and rehabilitation services such as physical, occupational, and speech therapy. While some Nursing Homes provide short-term care after hospitalization, most nursing home residents reside long-term in the facility due to ongoing physical or mental conditions that require constant care and supervision. The United States Veterans Affairs State Home Construction Grant Program (SHCGP), which provides operational reimbursements to the Soldiers' Home in Holyoke and may assist financially in its renewal should an application for a grant be accepted, defines this service as:

> *Nursing home care means the accommodation of convalescents or other persons who are not acutely ill and not in need of hospital care, but who require skilled nursing care and related medical services.*

Prior to the COVID-19 pandemic, the Soldiers' Home in Holyoke operated as a 235-bed Nursing Home. The Home has recently been reconfigured to operate at a reduced bed count due to restrictions raised by the pandemic. Nursing Home care is a core element to services the Home provides. One of the goals of this planning effort is to determine the appropriate size for that service, while also identifying how best the facility can be designed and configured so that it can adjust for future changes in the type and levels of care that will be required as the Veteran population continues to evolve.

ADULT DAY HEALTH

Adult Day Health (ADH) programs are non-residential facilities that serve older adults who continue to reside and receive care at home. ADHs typically operate during normal business hours five days a week, while some centers offer additional services during evenings and weekends. ADH's ensure that an individual receives care in a safe environment, providing respite to the individual's caregiver(s)while extending the time an older adult can receive care at home.

ADH programs provide meals, meaningful activities, and daily living needs for older adults. Many facilities are affiliated with Long-Term Care and skilled nursing facilities, and as such, these facilities can help aid adults, their families, and care providers with the evaluation and transition from home to Long-Term Care. Some facilities also provide short-term rehabilitation following a hospital discharge.

The VA State Home Construction Grant Program (SHCGP) definition of an Adult Day Health Facility is very similar to the non-VA Adult Day Health programs, stating:

> *Adult day health is a therapeutically oriented outpatient day program, which provides health maintenance and rehabilitative services to participants. The program must provide individualized care delivered by an interdisciplinary health care team and support staff, with an emphasis on helping participants and their caregivers to develop the knowledge and skills necessary to manage care requirements in the home. Adult day health care is principally targeted for complex medical and/or functional needs of elderly Veterans.*

There are three main types of Adult Day Health Facilities,

1. Social Care
2. Medical Care
3. Memory Care

Social Care Facilities focus primarily on social interaction and prevention services, **Medical Care Facilities** provide the same as Social Care Facilities, but also provide medical care such as skilled assessment, treatment, or rehabilitation services, and **Memory Care Facilities** provide the services of Medical Care Facilities but are dedicated to Alzheimer's care. Statistics show the average Adult Day Health participant is 76 years old, has a family with adult children, and 50 percent have some form of cognitive impairment and require assistance with at least two daily living activities.

The Soldiers' Home in Holyoke does not currently provide Adult Day Health Services.

OUTPATIENT SERVICES

The term Outpatient Care describes any medical service that does not require admission to a hospital, nursing home, or similar facility. It can include primary care, specialty care, diagnostic tests or assessments, imaging, therapy, screenings, surgery, mental health assistance, and long-term assistance in the management of chronic conditions. The Soldiers' Home in Holyoke currently provides Dental, Optometry, Podiatry, Ophthalmology, Hematology, and Oncology outpatient clinics on their site. The outpatient clinics are a small program and utilization is low.

Adult Day Health, especially the medical and dementia types, is an outpatient service that can provide significant services to those enrolled in that program. Other than the definition for Adult Day Health provided in the section above, the SHCGP does not define other outpatient services because such services are not supported by the program, either for capital funding or operational reimbursement.

It is common for Nursing Homes to provide specialty care for their residents through visiting specialists. Such services are considered part of nursing care. It is less common, but not unheard of, for Long-Term Care facilities such as Nursing Homes and Skilled Nursing Facilities to provide outpatient services to non-residents of the home. When such services are provided, they usually align with the mission of the facility. Adult Day Health programs are a typical example, but other services could include:

- Geriatric primary care
- Specialty outpatient care such as audiology, osteoporosis screenings and care, or Memory Care, which can include behavioral and cognitive neurology, dementia care management, facility and caregiver support and resource center.
- Outpatient therapy, including assessments for various age-related physical disorders, physical and occupational therapies, and management for chronic conditions
- Senior fitness, including a fitness facility able to evaluate medical histories, assess physical condition, and provide a fitness program geared towards for seniors.

Soldiers' Home in Holyoke Domiciliary, Payette

DOMICILIARY AND SUPPORTIVE HOUSING

There are several types of supportive housing that can be provided for those who require daily physical or mental health assistance, but do not require 24-hour care of a nursing home. While not the same, the VA's Domiciliary care and the more well-known Assisted Living are two models that were considered for Holyoke.

Domiciliary care is similar but is not specifically geared towards older adults. The VA defines Domiciliary Care as follows:

> *Domiciliary care means providing shelter, food, and necessary medical care on an ambulatory self-care basis (this is more than room and board). It assists eligible Veterans who are suffering from a disability, disease, or defect of such a degree that incapacitates Veterans from earning a living, but who are not in need of hospitalization or nursing care services. It assists in attaining physical, mental, and social well-being through special rehabilitative programs to restore residents to their highest level of functioning.*

Assisted Living Residences (ALRs) are not health care facilities. ALRs are generally for older adults who need help with daily care, as they may be in early stages of dementia or suffer from mobility or cognitive issues that require occasional supervision. Residents usually live in their own apartments or rooms and share common areas. Facilities typically provide a few levels of care to address the range of resident needs. ALRs usually provide up to three meals per day, assistance with some personal care, help with medications, housekeeping, laundry, 24-hour supervision, security, on-site staff, and social and recreational activities.

While assisted living is generally defined by residents who have age related mobility or cognitive impairments, the Domiciliary care is designed to treat additional conditions such as substance abuse, PTSD, sexual abuse, mental health needs, or other educational, social, or vocational needs. They may also help those who have comorbid medical or mental health needs, which can add to the complexity of the care they can require. Domiciliary care is intended to be a short-term recovery and assistance program, while assisted living is more independent, longer term support usually provided prior to admission to a nursing home.

The Soldiers' Home in Holyoke operates a small Domiciliary, established in 1972, that currently serves 21 Veterans, with a maximum total capacity of 30 Veterans. The current Domiciliary care program does not fall into either of the above categories, as it is not providing the structured programs necessary to be considered supportive housing for specific needs or an assisted living facility. It was originally intended to provide short-term housing to support Veterans in need of temporary help, but over time has become long-term housing with limited social and medical care. The Domiciliary program is currently housed in a separate building adjacent to the nursing home, in what was originally built as the nurses' residence hall.

DEMOGRAPHIC STUDY

In support of the study effort, and to meet the requirements of the SHCGP, Payette engaged The Innova Group to produce a Demographics Needs Assessment analyzing the evolving Long-Term Care needs for Veterans in the Commonwealth, and provide data-driven planning scenarios that would inform the implementation roadmap for a facility renewal.

A demographic study looks at projected population trends and needs for specific services within a region and compares that information to services already provided or projected to be provided within that region. The goal is to prove that a facility, if built, would be well utilized in the future, while suggesting an appropriate size for that facility. Many programs that provide financial services for facility expansion, like the VA's Soldiers' Home Construction Grant Program, require a recent demographic study be conducted as a requirement for funding assistance.

A demographic study for the Commonwealth's Soldiers' Homes was completed in 2016. Other studies evaluated what services were appropriate for aging Veterans in Massachusetts. This rapid planning effort reviewed those studies and analyzed the most current data to reconfirm the results of previous studies. Most of the studies focused on Long-Term Care, but other studies investigated potential complementary services at the Home.

Long-Term Care

For Long-Term Care background information, we reviewed the following studies:

- 2013 MIT study: Massachusetts Institute of Technology (MIT) Department of Urban Studies and Planning, entitled "The Current and Future Long-Term Care Needs of Massachusetts' Veterans" (Glasmeier et al.)
- 2016 UMass study: Massachusetts Veterans' Long-Term Care and Housing Master Plan Commission Report
- 2016 Veterans' Services and Soldiers' Homes Assessment, Report for the Commonwealth of Massachusetts (Public Consulting Group)

Demographic Data was drawn from the following sources:

- National Center for Veteran Analysis and Statistics Population Tables, FY2018 to FY2048
- American Community Survey (ACS) Public Use Microdata Sample (PUMS) 5-Year Estimates 2014-2018
- DVA National Center for Veterans Analysis and Statistics - Mortality Rates and Life Expectancy of Veterans from 1980-2014, April 2017
- Soldiers' Home in Holyoke Census Data, FY2019

Adult Day Health

For Adult Day Health background information, we reviewed following studies:

- 2013 Adult Day Health / Dental Expansion Study and Recommendation
- 2014 Preliminary Program for HSH Adult Day Health by Deitz and Company
- 2015 DCAMM Building Study, Adult Day Health, Holyoke Home
- 2016 UMass study: Massachusetts Veterans' Long-Term Care and Housing Master Plan Commission Report

Domiciliary and Supportive Housing

While previous studies looked at types of care and housing that Veterans may need prior to long-term care, particularly due to issues Veterans commonly face following their service, Domiciliary and Supportive Housing needs were not reviewed as part of those previous studies. For this study, we looked at how Domiciliary and Supportive Housing programs have evolved since the Home's program was established in the 70's, and how those programs are administered today by the VA and non-profit providers within the catchment area.

Outpatient Services

Other than Adult Day Health, the earlier demographic studies did not look at what types of outpatient services should be provided on the Soldiers' Home campuses. The outpatient clinic at the Soldiers' Home in Chelsea was closed due to high costs and low utilization, as well as the opening of a new VA outpatient clinic in the area. For this study the team referenced FY2019 utilization data provided by the Soldiers' Home in Holyoke.

STAKEHOLDER ENGAGEMENT

At the start of the rapid planning effort, the Payette team led efforts to engage the public and members of the Soldiers' Home in Holyoke community in a comprehensive outreach strategy. The first means of engagement was through an online survey that was deployed and hosted on the EOHHS website. This survey became active on September 4th, 2020. The second level engagement was through a series of virtual workshops that facilitated discussions between the Payette team and various representatives from the major stakeholder groups with direct interest in the future of the Soldiers' Home in Holyoke.

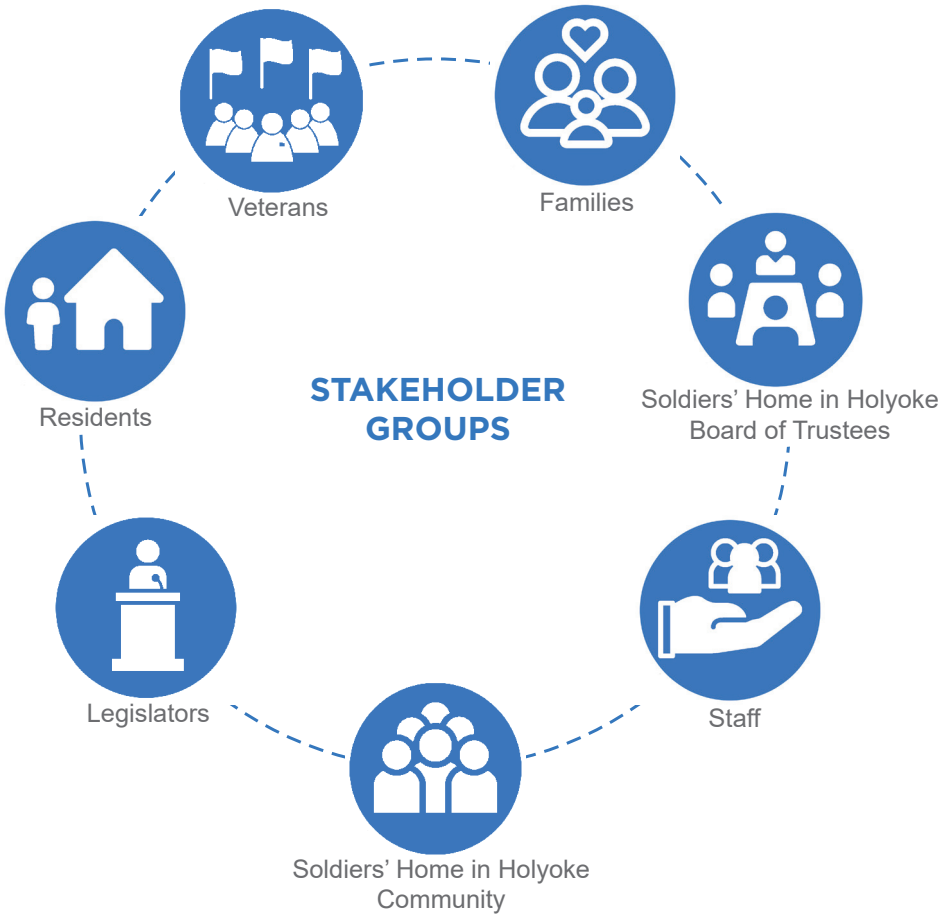
Survey

The Soldiers' Home in Holyoke team developed and deployed an on-line survey to gain critical feedback from the public on the future of the Home. The survey consisted of a mix of multiple choice and open questions that was designed to understand the specific perspectives of the following key demographic groups: residents, families, non-resident Veterans and federal/state/local officials. All other respondents could self-identify as 'other'.

Workshops

Online, virtual meeting workshops with the major stakeholder groups began on September 10th, 2020 and continued until early October 2020. During these workshops, the Payette team presented the goals of the rapid planning project and posed key questions for the stakeholders to consider while providing their feedback. The workshops also allowed time for participants to provide their personal experience and vision for the Home.

In addition to meeting with Soldiers' Home in Holyoke's residents and family members, the Payette team met with current staff and members of the Soldiers' Home's Board of Trustees, local and statewide Veterans organizations, staff union representatives, members of the state Legislature, and local elected officials.



Soldiers' Home in Holyoke, DCAMM

STATE HOME CONSTRUCTION GRANT PROGRAM (SHCGP)

The VA State Home Construction Grant Program (SHCGP) is administered by the U.S. Department of Veterans Affairs (VA). The VA partners with the States to construct, renovate, or repair State-owned and operated nursing homes, domiciliaries, and/or Adult Day Health facilities for Veterans.

While the States operate the facilities, the VA may participate in up to 65 percent of the cost of construction or acquisition of State nursing homes or domiciliaries, or for renovations/repairs to them. The VA then provides inspections and audits the home through the VA medical center of jurisdiction. Once a home is operational, the VA may also provide per diem payments to States to care for the eligible Veterans in the State Homes.

SITE CAPACITY

One factor that will impact the size and scope of any renewal at Holyoke is the capacity of the site, specifically how much can the site fit for a proposed building. The evaluation of site capacity also includes required services such as parking, drop-off zones, loading zones, pedestrian circulation, landscape buffers, outdoor recreation areas, and stormwater treatment.

For any given site, the cost of increasing the project size and density eventually exceeds the value of doing it on that site. As the proposed program increases in size, the cost of providing a building to serve that program increases in a non-linear fashion, with each additional square foot costing more than the previous. For example, if a 50,000 square foot building were to cost $550/sf to build, a 100,000 square foot building might cost $650/sf, and a 200,000 square foot building $750/sf. Generally, larger buildings are more expensive to build. In addition, inserting a larger building on an existing site is more disruptive and results in higher costs due to necessary workarounds and phasing requirements to keep the existing facility safe and operational. All of these factors were considered in analyzing the site for the potential impacts of any facility renewal.

Project Location

During this study, the team chose not to consider any new locations for the Soldiers' Home, as the time for identifying, and evaluating alternate properties would delay the renewal process significantly. We would only consider another property if it became clear the current property would not work, and that was not the case. We noted that the property's proximity to Interstates 90 and 91 was ideal to serve Veterans and their families from a large region, and it would be difficult to find a similar property with such ease of access.

Special Note: We consider whether to renovate the existing building or to replace it. It is worth noting that the question affects site capacity. If the existing building remains, the ability to decrease the building footprint to gain additional parking is significantly reduced, and site capacity may therefore be further limited in a building renovation scenario.

CONSTRUCTION COSTS

Without any plans for an updated Holyoke facility, potential costs can be based at this time by extrapolating the costs to build the Soldiers' Home in Chelsea. Based on those costs, escalated to Q2 2023 projected costs, we estimate each bed in a new facility would be preliminarily budgeted around $1.42M. **If we rely on the Grant Program for funding, we must remember this program is small, with an annual grant budget around $100M and numerous already approved projects awaiting funding. The larger our proposed project, the higher the risk for delayed funding approvals.**

OPERATIONAL COSTS

Changes in operational costs generally look at two factors, staff costs and energy costs. Staff costs evaluate staff level changes required when a new or modified facility becomes operational. Energy costs evaluate what will it take to provide the new or modified building with the energy it needs to operate, such as gas, electricity, and water.

The number of staff required in a nursing facility varies based on the level of care provided. It is often evaluated using the metric of the number of nurse hours per resident day. For example, if a facility runs at 3.3 nursing hours per resident day and it has 40 residents, it needs 132 hours of nursing time per day (3.3 x 40), or 16.5 nurses working 8-hour shifts in a 24-hour period (132 ÷ 8). Administration, maintenance, and facility staff are not included in this number.

A new or significantly renovated building will be more energy efficient than a partially renovated one due to current code requirements, if no other measures are pursued.

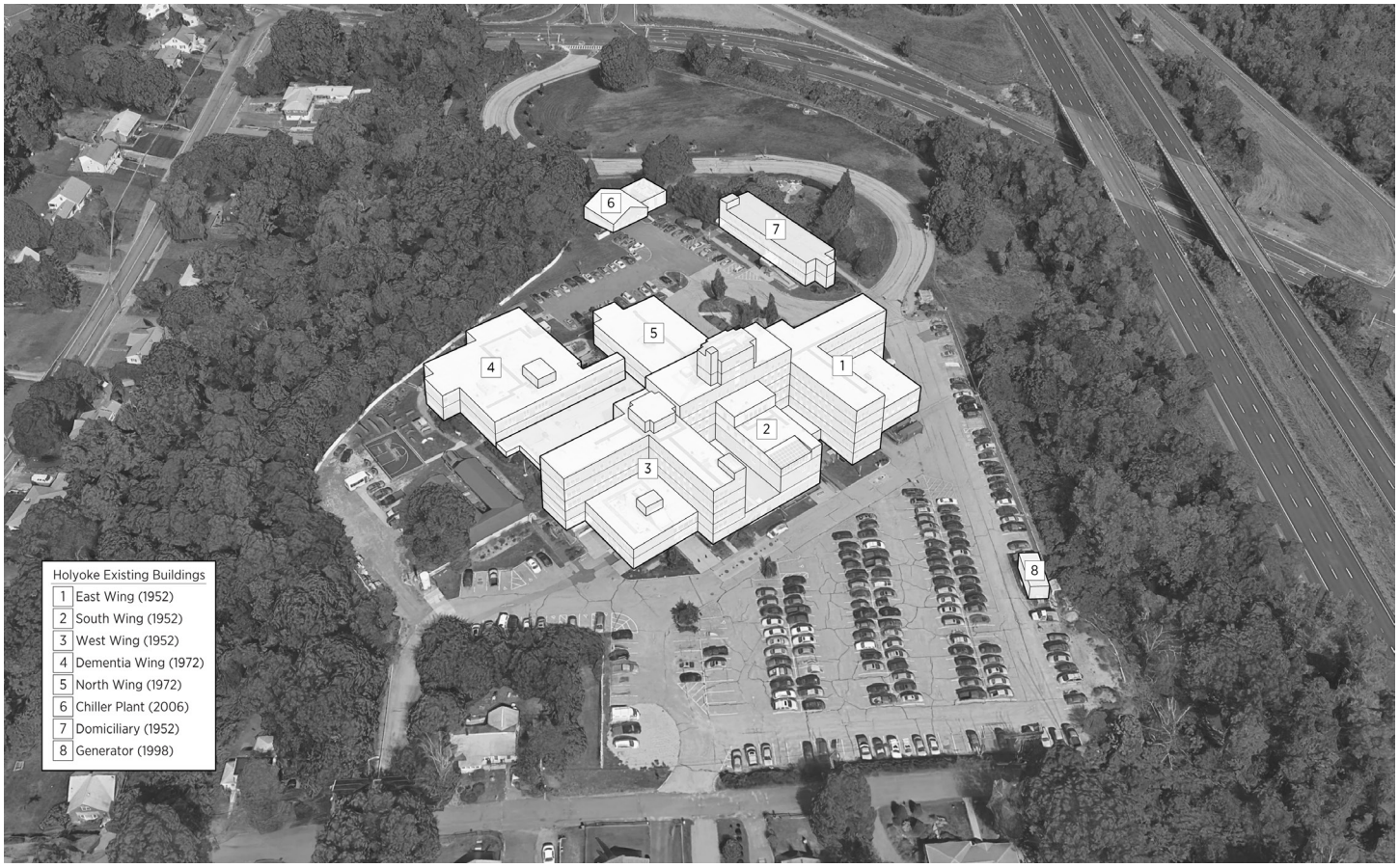
Currently, we did not evaluate the potential operational cost changes to the Soldiers' Home for two reasons. First, the pandemic has already required staffing levels to change at the Home, which has increased the operational costs outside of any building modifications. Current and future staffing levels will need to be assessed against the proposed modifications to the Home. Second, currently we do not have adequate information to evaluate changes in energy usage, so estimating that cost is currently not possible. Operational costs will be evaluated further during the VA SHCGP application phase for the new or renovated building.

INFECTION CONTROL MEASURES

Since the beginning of the COVID-19 pandemic, many facilities across the country have had to reconsider infection control throughout their building. We made sure to take this into account. A new building designed to current code / regulatory requirements and contemporary best practice design standards will greatly improve infection control measures. An overview of potential additional measures is discussed later in this report.

CONDITION OF EXISTING FACILITY

The original Soldiers' Home in Holyoke was completed in 1952, a six-story 148,995 SF facility consisting of what are now the East, West, and South wings, as well as a nurses' residence which was renovated in 1972 to serve as the Veterans' Domiciliary. The 1952 facility received significant renovations along with a major addition in 1972, adding approximately 78,920 Square Feet, including today's North wing, Physical Therapy, Occupational Therapy, support space, and dementia units. A generator enclosure was added in 1998 and new Chiller Building was constructed in 2006. The team reviewed existing drawings and conducted a walk-through of the current facility, while also reviewing previous building studies of the Home to assess the current state of existing conditions.



DESIGN STANDARDS

There are several applicable design standards that could be applied and/or provide guidance for a future Soldiers' Home in Holyoke facility.

105 CMR Department of Public Health – Standards for Long-Term Care Facilities

At a minimum, the facility should be designed to comply with 105 CMR 150, Department of Public Health – Standards for Long-Term Care Facilities, for nursing care facilities within The Commonwealth. Of the seven levels of facilities defined within the 105 CMR, the requirements for a Level II and Level III Skilled Nursing Facilities would be the most applicable to the current and anticipated future resident population of the Soldiers' Home.

> **(Level II) Skilled Nursing Care Facilities** shall mean a facility or units thereof that provide continuous skilled nursing care and meaningful availability of rehabilitation services and other therapeutic services in addition to the minimum, basic care and services required in 105 CMR 150.000 for residents who show potential for improvement or restoration to a stabilized condition or who have a deteriorating condition requiring skilled care.
>
> **(Level III) Supportive Nursing Care Facilities** shall mean a facility or units thereof providing routine nursing services and periodic availability of skilled nursing, rehabilitation and other therapeutic services, as indicated, in addition to the minimum, basic care and services required in 105 CMR 150.000 for residents whose condition is stabilized to the point where they need only supportive nursing care, supervision and observation.
>
> *- From 105 CMR 150 Department of Public Health – Standards for Long-Term Facilities*

Department of Veterans Affairs - Small House Design Guide

The Department of Veterans Affairs (VA), Small House Model (formerly known as 'Community Living Centers') is the design standard that is applied to all VA residential living facilities. The Small House Model is organized around 'homes' which shall be comprised of 10, 12, or 14 single resident rooms. In addition to supportive spaces for staff to manage and care for residents, each home is required to have shared amenity spaces which include living rooms, dining rooms, and kitchens. In addition to the home amenities, a 'Neighborhood' shall be provided for every 3 Homes. The neighborhood contains additional shared support and amenity spaces such as activity spaces and examination/therapy spaces. Though not required, larger facilities can have Community Centers which can provide shared areas for the full facility including exercise spaces, meditation areas, hair care and retail shops.

Soldiers' Home in Holyoke, DCAMM

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DEMOGRAPHIC STUDY

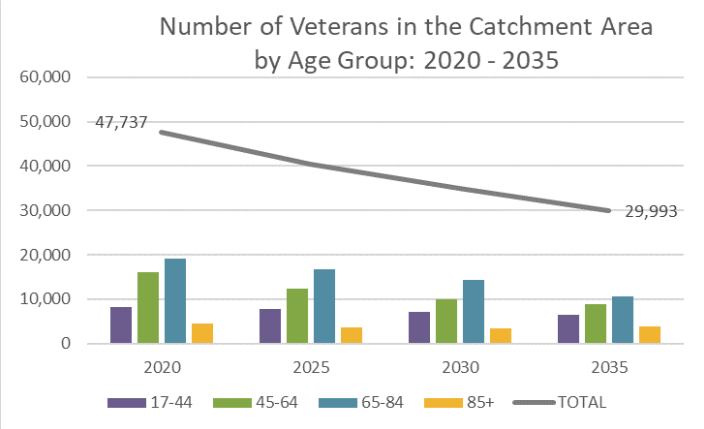
Long-Term Care

For Long-Term Care, the 2016 demographic study looked at the population trends for Veterans in Massachusetts and found that the population is declining and will continue to decline. This rapid planning effort reviewed updated data on Veteran population projections and reconfirmed the findings of the original study. Based on demographic trends alone, the Soldiers' Home in Holyoke should decrease their total bed count over time. The study also looked at data such as waitlist reduction, caring for Veterans housed in other facilities, and programs that keep aging Veterans in their homes longer.

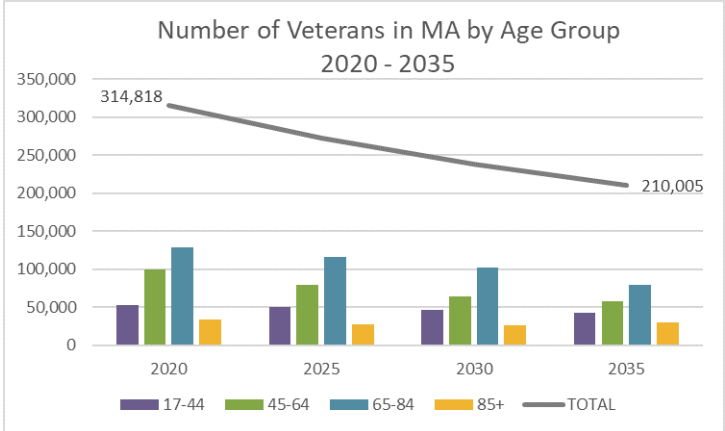
Long-Term Care								
Age	FY19 Census			Vet Pop Forecast		Projeted 2035 Census (population change only)		
	Male	Female	Total	Male	Female	Male	Female	Total
85+	133	9	142	-13%	30%	116	12	128
65-84	90	1	91	-48%	50%	47	2	49
45-64	2	-	2	-47%	-22%	1	-	1
17-44	-	-	-	-22%	-12%	-	-	-
Total	**225**	**10**	**235**	**-40%**	**4%**	**164**	**14**	**178**

When 2019 long-term care bed occupancy rates by age and gender are applied to the 2035 projected population in the HLY catchment area, the projected bed need is 178 beds, as displayed in the above chart.

Note: The census represents 2019 data, which was largely before the Covid-19 pandemic. Long-term care census levels dropped significantly during the pandemic, but this analysis uses 2019 data and assumes that occupancy levels will return to pre-pandemic levels by 2035.

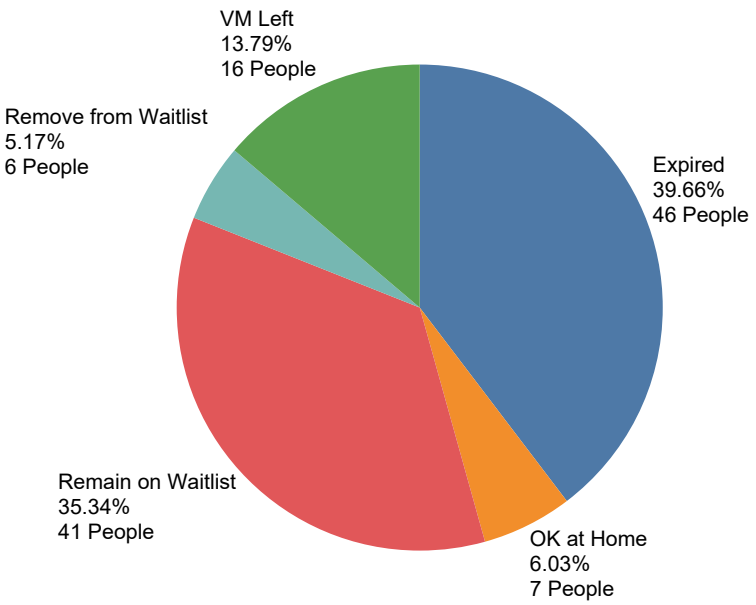


47,737 Veterans currently live in HLY's catchment area. By 2035, this number is projected to decline to 29,993 (37%), which is a slightly steeper decline than the Veteran population of the Commonwealth (33%). Specifically, the population age 85+ is forecasted to decline by 12% and the population age 65-84 (the next most common group) is forecasted to decline by 44%.



The current Veteran population in Massachusetts is 314,818. This number is projected to decline to 210,005 (33%) by 2035 according to the VA National Center for Veterans Analysis and Statistics . Notably, the population age 85+ (the average age of a resident) will decline by 13%.

Based on demographic trends, the 235 pre-COVID resident census is expected to decrease to 178 by 2035 if the census of the facility mirrors Veteran population trends in the Commonwealth. Based on the 2035 demographic data, currently eligible Veterans may not find a spot in 2035 if the bed count falls below 178. Adding beds based on the adjusted waitlist or to care for VA eligible Veterans suggests the 178 minimum bed count could be increased to a maximum of 204. Any potential future bed demand beyond that would be offset by the presence of an Adult Day Health program.

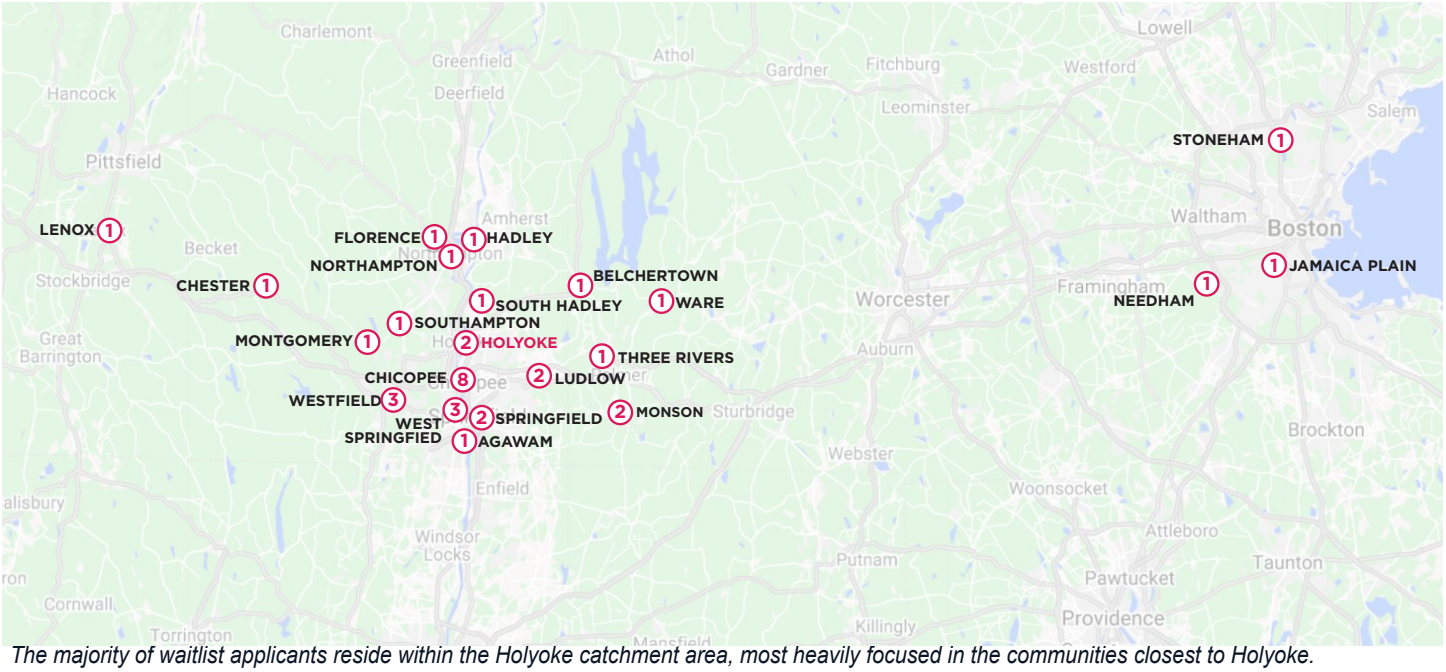


The pre-COVID waitlist of 116 has decreased to 41 as of 10/13/2020

Based on follow-up conversations with Veterans on the waitlist, and after careful analysis, the Soldiers' Home in Holyoke confirmed that the pre-COVID waitlist of 116 prospective residents was actually 41 residents.

When new waitlist policies and procedures are put into place and Adult Day Health is implemented at the Home, the waitlist will not return to its pre-COVID levels.

Residency Map of Current Waitlist Applicants



The majority of waitlist applicants reside within the Holyoke catchment area, most heavily focused in the communities closest to Holyoke.

Adult Day Health

In 2013 and 2015, studies were conducted for the Soldiers' Home in Holyoke that concluded an Adult Day Health program with around 120 enrolled would see up to 40 Veterans on site per day. Guidelines referenced in the 2015 study suggest a program allowance of 200 sf per Veteran, or 8,000 sf for a 40-person program. Ultimately the study resulted in a proposed 13,000 sf space, plus an outdoor area solely for the Adult Day Health program. The 2016 UMass study also recommended Adult Day Health as part of the continuum of care at senior care facilities for Veterans.

Stakeholder Engagement Workshops indicated that patients, families and the Soldiers' Home in Holyoke leadership are interested in providing Adult Day Health. The Northampton VA Medical Center, located approximately 25 miles to the north of the Soldiers' Home in Holyoke, has also indicated an interest in adult day services at the new facility. This VAMC currently uses community providers to provide adult day services, but they would be interested in contracting with the Soldiers' Home in Holyoke if they were to provide this service.

The Demographic study completed as part of this planning effort found numerous Adult Day Health programs in the area, but none specifically for Veterans. The study noted that there is a national trend away from institutional long-term care and toward more home and community-based supports. Driven by cost, patient preference and quality-of-care objectives, families are attempting to maintain elderly members in their own homes for as long as possible, as evidenced by the increasing average age of long-term care residents. We estimate based on this trend that an adult day health program could enable 40 or more Veterans would be able to stay in their homes longer, and out of Long-Term Care, at any given time.

Domiciliary and Supportive Housing

First, many alternates for Veterans housing have been developed since the VA created the Domiciliary program. HUD-VASH (Veterans Administration Supportive Housing) provides homeless Veterans with a means to obtain housing in the community where they live, and non-profits like Soldier On provide structured support services for Veterans needing housing and other types of assistance.

Second, the team found that the VA Domiciliary programs have evolved into the VA Mental Health Residential Rehabilitation Treatment Programs (MH RRTPs) which provide more structured and focused programs and services geared toward Veterans with specific types of needs, such as PTSD or substance abuse. Further, MH RRTPs are designed to provide state-of-the-art, high-quality residential rehabilitation and treatment services for Veterans with multiple and severe medical conditions, mental illness, addiction, or psychosocial deficits.

Outpatient Programs

The Soldiers' Home in Holyoke provided outpatient clinic utilization data that indicates the clinics are small and utilization is low, with some clinics operating less than one day a week. Data reviewed from facility records indicates the following number of patients were served in Fiscal Year 2019 (FY 2019), the last full fiscal year prior to the COVID-19 pandemic.

Annual Outpatient Clinic Volume - FY2019	
Outpatient Clinic	Patients Served
Dental	440
Optometry	372
Podiatry	1,884
Ophthalmology	216
Hematology	48
Oncology	156

Except for Podiatry, the utilization is low across the board. To be considered properly utilized, **many of these specialties should see a minimum of 1,400 to 2,500 annual visits per exam room**, and operate multiple exam rooms, though it varies per facility. Current data expresses significant underutilization of outpatient services at the Soldiers' Home.

In addition, the planning team discussed potential outpatient services with the VA and found that the VA recently opened a new clinic in Worcester and is planning to open an expanded clinic in Springfield, which will be operational before the anticipated completion of any renewal at the Soldiers' Home in Holyoke. The VA also indicated they believe their new and proposed clinics covered the long-term regional needs of Veterans. Except for a dental clinic, the VA recommended strongly against Holyoke providing outpatient services for Veterans on site due to the overlaps with the VA existing services in the catchment area. Considering this information, and the potential range of services that outpatient clinics can provide, no more demographic data was collected for outpatient clinics.

THE 2012 STUDY

In 2012, Payette Associates prepared a report and initial design for an addition and renovation at the Soldiers' Home in Holyoke, which was submitted to the VA Soldiers' Home Construction Grant Program for funding consideration. Since that report was issued, several factors central to that report and design have changed. After careful review we found we could not move forward with the report's recommendations. New information that has been incorporated in this rapid planning phase changed the following:

1. ***Reduced Bed Counts Due to Needs Assessment***: The 2012 study proposed a 270-bed facility, but that number was not based on a Needs Assessment. The VA required a needs assessment be completed, and when that study was done, it was clear that the declining Veterans' population would ultimately not support a facility of that size.
2. ***A Shift to Single Occupancy Rooms***: While the proposed addition was all single occupancy rooms, the renovated portion of the facility was all double occupancy rooms. The result was a facility that had 142 single rooms and 64 double rooms. The VA initially accepted this, but later determined it would not be acceptable. While that determination has changed again and double occupancy rooms are currently acceptable to the VA, two issues prevent us from pursing that design. First, we believe single occupancy rooms are an important step in minimizing infection spread in the facility, and second, the significant difference between new and renovated facilities creates an appearance that one side gets a better quality of care then the other. Such discrepancies can often lead to feelings of unequal care, which even if untrue can becomes a long-term management problem for the Home.
3. ***Operationalizing a Staffing Increase***: In 2012, the facility operated at a significantly lower staff per resident ratio than is planned. We do not believe the site can accommodate 270 beds at the proposed staffing ratios, given the limitations of existing site to accommodate required parking.
4. ***Addressing Domiciliary, Outpatient and Adult Day Health Services***: The 2012 study made no recommendations or revisions to the Domiciliary or Outpatient Services, which are in need of renewal if they remain. It also did not address Adult Day Health, which we believe will allow a number of area Veterans to stay in their homes longer. We believe these issues need to be addressed at this time.

Rendering of Proposed Soldiers' Home Addition, Payette 2012 Conceptual Study

Rendering of Proposed Soldiers' Home Addition, Payette 2012 Conceptual Study

Rendering of Proposed Soldiers' Home Addition, Payette 2012 Conceptual Study

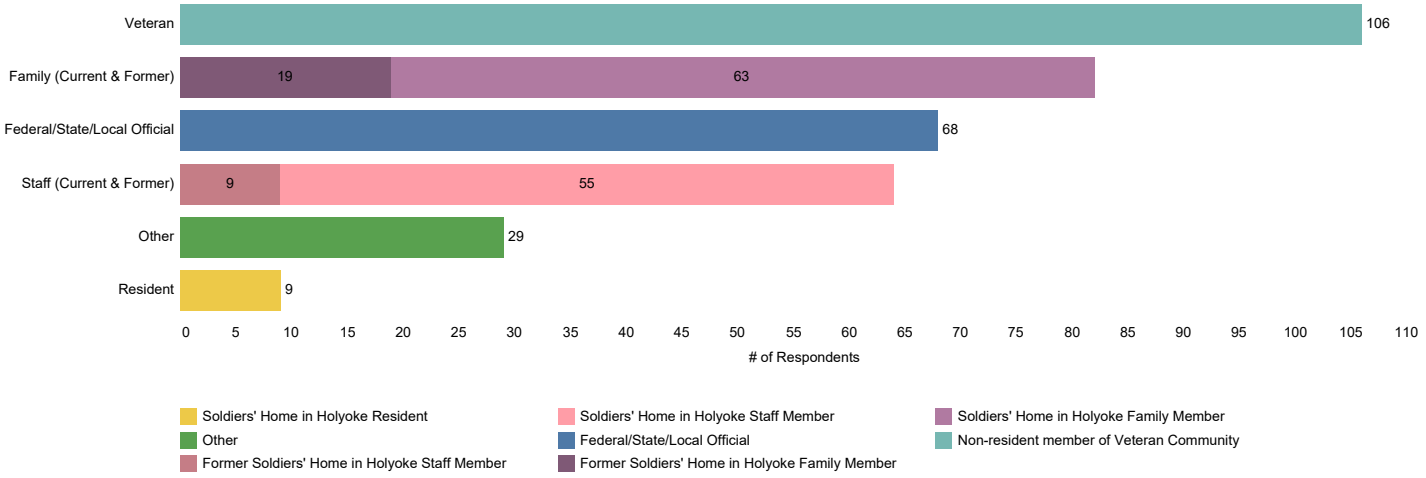
STAKEDHOLDER ENGAGEMENT

Survey

The team received **349 unique responses** during the six-week initial response period. While survey data contained within this report includes responses as of October 6, 2020, the survey will remain open for additional responses in order to continue the information gathering process for the design effort that is to follow.

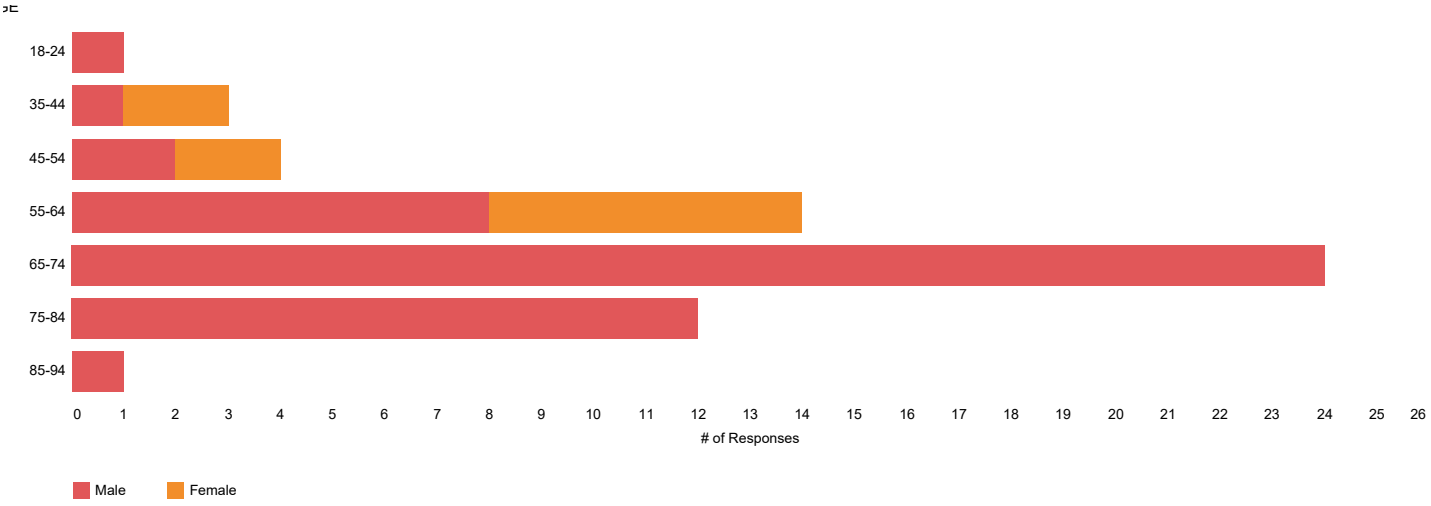
The data presented below represents a few key excerpts from the responses received. A more comprehensive summary of survey responses has been provided within the Appendix of this report.

About the Survey Respondents:



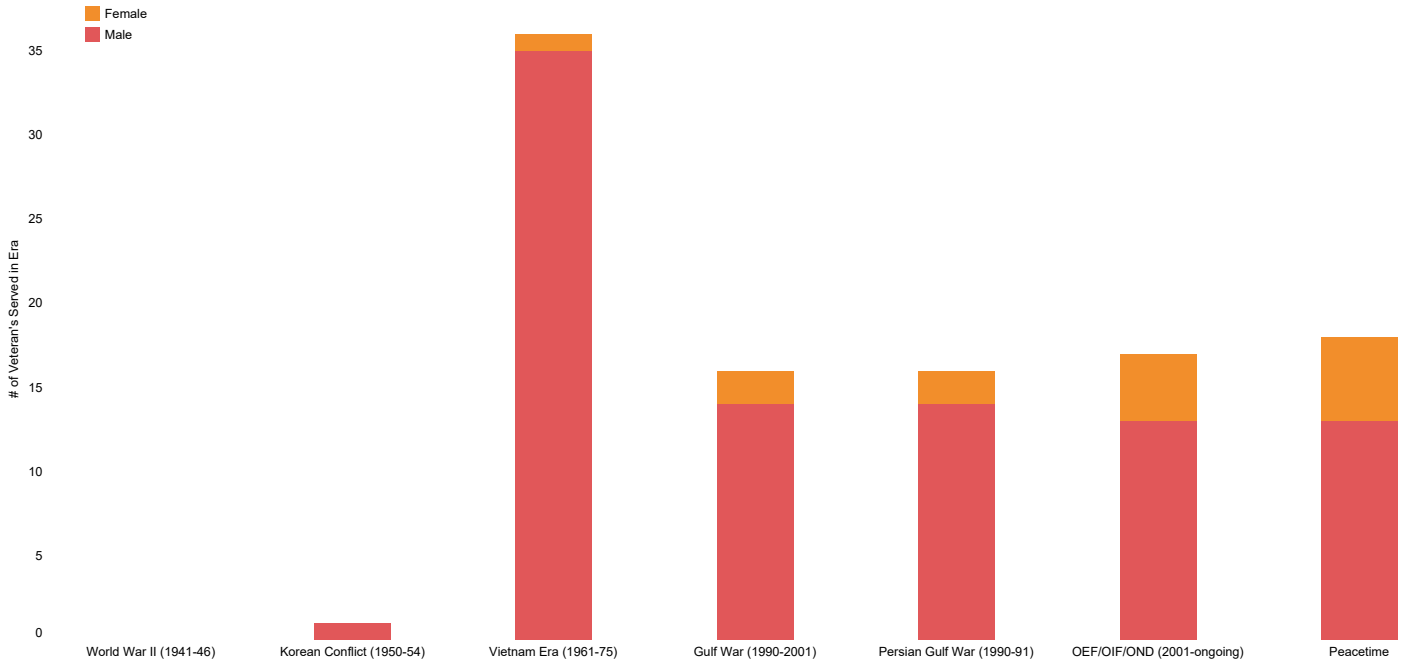
The survey captured a broad range of representation across the key stakeholder groups. The Veteran community did provide the largest percentage of feedback followed by current and former family of residents. Gaining the perspectives of staff in the survey provided important insights on current future resident care that assisted the team in understanding the specific care needs of the Soldiers' Home in Holyoke resident community.

Non-Resident Veteran Respondents by Age and Gender Identification



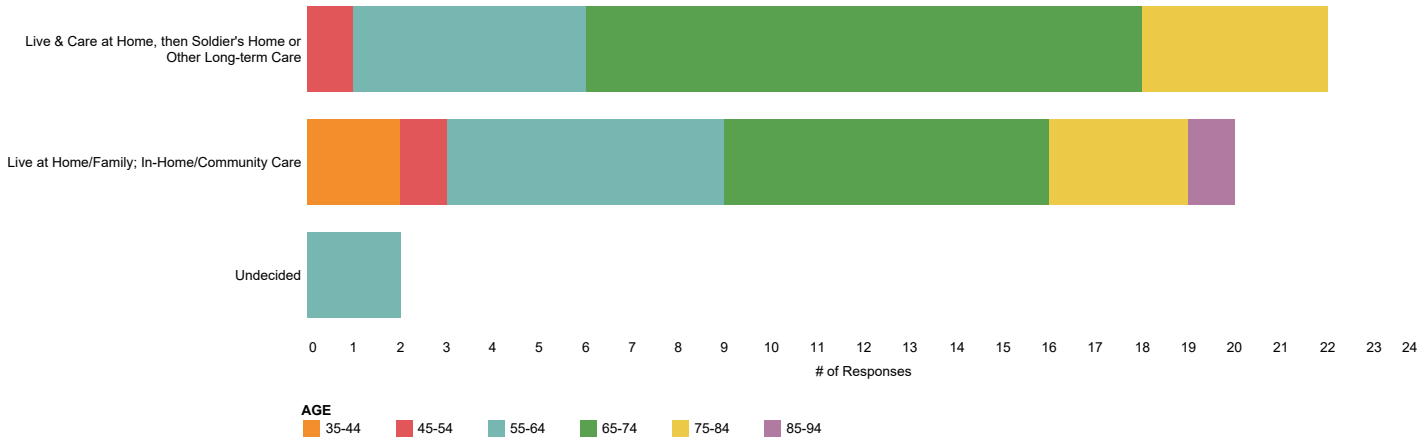
The majority of the survey respondents fell within the 65-74 age category which provides an important insight into the future 10 – 15-year resident population at the Soldiers' Home in Holyoke. The increase in women amongst 55 – 64 age categories clearly indicates that a future Home will need to accommodate an increasingly gender diverse resident population in the years ahead.

Eras Served by Veterans



Veterans that served during the Vietnam era represented the largest group of Veteran respondents. Many respondents' service spanned multiple conflict eras. Women Veterans were shown to have served in the more recent conflict eras. The future residents of the Soldiers' Home facility will require care that will evolve based on the specific injuries and health conditions that are present in Vietnam conflict era Veterans to present.

As You Look to Your Future Care Needs, What Best Describes How You Are Looking To Receive Long-Term Care (should we changing to Nursing Home)?



The majority of Veteran respondents indicated that they would like to stay at home as long as possible prior to entering a nursing home or Veterans residential facility. A little less than half of the Veteran respondents indicated that they would like to exclusively receive care either in-home or within the community while remaining at their private residence.

Special Note: The full survey response results can be found in the Appendix at the end of this document

Workshops

The stakeholder workshop process yielded critical information in determining the specific priorities of residents, family, staff, Veteran organizations, local and state officials and the community, specific to their experience and vision for the Soldiers' Home's future. The following represents the key takeaways from the Stakeholder and Legislator Workshops:

Soldiers' Home in Holyoke Residents

- Several of the Veterans who participated mentioned comradery with fellow Veterans as both the reason they selected the Home and why they have enjoyed their time and care while being a resident.
- A resident mentioned their desire to have greater access to staff when needed.
- Residents expressed the importance of their common spaces, specifically for recreation, dining, and hobbies to maintain the quality of their everyday life. The current canteen was noted as space that should be expanded and improved to better accommodate special events that are often attended by the surrounding community. Residents also expressed how they enjoyed the small vegetable garden and the rooftop greenhouse (when open).
- Residents were split on the question of private vs. non-private (having a roommate) rooms. While the privacy of a single room was expressed as a benefit, one resident did appreciate the companionship of having a roommate.
- Better access to temperature control and additional storage were both noted as potential improvements to the resident rooms.
- A staff member participating in the workshop with the residents noted that the locked units could benefit from a sunroom and quiet/sensory room.

Soldiers' Home in Holyoke Staff

- Staff reinforced the need for a larger canteen area to support special entertainment events.
- Staff noted that residents enjoy being outside. The "solariums" on each resident floor were reported by staff as underutilized by residents and their families.
- The office staff indicated that they currently do not have a place to secure their belongings if their offices are not equipped with locked cabinets.

Family of Veteran Residents

- Strongly advocated for all private rooms.
- Families would like to see improvements to the accessibility of outdoor space.
- Inclusion of Adult Day Health services for community seniors was requested by family members.
- Family members expressed a preference for an on-site outpatient clinical care.
- Improved infection control measures, including technological solutions to air filtering and sanitizing within the future facility.

"The garden that we had last year was interesting. You could go pick out whatever you want, I had some tomatoes and some peppers. The gardener made it accessible for us, that was an interesting community thing to do. Also the green house on the third floor, used it a lot. Attached to the recreation room, a lot of Veterans would eat in rec room and move their trays into the green house to eat and sit closer around nature. And the chapel, we have a chapel. Unable to use it right now. Would like to see that come back"

- Current Resident, Soldiers' Home in Holyoke

"Been here 3 years. Was living at home alone, getting home care. Couldn't live home alone anymore. Was looking for a place, qualified for [Soldiers' Home in Holyoke]. Grateful for the rehab, helping to walk with a walker. Feels like I'm at home here, meeting all kinds of people. It's a home for me and for my family, made some good friends here.

That is what the Soldiers' Home is all about. Keeping vets together, sharing something in common."

- Current Resident, Soldiers' Home in Holyoke

Community and Veterans Organizations Workshops

- A new building for the Soldiers' Home was widely expressed as a preference for a future Soldiers' Home facility.
- Specific clinical services such as Geriatric Behavioral Health, a secure Dementia Special Care Unit, and End of Life Comfort/Palliative Care were requested.
- All private rooms were the overwhelming preference in room type. Rooms with ample storage, ceiling lifts, and windows with a view and sunlight were specifically requested
- Security at the entrances to the home is a necessity.
- Safe, secure, and accessible outdoor space was noted by the community and Veterans as a high priority.
- The Dementia Special Care unit should have direct access to secure outdoor space. Recreation and activity areas for the residential Home and Adult Day programs were also requested.
- Adult Day Health services was requested as a program that is needed in a future Home facility.
- The community and Veterans requested a Family Contact Area that would allow family members to see and hear their loved ones without having to physically enter the residential floor areas should conditions necessitate.
- A Memorial Garden was acknowledged as a necessary feature to any future facility design at the Home.
- It was requested that space for on-site clinical care for residents should be optimized.
- A modern and expanded canteen recreation area for special resident and community events was noted as needed by the community and Veterans. A space for virtual gaming was specifically requested.
- Low sensory and quiet areas were mentioned by the community and Veterans as spaces that could be beneficial to residents. Additionally, sensory stimulation areas were stated as needed as well.
- Multi-denominational chapel should be maintained in a future facility.

Local and State Legislative Discussions

- Several legislative participants noted that consideration should be given to the changing nature of Veterans' needs, including current, returning Veterans who will have more physical and behavioral challenges due to multiple combat tours.
- Like the evolving nature of the Veterans' clinical needs, an increase in female Veterans was noted for consideration in the future facility's design.
- Access to care for Substance Use Disorders should be a priority for Veterans at the future Soldiers' Home facility.
- Adult Day Health services were requested by several of the legislative participants for inclusion in a future Home facility.
- A Home facility that creates spaces that promote greater connectivity with the surrounding community was described by the legislative participants as an important component for its success.

SITE CAPACITY

By analyzing site capacity and cost viability, we seek to establish the appropriate size and cost of a project by keeping the project size below certain trigger points that will cause project costs to quickly escalate. There are two aspects to the process:

- Establish which portions of the site should not be developed because doing so will increase the costs
- Evaluate how densely the site should be developed before density escalates the costs.

Site Capacity - Buildable Area Limitations

At Holyoke, we found the steeply sloped hillsides that form the current entrance to the Soldiers' Home to be areas that are economically inappropriate for the development of any building that requires access from multiple sides, like a Long-Term Care facility. This is not to say that smaller interventions are not appropriate, but any large building footprint will require grading of that area to provide the required accessible parking, allow for the one or more resident or patient drop off areas, provide a suitable loading dock for service, and provide usable outdoor recreation areas, all of which need to be connected by the required accessible pathways around the building. This work will add cost. The required cutting and filling of the site, the added retaining walls, and deeper foundations would prove costly and if required would suggest another site in the area is more appropriate.

Only the areas of the site that are currently developed with building and parking lots form the reasonable buildable area of the site.

Next, we looked at how densely the site can be developed. As the project size increases, we see two trigger points where project costs will have sharp increases.

The most economical project on this site would be a building that is one to three stories in height with all required parking provided via surface lots. When the building program grows too large to fit this model, the first cost trigger is reached. When that happens, we need to reduce the building footprint and increase its height to provide for more surface parking. The higher the number of floors, the sharper the cost increase.

The second trigger occurs when the program grows so large that the only way to provide the required parking is through parking garages , which are not reimbursable through the VA SHCGP. At this point, significant investment is being made in non-program construction. This may be fine if the location was so prime or essential that it is justified, but like hillside development, it involves committing funds to do work that does not directly contribute to the mission of the project.

Site Capacity - Parking Capacity Limitations

CONSTRUCTION COST

The existing building has deferred maintenance costs that must be addressed if it is to be reused. Deferred maintenance is considered by some to be a capital cost and by others to be an operational cost. For this report, deferred maintenance is carried as a capital cost. The value of the cost of renovation has been carried as the same as the cost of replacement. This should provide an adequate cushion to allow any renovation to address deferred maintenance. For any area that is not renovated, no deferred maintenance costs are included.

PROJECT	180 Bed Replacement	204 Bed Replacement	204 Bed Renovation (Minimal) + Addition		204 Bed Renovation (Complete) + Addition
Anticipated A2/2023 Total Project Cost	**$255,600,000 +/-**	**$289,680,000 +/-**	**$236,000,000 +/-**	***to***	**$302,650,000 +/-**
TOTAL BEDS	180	204	204		204
Cost / Bed	**$1,420,000**	**$1,420,000**	**$1,157,000**		**$1,484,000**
PROJECT SIZE (GSF)					
New	283,000 GSF	308,500 GSF	188,400 GSF		188,400 GSF
Renovation	0	0	81,410 GSF		152,410 GSF
SUBTOTAL (New + Renovation)	**283,000 GSF**	**308,500 GSF**	**251,000 GSF**		**322,000 GSF**
Project Cost / SF	$940 / SF	$940 / SF	$940 / SF		$940 / SF
Unrenovated Area	0	0	**71,000 GSF**		0
TOTAL BUILDING SIZE	**283,000 GSF**	**308,500 GSF**	**322,000 GSF**		**322,000 GSF**
SF / Bed	1,571 SF	1,571 SF	1,571 SF		1,571 SF

** Preliminary order-of-magnitude estimates, subject to change; based on Chelsea Soldiers' Home bid pricing extrapolated to FY2023 projection*
GSF = Gross Square Feet

INFECTION CONTROL MEASURES

Infection control for Holyoke can be broken into three categories; 1) modifications we can implement immediately, 2) modifications we can implement with building renewal, and 3) modifications that are currently being developed in reaction to the pandemic, which we may implement once we have had time for them to develop and evolve.

The Soldiers' Home has already begun the process of implementing immediate changes and has made considerable investments to improve the facility. The modifications they have made include:

1. Reduced number of occupants per room and in the building overall
2. Replacement of finishes that can harbor infections
3. Revision and repairs to old plumbing fixtures,
4. Installation of portable air filtration systems
5. Improvements to PPE stations
6. Improved signage
7. Improved clean and dirty workflow

When the facility undergoes a significant renovation or replacement, additional measures that will be taken to minimize infection spread and to aid staff in containing it should it happen include:

1. Provisions for single rooms with private baths
2. Smaller resident units to help manage containment
3. More space per resident to allow for social distancing,
4. Surfaces that are more easily cleaned
5. Better ventilation and an improved HVAC system
6. Increased and better integration of hand wash and Personal Protective Equipment (PPE)
7. Ability to isolate units

Additionally, there are many other potential improvements that are being developed which may be incorporated into the home when it is rebuilt. Because these ideas are only now being developed, and consensus among architects, engineers, health professionals and facility operators has not fully developed, these potential options, and likely others not listed here, will have to be monitored during the course of the facility design to see if they should be incorporated. The list of potential modifications includes:

1. Install air handlers and ventilation systems that integrate a combination of HEPA filtration, UV lighting and Needlepoint Bipolar Ionization to help mitigate the spread of bacteria and viruses thorough their air systems, or other system improvements
2. Design isolation homes into the facility instead of isolation rooms, creating places where the facility can safely house groups of people with a similar disease together, maintaining the social environment that is necessary for elder and dementia care and yet limiting infection spread through a facility.
3. Create facilities to isolate new resident upon entering a home, creating a space where newcomers can be evaluated before mixing with other residents and potentially spreading any infection they bring in.
4. Rethink how the rapid distribution of PPE can be done to minimize spread early.
5. Reimagine how visitation in long-term care can be maintained during a period of contagion spread, as isolation during a pandemic has proven a significant issue for quality of life.
6. Explore operational changes, such a limiting staff interaction across resident homes, when the chance of infection spread is high

Over the next few years, as a renewed facility at Holyoke is designed, the most important issue will be that the architect and Commonweatlh keep their mind and eyes opens to what the community begins to develop in response to this pandemic, and considers each on its own merits.

CONDITION OF EXISTING FACILITY

Initially laid out with open wards of 16 beds, as was common for mid-20th century Veteran and elder care facilities of the time, subsequent renovations converted the open wards into resident rooms that range from single bed to up to five residents in one room. The existing floor plates of the original 1952 facility are quite narrow and except for the dementia units all wings have resident rooms arranged along double-loaded corridors, the majority of which are less than 8'-0" wide. Both the original 1952 and the 1970 portions of the existing facility have floor to floor heights varying between 10'-6" and 11'-0". This will make any infrastructure upgrades as part of renovation a challenge to implement while accommodating a comfortable ceiling height in resident spaces. While exterior windows were replaced with thermally broken units in 2008, the existing exterior walls warrant significant investigation to verify integrity of the envelope. The multi-wythe masonry exterior of the 1952 buildings will likely require extensive repointing given their age.

A building study conducted in 2015 found several areas for concern in the existing condition of the facility, determining that it is nearing end of its useful life in many respects. This includes the existing traction passenger elevators, the existing egress stairs, and the existing toilet facilities. The report also noted accessibility concerns throughout the campus and the site, including lack of maneuvering and door clearances, lack of accessible routes, non-compliant cross slopes across walking surfaces, and protruding elements beyond what is permitted by code.

Substantial investment is currently underway, primarily focused on infection control measures such as installation of air purification units and replacement of existing furnishings and finishes. However, that work does not make updates that would correct the concerns noted above. It is expected that extensive infrastructure upgrades will be required to bring the existing buildings and campus up to current codes and standards.

DESIGN STANDARDS

MA 105 CMR 150 Long-Term Care vs. VA Small House Model

While the standards established in MA105 CMR 150 Long-Term Care regulations and the VA Small House Model have some similarities, the VA Small House generally has a larger spatial demand per resident due to the number and minimum dimensions of the spaces required. The VA Small House Model requires single resident rooms with private bathrooms, the 105 CMR 150 Long-Term Care standards does allow two-person resident rooms. Additionally, the size of the unit or home varies greatly, with 105 CMR 150 Level II facilities allowing up 41 residents per unit and Level III facilities allowing up to 60 residents per unit. In the case of both standards, the standard single resident room size is equivalent.

It is not compulsory for state operated Veterans' homes, like the Soldiers' Home in Holyoke, to follow the VA Small House Model. The VA Grant Program, from which the Commonwealth will seek partial funding for a future Soldiers' House Facility, does not require that state Veterans' homes comply with the VA design standard to receive federal funding. While a new, replacement facility may be able to achieve a design that is close if not equal to a VA Small House Model, is it highly unlikely that a future design approach that maintains and renovates the existing building can achieve the VA Small House Model due to the constraints of the existing floor plate size. It is more likely that a renovation approach will lean more towards the more conventional nursing home model that is defined within the 105 CMR 150 Long-Term Care requirements.

Skilled Nursing Facilities

The Centers for Medicare & Medicaid Services (CMS) regulations indicate a nursing facility must meet specific requirements to be considered a Skilled Nursing Facility (SNF). The designation is dependent upon a facility having skilled professionals that are qualified to provide specific, basic clinical care services for the resident population, including but not limited to, physical therapy, occupational therapy, speech pathology, medical supplies and changing sterile dressings. A nursing facility can only be eligible for Medicare reimbursement if it meets the CMS requirements for a SNF.

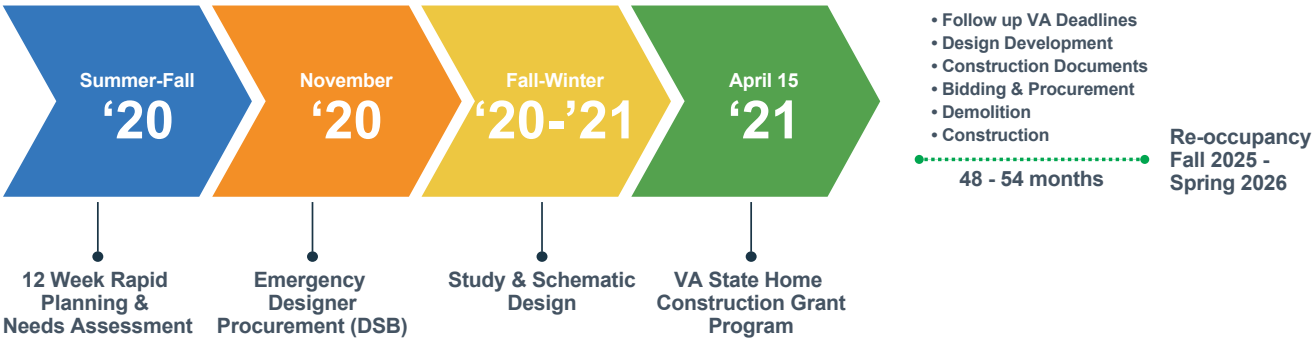
Similar or Alternative Models

There are alternative nursing care models or guidelines that may serve as additional resources for developing modern, resident-centered nursing facilitiessuch as the non-profit **The Greenhouse Project** which partners with senior living providers to elder communities. Additionally, the **Whole Building Design Guide** offers guidance for creating homelike and therapeutic environments for seniors.

STATE HOME CONSTRUCTION GRANT PROGRAM (SHCGP)

The grant program is a likely source for funds for both the construction and operation of the home. As such, the application, design, and construction of the home must comply with the federal grant application requirements. The information required by the grant program must be submitted in satisfactory form by a series of specified dates in an annual cycle commencing on April 15th of each year. **If the project successfully completes the required series of submissions, it may be approved by the grant program, but that approval does not indicate that funds are available.**

Depending on the project priority and the total project budget, it is common for certain projects to be placed on a waiting list until funds become available. It should be noted that replacement facilities are placed last on the list so that the grant program can prioritize the funds needed to keep existing homes safely operating. While congressional appropriation for the program can change each year, it is typically granted around $100m a year to distribute to homes in all states, districts, and territories.



Once the Designer Procurement process is complete, the Grant Application must be submitted by April 15, 2021 for the VA to consider the project for funding. April 15 is an annual deadline.

As part of this rapid planning process, we had a conference call with several members of the grant program to ask questions that had come up during the rapid planning phase. The following was determined:

- The grant program continues to fund nursing home, Adult Day Health, and domiciliary projects. They cannot fund other types of projects, such as outpatient clinics or other services that are typically provided by the VA medical center of jurisdiction.
- The grant program does not require nursing homes comply with the VA's small house guide, but they do encourage it. Nursing Homes must comply with the grant program requirements as set forth in Title 38 Code of Federal Regulation (CFR) Part 59. This is significant because the Small House Guide requires all nursing homes provide single occupancy rooms, while Title 38 allows for multi-occupancy rooms.
- The Grant Program does not fund new construction for Adult Day Health. It only funds renovations and re-purposing of existing buildings for that program.
- While the grant program continues to fund domiciliary projects, they have seen only a handful of applications in the past several years.
- Grant program will not fund structured parking, driving a cost-based need to maintain surface parking on site.

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PROPOSED PROGRAM FOR HOLYOKE

Based on the information outlined in this study, the team recommends the following:

- *Plan for a state-of-the-art facility within the range of 180-204 Long-Term Care Beds primarily comprised of single bedrooms with private bathrooms.*
- *Expand the current program to include an Adult Day Health Center*
- *Transition outpatient services and domiciliary out of service over the next five years*

RENOVATION + ADDITION
(Complete)

Program Area	GSF
Existing/Renovated Building	
Long-Term Care Houses (96 Beds)	120,500
Adult Day Health (40-50 per day)	10,000
Clinical Support	13,500
Administration	8,000
Sub-Total	152,000
New Addition	
Long-Term Care Houses (108 Beds)	133,500
Neighborhood (approx. 1 per 3 houses)	6,500
Community Center	12,000
Canteen	
Activity/Recreation	
Exercise Gym	
Support Services	18,000
Kitchen	
Laundry	
Building Support	
Loading Dock	
Sub-total	170,000
TOTAL GSF	**322,000**

** Renovation + Addition based on full renovation of existing. GSF is reduced if minimal renovation is pursued.*

NEW REPLACEMENT BUILDING

Program Area	GSF
Long-Term Care Houses (204 Beds)	252,500
Neighborhood (approx. 1 per 3 houses)	6,500
Adult Day Health (40-50 per day)	10,000
Community Center	12,000
Canteen	
Activity/Recreation	
Exercise Gym	
Support Services	18,000
Kitchen	
Laundry	
Building Support	
Loading Dock	
Clinical Support	13,500
Administration	8,000
TOTAL GSF	**320,500**

Long-Term Care
We recommend that Soldiers' Home in Holyoke continues to analyze the cost of both a complete replacement as well as a renovation plus an addition to provide between 180 and 204 long-term care beds. Either a new facility or a renovated facility with an addition will provide single-patient rooms, which will increase Veteran satisfaction and adhere to current infection control standards. It will also provide more indoor as well as outdoor activity spaces. Although a renovation with addition is the less costly option, it presents many logistical challenges, including, but not limited to, the need for the building to remain occupied during renovation. Either course of action will support the projected 2035 Veteran decreased census and allow space for possible increased demand for care due to higher service-related disability ratings and to allow for provision of care to residents currently on the waitlist or who are VA-eligible and residing in community nursing homes.

Domiciliary and Supportive Housing
In Western Massachusetts, programs such as the Veterans Affairs Supportive Housing (VASH) Program as well as non-profits such as Soldier On and others currently fulfill the community need for short and long-term domiciliary housing and structured assistance, and they have capacity to assist a greater number of Veterans.

The VA is also transitioning from the domiciliary (purely housing with no health care or rehabilitative services) model to the Mental Health Residential Rehabilitation and Treatment Programs (MH-RRTPs) model. Given the evolving role of Domiciliary care for Veterans and the available resources within the VA system we do not recommend that the Soldiers' Home in Holyoke transition to a MH-RRTP model of care but rather that they discontinue the current domiciliary through attrition. Discontinuation of the domiciliary will allow for more space on the campus to support the long-term care mission.

Adult Day Health
Stakeholder Engagement Workshops indicate that patients, families and the Holyoke Soldiers' Home leadership are interested in providing adult day health services. The Northampton VA Medical Center, located approximately 25 miles to the north of HLY, has also indicated an interest in adult day health services at the new facility. This VAMC currently uses community providers to provide adult day health services, but they would be interested in contracting with the Soldiers' Home in Holyoke if they provide this service.

Outpatient Services
There are available outpatient services in market, including the Veterans Health Administration facilities that are anticipated to expand in scope. Existing outpatient services at the Soldiers' Home in Holyoke are dramatically underutilized, and the Commonwealth should continue offering transportation services to existing outpatient providers such as the VA Community Based Outpatient Clinics (CBOCs).

Site Capacity
Based on the evaluations in this report, there are two key findings that impact capacity: First, the hillside renders any large-scale development not financially suitable. The property that is currently developed with buildings and parking are the most economical portions to develop, and if the project does not fit on that portion of the site, it may be best to consider an alternate site. Second, the project should be no larger than what can be accommodated by surface parking. Construction of a parking garage in this area is an unnecessary expense that should be reserved for only the most prime properties.

Phased Implementation of the Work
As the existing campus must remain operational during any renewal process, we need to consider a phased implementation. Phasing can be simple or complex, and the cost implication can have a significant impact on the duration and cost of construction. Phasing will likely have some impact on the actual program provided, and some adjustments in the program sizes proposed in this report may be necessary to accommodate the required phasing. We encourage phasing to be as simple as possible to minimize cost changes during construction. A detailed phasing plan must be developed by the selected designer as the project moves forward.

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Based on the recommendations outlined in this study for the future program at Holyoke, the planning team looked at what modifications to the existing property would be required to achieve the desired program. The team investigated several scenarios that ultimately came down to two options for the facility renewal, a renovation/addition option similar to what was proposed in 2012, and a complete facility replacement option. The exact design of either scenario will occur after the rapid planning stage is complete, but the following is a general description of each.

OPTION 1 - RENOVATION / ADDITION

If a renovation and addition is pursued, the work will likely follow the path outlined in the 2012 study, but with significant revisions. The following components were the salient features of the 2012 study:

- Build a new 120-bed addition in the Community Living Center (CLC) model, all single rooms
- Execute a 150-bed renovation in the existing building based on the LTC model, mostly double rooms.
- Renovate and relocate the administration area since the existing administration area was lost to a resident home conversion.
- Leave untouched the existing food service operations, activity rooms, loading dock, clinics, and many other support areas, including the infrastructure that supports them.
- Leave untouched the existing elevators, exterior walls and structure.

If the renovation / addition scheme were to be pursued today, the 2012 study would have to be updated to address the following issues:

- Revise the renovation portion of the work to;
    - Accommodate the need and desire for single beds with private baths. This will significantly reduce the number of beds attainable in the renovation and require a larger addition
    - Convert the vacated clinic space to Adult Day Health or to resident rooms.
    - Convert the Domiciliary to Adult Day Health, another suitable use, or be phased out
    - Replace and enlarge the existing elevators.
    - Address any longstanding maintenance items in the existing building that will not be corrected by the renovation.
    - Comply with the current energy code and reduce energy usage.
    - Acknowledge that increased staffing per resident will result in a parking shortage, and this will limit the final program size and bed count to that which the existing parking can support.
- Incorporate more accessible outdoor recreational and amenity spaces into the campus. The site planning should also include a Memorial Garden.

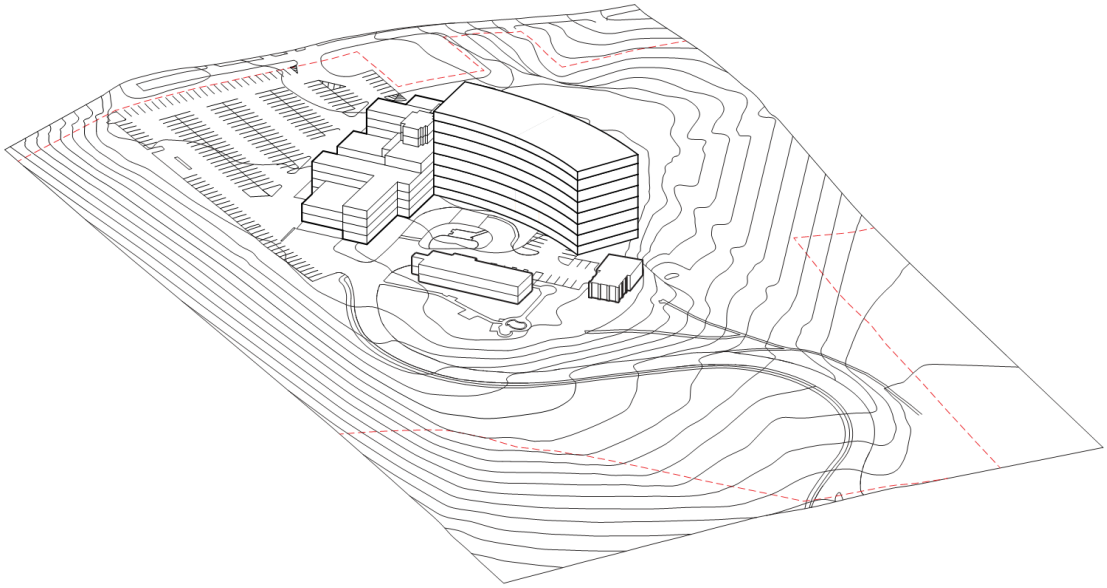
The last point has significant impact on the potential building program. Because the existing building footprint occupies a significant portion of the buildable site, and there is not much room for significant parking expansion, the renovation scheme will likely limit the size of the Long-Term Care facility to the lower end of the recommended bed count, around 180 beds.

Estimating a cost for such an extensive renovation and addition is incredibly difficult at this stage. That said, we anticipate significant if not complete replacement of mechanical, electrical, plumbing, fire protection and low voltage systems will be required to bring the facility up to current standards. The extent of renovations will require access compliance throughout the facility and will likely trigger energy code and exterior envelope upgrades. In consideration of these modifications, we believe the existing concrete structure and low floor-to-floor height of the existing building will hamper the necessary renovations. Given these facts, we believe that any saving found by reusing the existing structure will be lost to the complexity of working with the existing building and the phasing of the renovations. Ultimately the cost per square foot may be comparable to that of new construction.

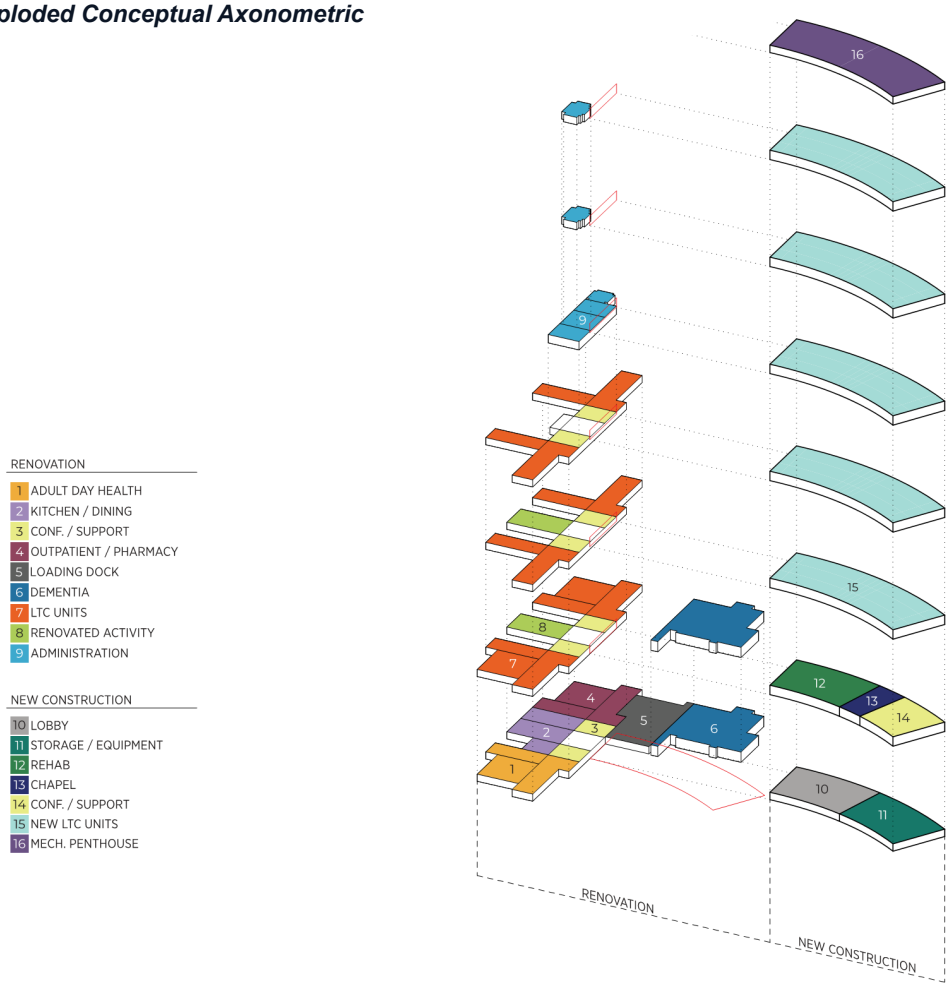
Conceptual Planning and Program Stacking - Renovation with Addition

Conceptual Site Planning

Conceptual Axonometric



Exploded Conceptual Axonometric



Conceptual Typical Unit Layout

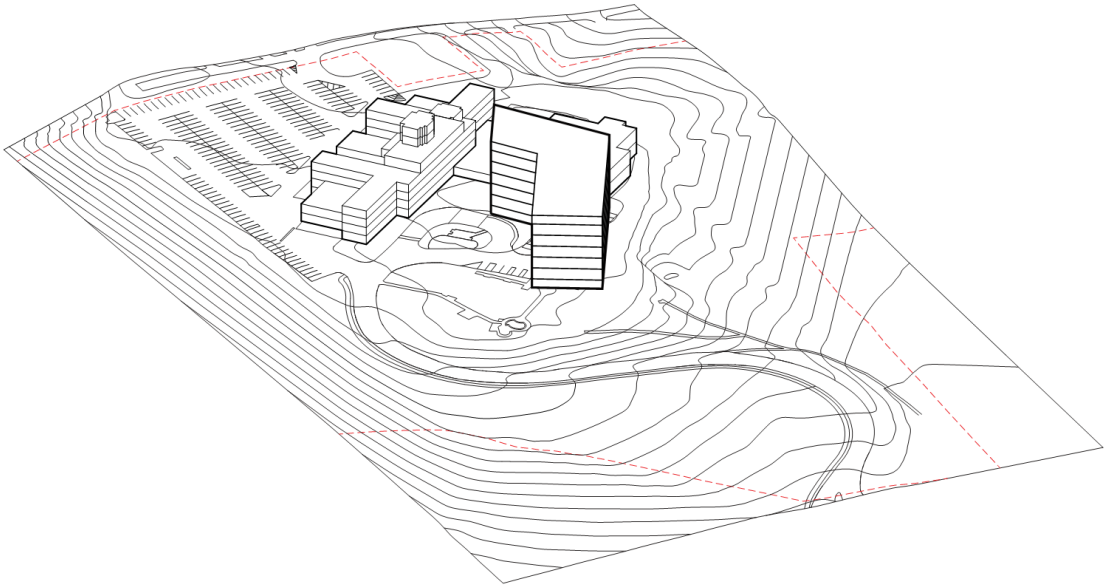
OPTION 2 - FACILITY REPLACEMENT

If the replacement option is pursued, the work will likely be a 180-204-bed facility. Upon completion of all or part of the new facility, the existing building and central plant will be demolished. The replacement facility would likely be all single rooms or single rooms with a few double rooms, and could be built to either LTC or CLC requirements, or to a hybrid solution that offers all the features of the CLC without meeting every requirement in that program. The replacement would include improved site circulation, outdoor recreation and garden space as well as a Memorial Garden.

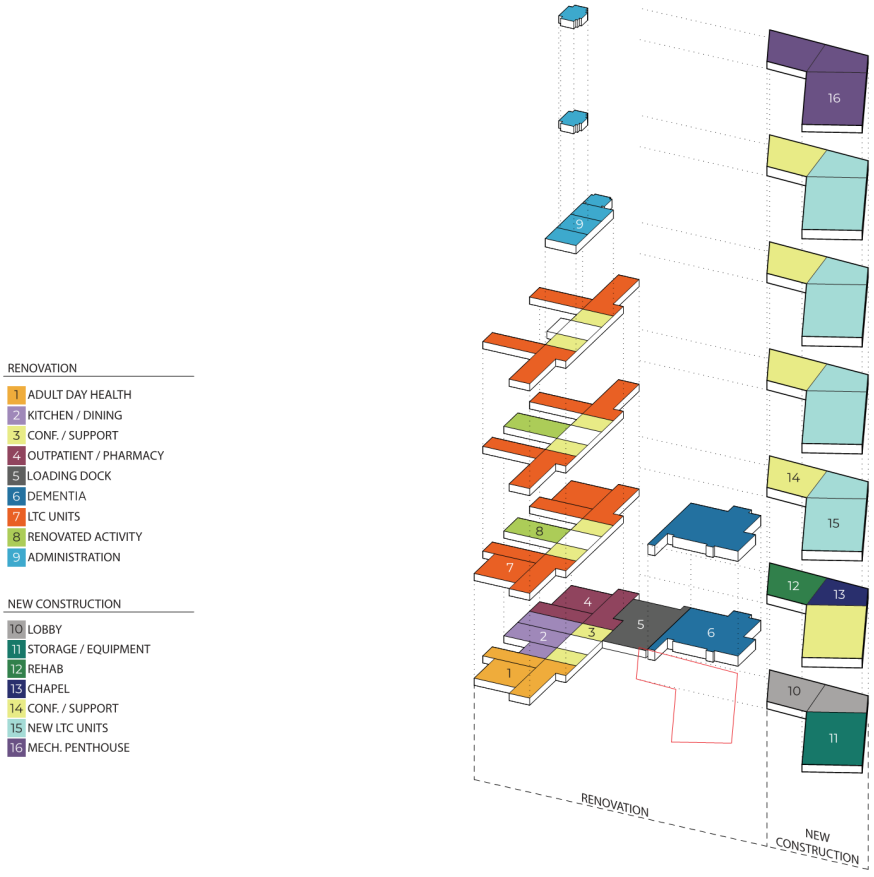
Conceptual Planning and Program Stacking - Facility Replacement

Phase 1 - Conceptual Site Planning

Phase 1 - Conceptual Axonometric



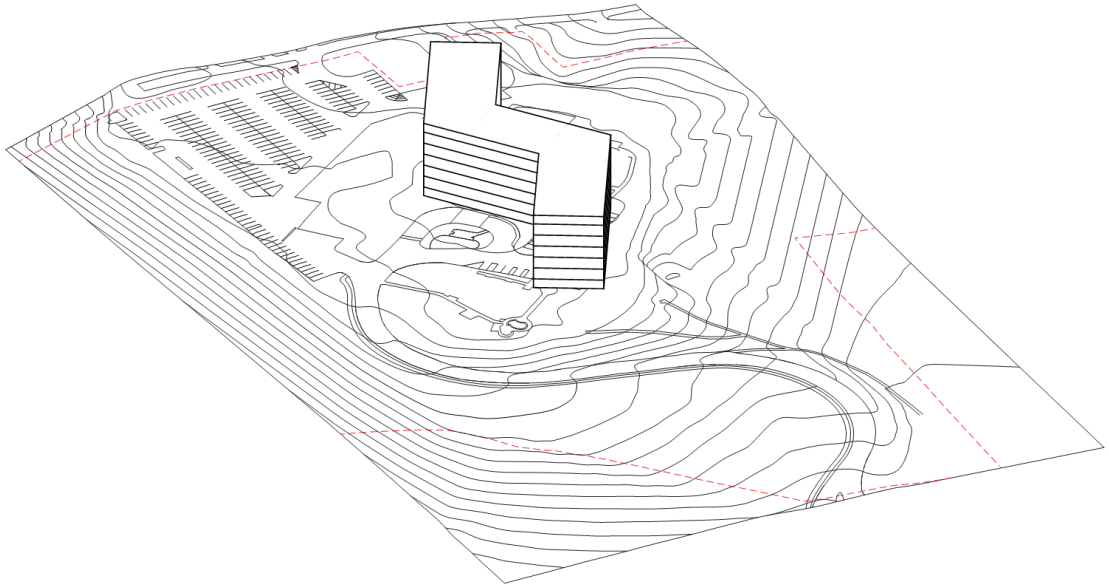
Phase 1 - Exploded Conceptual Axonometric



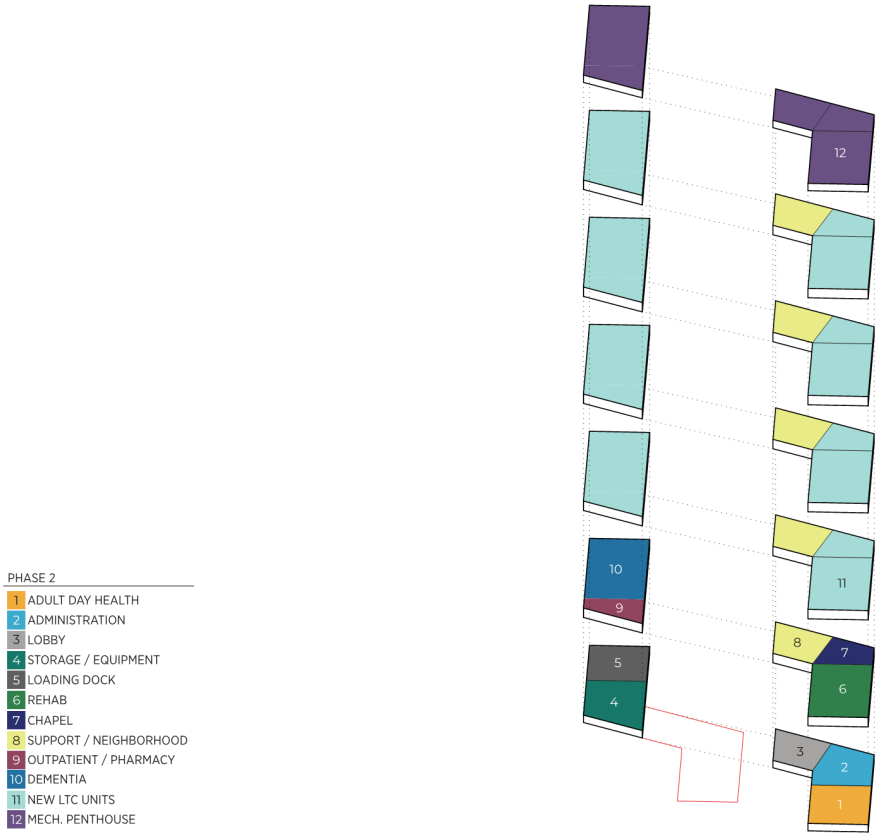
Conceptual Planning and Program Stacking - Facility Replacement

Phase 2 - Conceptual Site Planning

Phase 2 - Conceptual Axonometric

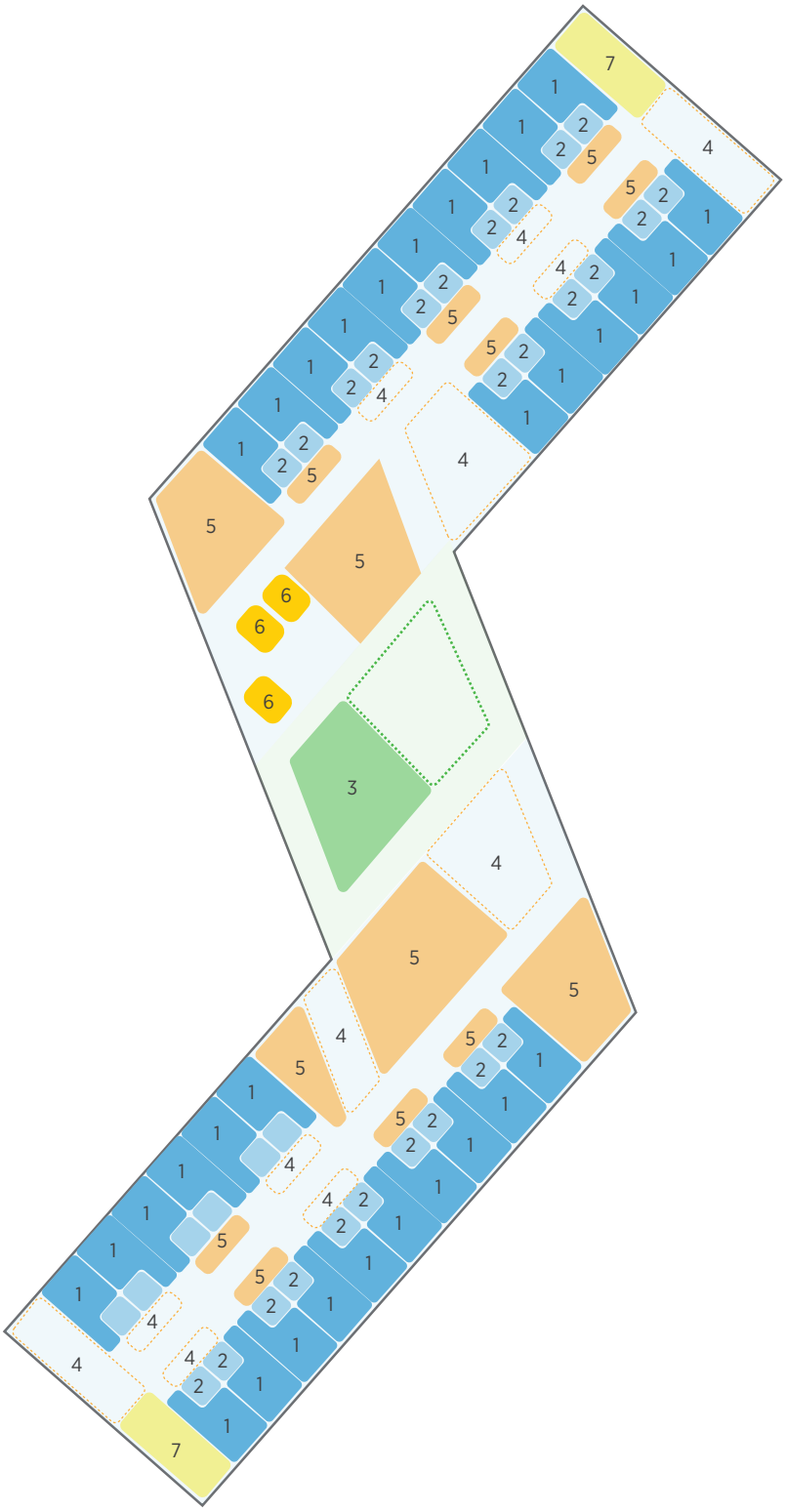


Phase 2 - Exploded Conceptual Axonometric



Conceptual Planning and Program Stacking - Facility Replacement

Conceptual Typical Unit Layout



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The goal of this rapid planning effort was to assess the community needs and desires for the Soldiers' Home in Holyoke and develop a feasible recommended building size and program options that balance that with the demographic data, site capacity, funding source requirements and other fixed constraints that, taken together, shaped the recommended building program and size outlined in this report.

VA STATE HOME CONSTRUCTION GRANT APPLICATION

Since the VA State Home Construction Grant Program is the primary funding source, the fixed submission deadlines of that program drive the next steps. That program requires the Initial Application to the VA be made by April 15th, 2021. The next opportunity to apply would be one year later, on the same day in 2022. The Initial application requires that schematics for the proposed project be submitted along with detailed cost estimates.

Upon the selection of the approved designer, there will be limited time to develop the required materials. For context, it took the Chelsea Soldiers' Home project seven months to prepare that same submission, which included much of a DCAMM certified study and schematic design. Unlike Chelsea, the Commonwealth now has a roadmap to compete the application materials, using the Chelsea submission as a guide, so many of the unknowns that Chelsea faced should be easier to address today.

Following April 15th grant submission deadline, VA requires a series of additional submissions in the subsequent months.

The next deadline after April 15, 2021 is August 1, 2021, on which a much-developed design, specifications and cost estimate must be submitted to the VA State Home Construction Grant Program along with environmental assessment, Certificate of State matching funds and other certifications. Once the VA notifies applicants of project approval and funding status the project must meet additional deadlines to maintain grant award. Because the grant program was designed for projects much smaller than what is being proposed for Holyoke, the team will have to work exceedingly quickly to meet the deadlines.

The mission of the Soldiers' Home in Holyoke is to provide the Commonwealth's Veterans "Care with Honor and Dignity". With this as the guiding principle underlying the work to be done at the Home, we believe the findings of this study provide a roadmap for a revitalization effort that will preserve and enhance that charge for generations of Veterans to come.

APPENDIX

NEEDS ASSESSMENT

Community Living Center (180-204 Replacement Beds)
Holyoke Soldiers' Home
Holyoke, Massachusetts

I. Project Overview

The long-term care facility located at the Soldiers' Home in Holyoke (HLY) must be replaced or reconfigured. It is functionally obsolete with multi-occupancy bedrooms and shared toilets, with current ratios of up to 9 residents per toilet. It does not meet the U.S. Department of Veterans Affairs (VA) nor Centers for Medicare & Medicaid (CMS) space requirements for privacy, social activities space, access to private bathroom facilities, and general quality of life.

The devastating impact of Covid-19 underscored the functional obsolescence of the facility and the enhanced need to support critical infection control protocols and requirements. While the Commonwealth has completed and continues to deploy short term mitigation strategies, a long-term permanent solution is necessary.

HLY proposes to develop a new Community Living Center (CLC) which meets all current criteria for standard-of-care and embodies the architectural requirements in the VA's *Small House Model Design Guide*, issued in January 2017. The "House" is a residence for 10, 12 to 14 veterans. The House is based on the "small house" model of care, which is defined as intimate, small scale, and residential to accomplish the goal of skilled care in a home setting. The "Home" implies a nurturing, familial environment. The purpose of the House design is to foster a feeling of family and to help support mutually beneficial relationships between residents and staff. The House functions as a household while providing added safety and security for the resident veterans[i].

The facility proposed for HLY will be comprised of houses of 12 veterans, grouped into cohorts of two homes, or 24 veterans, although one home will be a stand-alone home with only 12 veterans. The Needs assessment indicates that between 180 and 204 beds (between 15 and 17 houses) are required in the Holyoke Soldiers' Home facility. Fewer than 180 beds would not meet the future demand for long-term care beds, meaning a larger reliance on community beds would be necessary, which is not typically the veteran or the veteran family's preference. Any more than 204 long-term beds would not be supported by the current site and would not allow for optimal utilization rates.

II. History of the Holyoke Soldiers' Home

Holyoke Soldiers' Home was established in 1952 following World War II, when the commonwealth saw an influx of wounded veterans requiring long-term care. At that time, the only designated state facility for this purpose was the Soldiers' Home in Chelsea (CHE), approximately 100 miles to the east, outside of Boston. To accommodate veterans on CHE's growing waiting list and to provide services in the Central/Western regions of Massachusetts, Holyoke Soldiers' Home was established. Its mission is to provide 'Care with Honor and Dignity' in the best possible health care environment for eligible veterans who reside in the Commonwealth of Massachusetts.

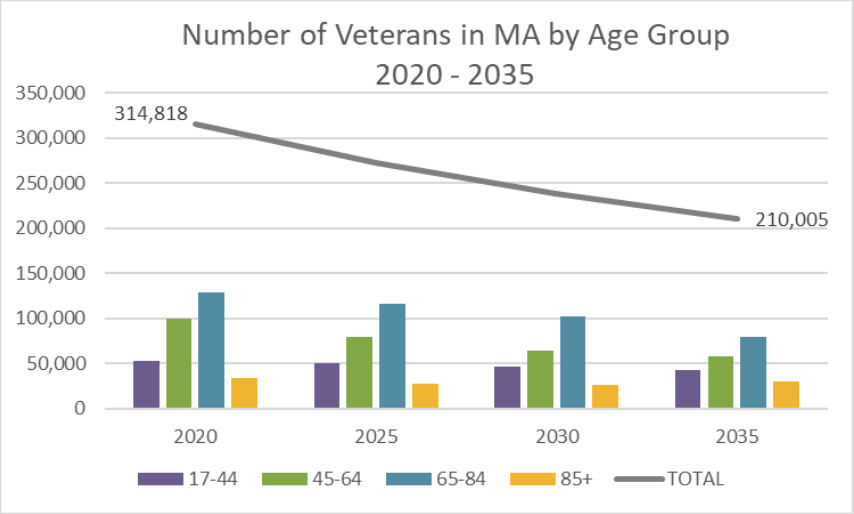
Today HLY is a fully accredited, multi-faceted, multi-building health care campus that offers veterans long-term care and select outpatient care services including primary care, ophthalmology, optometry, podiatry, hematology, urology, dental and pharmacy services. A domiciliary providing temporary housing is also located in a separate building on the site.

The Holyoke Soldiers' Home campus atop Cherry Hill, as seen from Interstate 91

III. Analysis of Need

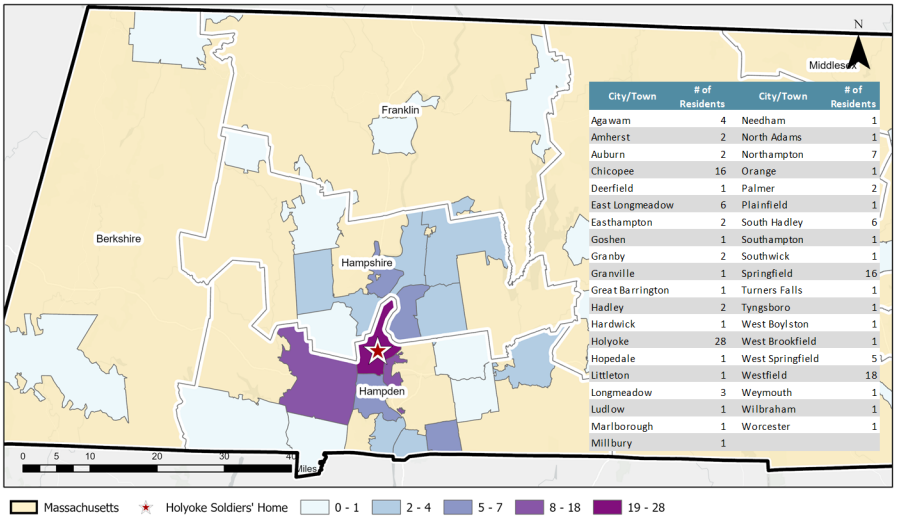
a) Veteran Population and 2035 Forecasts

The current veteran population in Massachusetts is 314,818. This number is projected to decline to 210,005 (33%) by 2035 according to the VA National Center for Veterans Analysis and Statistics[ii]. Notably, the population age 85+ (the average age of a resident) will decline by 13%.



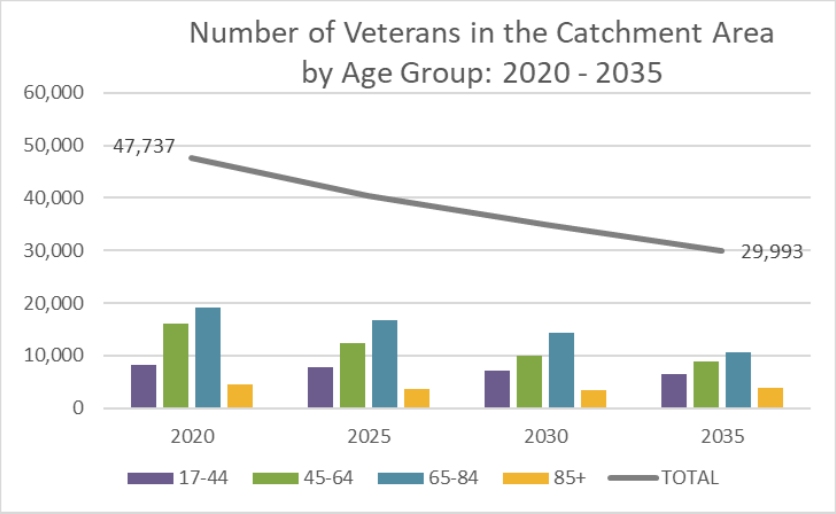
Although veterans residing anywhere in the commonwealth are eligible for care at Holyoke Soldiers' Home, the overwhelming majority of current residents live in Berkshire, Franklin, Hampden or Hampshire County prior to moving to HLY because veterans typically prefer to utilize long-term care facilities close to their homes. These four counties make up the Holyoke Soldiers' Home catchment area, while the other counties in Massachusetts constitute the Chelsea Soldiers' Homes catchment area. Within the HLY catchment area, 70% of residents originated from Hampden County and 20% came from the town of Holyoke specifically, as displayed in the following map.

In-House Veteran Community of Residence Prior to Moving to Holyoke Soldiers' Home



City/Town	# of Residents	City/Town	# of Residents
Agawam	4	Needham	1
Amherst	2	North Adams	1
Auburn	2	Northampton	7
Chicopee	16	Orange	1
Deerfield	1	Palmer	2
East Longmeadow	6	Plainfield	1
Easthampton	2	South Hadley	6
Goshen	1	Southampton	1
Granby	2	Southwick	1
Granville	1	Springfield	16
Great Barrington	1	Turners Falls	1
Hadley	2	Tyngsboro	1
Hardwick	1	West Boylston	1
Holyoke	28	West Brookfield	1
Hopedale	1	West Springfield	5
Littleton	1	Westfield	18
Longmeadow	3	Weymouth	1
Ludlow	1	Wilbraham	1
Marlborough	1	Worcester	1
Millbury	1		

47,737 veterans currently live in HLY's catchment area. By 2035, this number is projected to decline to 29,993 (37%), which is a slightly steeper decline than the veteran population of the Commonwealth (33%). Specifically, the population age 85+ is forecasted to decline by 12% and the population age 65-84 (the next most common group) is forecasted to decline by 44%.



When 2019 long-term care bed occupancy rates by age and gender are applied to the 2035 projected population in the HLY catchment area, the projected bed need is 178 beds, as displayed in the following chart.

Long Term Care								
Age	FY19 Census			Vet Pop Forecast		Projected 2035 Census (population change only)		
	Male	Female	Total	Male	Female	Male	Female	Total
85+	133	9	142	-13%	30%	116	12	128
65-84	90	1	91	-48%	50%	47	2	49
45-64	2	-	2	-47%	-22%	1	-	1
17-44	-	-	-	-22%	-12%	-	-	-
Total	**225**	**10**	**235**	**-40%**	**4%**	**164**	**14**	**178**

Note: The census represents 2019 data, which was largely before the Covid-19 pandemic. Long-term care census levels dropped significantly during the pandemic, but this analysis uses 2019 data and assumes that occupancy levels will return to pre-pandemic levels by 2035.

b) *Mitigating Characteristics of the Veteran Population of the Proposed Catchment Area*

There are four factors, however, that are anticipated to partially offset the forecasted veteran population decline:

1. Age and period of service
2. Disability
3. Gender and waiting list
4. VA-eligible residents in community nursing homes

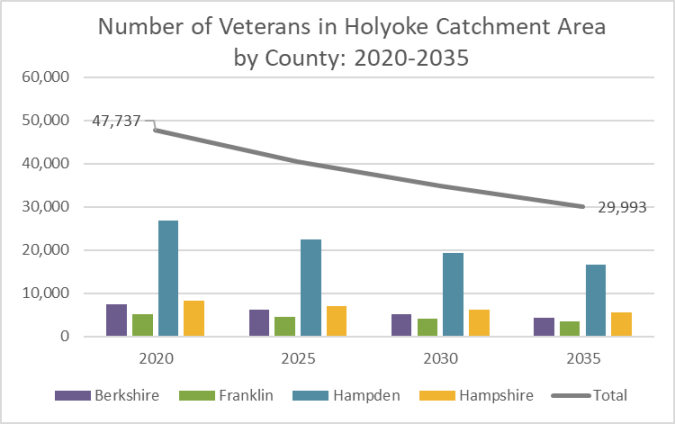
At the same time, there is a national trend away from institutional long-term care and toward more home and community-based supports. Driven by cost, patient preference and quality-of-care objectives, families are attempting to maintain elderly members in their own homes as long as possible, as evidenced by the increasing average age of long-term care residents[iii].

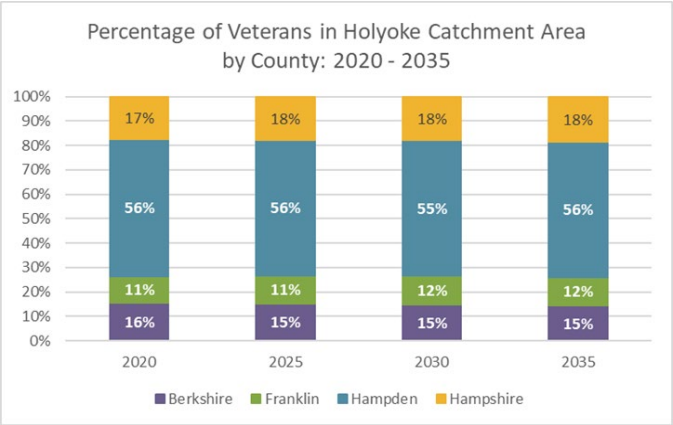
Age and Period of Service

The HLY long-term care facility caters to an older population, with an average resident age of 86.

Nearly half of HLY catchment area veterans are over 65 years of age (49%), with 9% of veterans 85 years or older. While the catchment area veteran population is expected to decline by 37% by 2035, the 85+ population will decline by only 12%. By 2035, the 85+ population will grow to 13% of the total veteran population, with the over 65-year cohort remaining unchanged at 49%.

Although the total number of veterans aged 65+ is anticipated to decline in coming years, this age group will be increasingly represented by the Vietnam era and Gulf War era veterans. By 2035, no WWII era and few Korean War era veterans will remain.

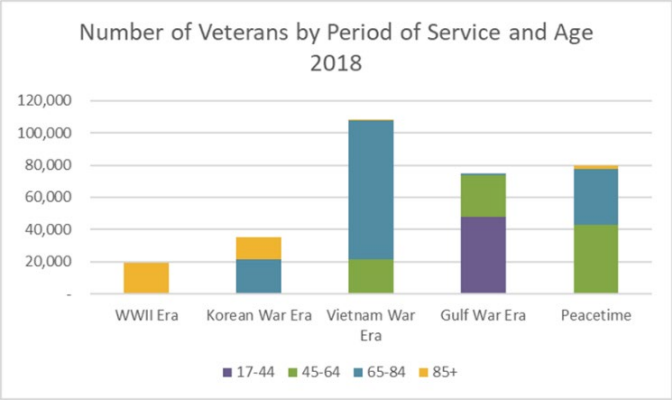




Demographics Needs Assessment – The Innova Group

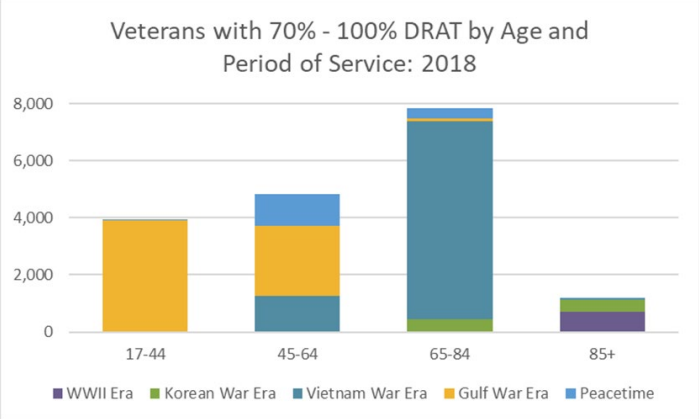
Massachusetts veterans by war and peacetime era and age cohort in 2018 are shown at right.

- Vietnam era veterans make up the largest portion of MA veterans at 34%
  - 80% of Vietnam veterans are 65-84
- Peacetime and Gulf War eras each constitute about 25% of MA Veterans
  - Over half of peacetime veterans are estimated to be 45-64
  - Over half of Gulf War veterans are 17-44
- Women represent 13% of Gulf War era veterans – the highest of any period of service



Disability

Vietnam and Gulf War era veterans are experiencing significantly greater levels of disability than previous eras, potentially offsetting future decreases in the veteran population. Increases are attributed to chemical exposure in Vietnam and new patterns of injuries among Gulf War era veterans, many of whom experienced multiple tours of duty. Furthermore, veterans who were exposed to Agent Orange or who experienced traumatic brain injury (TBI) or post-traumatic stress disorder (PTSD) are at increased risk for dementia, according to a 2016 UMASS report to the LTC Commission.[iv] The highest percentage of 65-84 year old veterans with a disability rating (DRAT) of 70 percent or greater in 2018 are from the Vietnam era. These veterans will continue to need care for the next 20 years. Of disabled MA veterans, 49% of Vietnam veterans and 53% of Gulf War era veterans have a disability rating of 50% or more compared to 30% for Korean War veterans.



	WWII Era		Korean War Era		Vietnam War Era		Gulf War Era		Peacetime	
DRAT	#	%	#	%	#	%	#	%	#	%
10% or 20%	1,085	43%	2,320	49%	7,825	37%	4,570	28%	4,532	50%
30% or 40%	463	18%	1,007	21%	2,789	13%	2,999	19%	1,494	16%
50% or 60%	269	11%	502	11%	2,086	10%	2,155	13%	1,084	12%
70%, 80%, 90% or 100%	708	28%	876	19%	8,233	39%	6,460	40%	1,998	22%
Total	2,525		4,704		20,933		16,184		9,108	

Source: American Community Survey (ACS) Public Use Microdata Sample (PUMS) 5-Year Estimate 2014-2018

With increasing disability, there is often a high long-term care "use-rate per person" in a population. In other words, while there is a forecasted decline in the number of Veterans, the rate at which that lower population requires long-term care is anticipated to increase.

Projecting 20 to 30 years into the future, an estimated 30% of veterans deployed to Iraq and Afghanistan will require long-term care. [v]

Gender and Waiting List

Females are growing as a percentage of veterans, although they still represent a minority of veterans in the older age groups. Six percent of veterans aged 65+ in HLY's catchment area is now female, with this cohort growing to 13% by 2035. More private rooms and the VA "Small Home Model" will help support the female population and potentially increase demand.

The Holyoke Soldiers' Home has a waiting list of approximately 40 veterans as of October 2020 who might "backfill" any excess capacity from reduced demand related to demographic trends, assuming there is continued and expanded interest in the Soldiers' Home. Previous waiting lists were in the 120-140 range.

VA-Eligible Residents in Community Nursing Homes

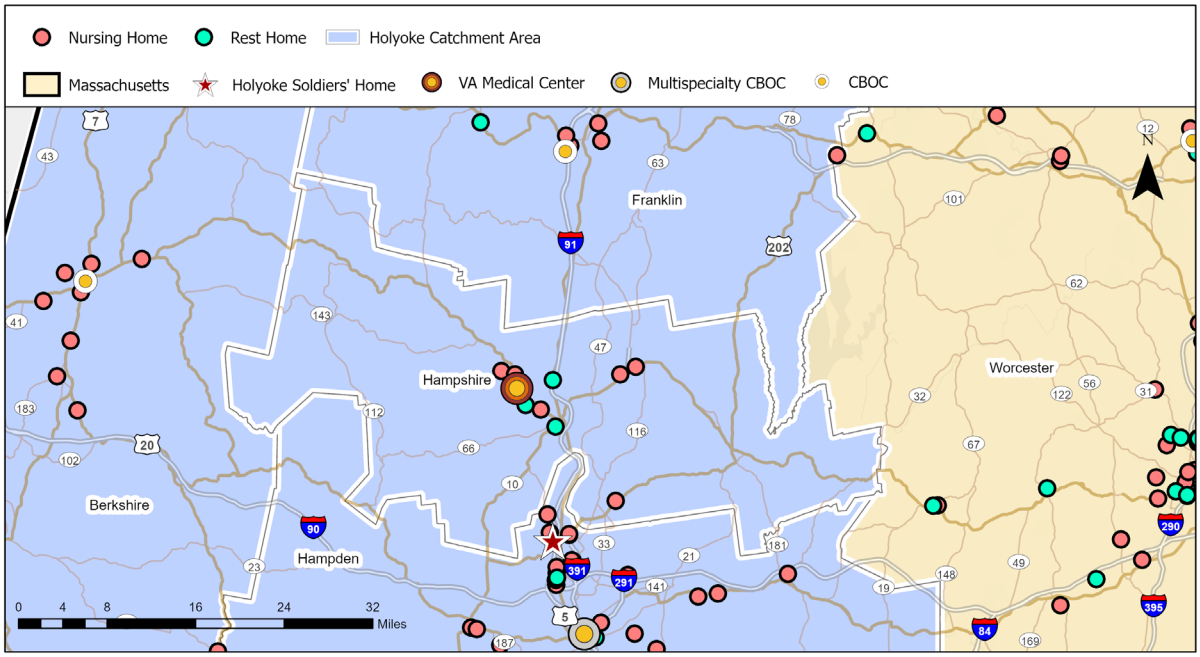
Community nursing homes are currently caring for an estimated 150 eligible VA beneficiaries[vi]. A portion of those VA-eligible beneficiaries would presumably be interested in residing in a renovated/new Holyoke Soldier's Home rather than a community nursing home.

Trend Toward Less Institutional Care

The growth in non-institutional long-term care services such as assisted living, adult day health services, in-home caregivers/aides and respite services is decreasing demand for institutional LTC services. Additionally, the Covid-19 pandemic is expected to further exacerbate this trend toward home and community care for elders[vii].

c) *Availability of Community Nursing Homes*

The map below shows the location of community nursing and rest home facilities in HLY catchment area.

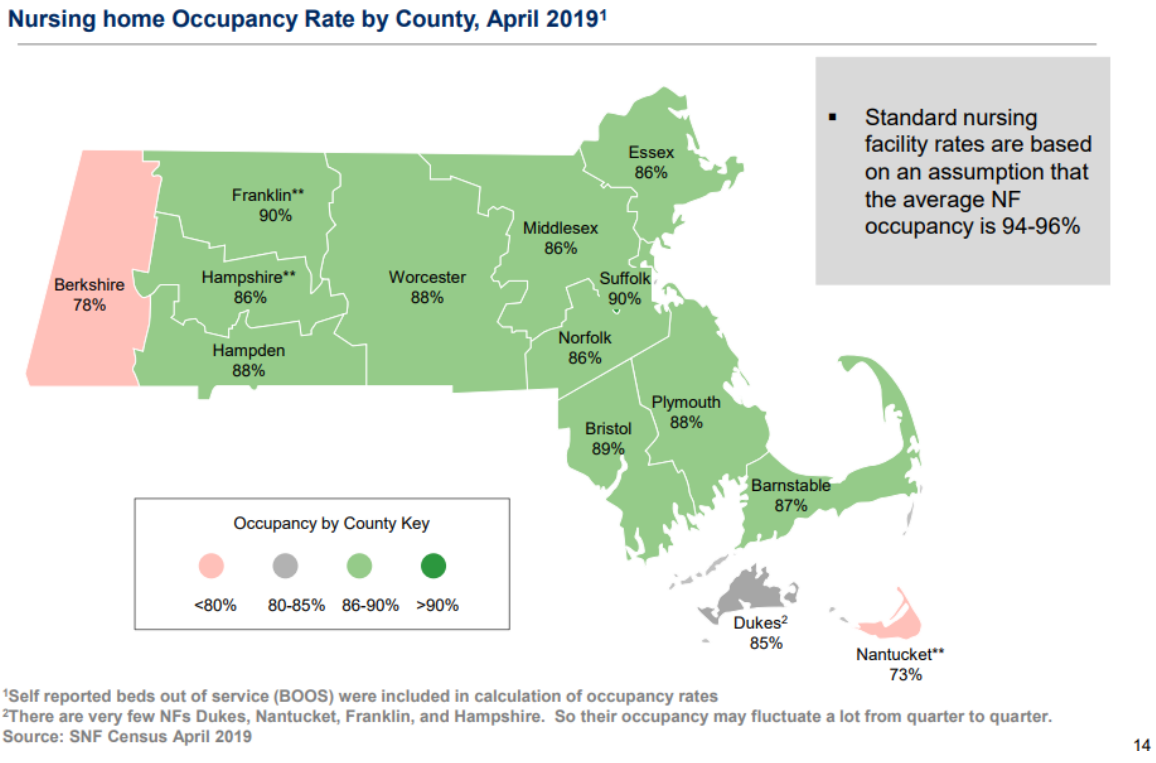


Although the map shows the location of long-term care facilities, it does not indicate their bed capacity or the population density. There are 6,329 community-based beds in the 4-county Holyoke Soldiers' Home catchment area. The table below summarizes operating beds and population-to-bed ratios (65 years and older) per nursing home and rest home bed by county. The lower the ratio, the higher the availability of beds per resident 65+; the lower the ratio, the fewer beds per 65+ resident. Berkshire County has the lowest ratio, and therefore the greatest availability of beds, while Franklin is the least served county in HLY's catchment area with 34.1 residents over the age of 65 per residential care bed.

County	Populaton	# Aged 65+	% Aged 65+	Nursing Home Beds	65+ per NH Bed	Rest Home Beds	65+ per RH Bed	Total Beds	Total 65+ per Bed
Berkshire	126,348	29,239	23%	1,573	18.6	-	-	1,573	18.6
Franklin	70,963	15,424	22%	428	36.0	24	17.8	452	34.1
Hampden	470,406	78,765	17%	3,540	22.3	158	22.4	3,698	21.3
Hampshire	161,355	27,968	17%	788	35.5	125	6.3	913	30.6
TOTAL	**829,072**	**151,396**	**18%**	**6,329**	**23.9**	**307**	**20.6**	**6,636**	**22.8**

Sources: The Commonwealth of Massachusetts Executive Office of Health and Human Services Division of Healthcare Facility Licensure and Certification, August 11, 2020. Veteran Administration Site Tracking System (VAST), January 2020, American Community Survey (ACS) Public Use Microdata Sample (PUMS) 1-Year Estimates 2018 Table ID DP05

Total reported statewide nursing home occupancy was 87% as of April 2019 (pre-Covid-19) with county level occupancy shown below, according to a September 2019 report by the Nursing Facility Task Force. Hampden County, the location of the Holyoke Soldiers' Home, has an occupancy rate of 88%, which is similar to the state average. This study assumes that the average nursing facility occupancy is 94-96% [viii] All counties in Massachusetts have an average nursing home occupancy rate below the efficient occupancy rate, as illustrated below.



Assuming a target occupancy of 95%, there are approximately 610 pre-Covid "available" beds in the market, as displayed in the following chart.

County	Nursing Home Beds	Calculated NH Census Goal @ 95% Occupancy Target	Occupancy per 2019 Nursing Home Task Force Report*	Calculated Current NH Census	Calculated "Available" Census @ 95% Occupancy
Berkshire	1,573	1,494	78%	1,227	267
Franklin	428	407	90%	385.2	21
Hampden	3,540	3,363	88%	3,115	248
Hampshire	788	749	86%	677.68	71
TOTAL	**6,329**	**6,013**		**5,405**	**608**

Although there are theoretically 610 available beds in the market, they might not all be desirable or accessible to the Soldiers' Home population. Additionally, literature supports the lifelong impact of military culture on the well-being of veterans, with many profiting from a return to military-like culture as they age and potentially experience dementia. [ix] Therefore, although community nursing homes may

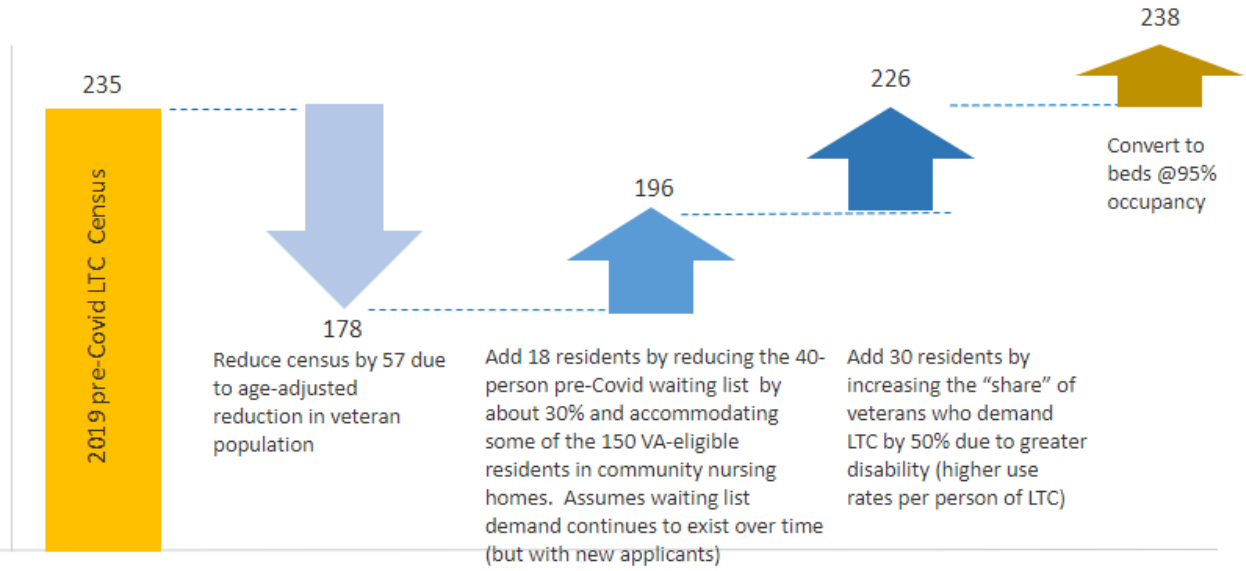
be available, reduced reliance them in the future will be beneficial to veterans and support demand for beds at HLY despite the declining veteran population.

IV. Forecast Scenarios

The Holyoke Expedited Capital Project – Rapid Planning Phase developed three different scenarios to address the long-term care needs of veterans in the Holyoke Soldiers' Home catchment area:

1) Waitlist & Disability Focused
2) Generational Shifts
3) Community Partnerships

Scenario 1: Waitlist & Disability: 200 – 250 beds
While the four-county veterans' population is projected to fall 37% by 2035, the 85+ demographic reduces at only 12% and demand will remain strong with waiting lists, recapture of VA-eligible residents in community nursing homes and increasing disability levels of veterans.

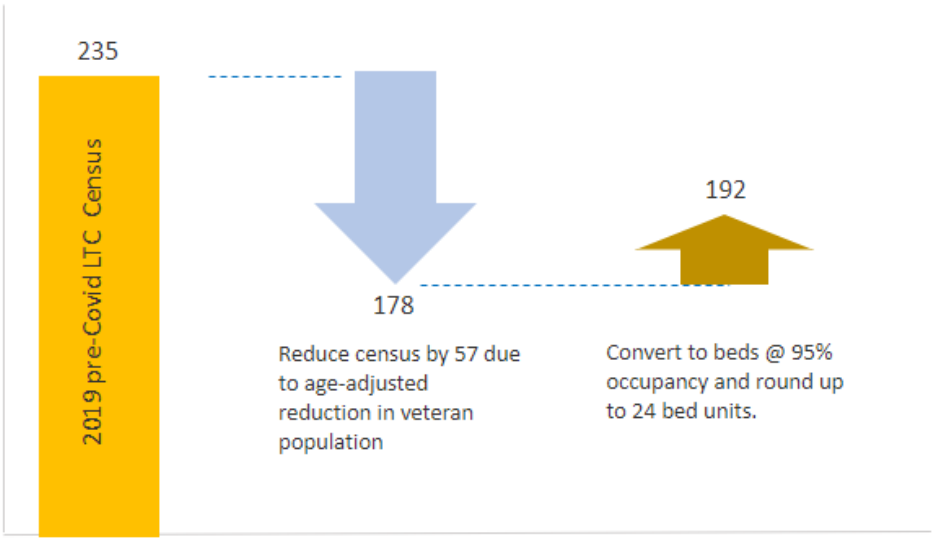


Holyoke LTC Census & Bed Projection 2035

- **Primarily advocated by Community Groups during Stakeholder Engagement Workshops**
- Reduces initial census based on projected veteran population decline
- Backfills from HLY waitlist and VA-eligible residents in community nursing homes to fill additional beds
- Assumes greater demand for LTC per veteran due to higher service-related disability ratings
- Converts to beds at 95% occupancy

Scenario 2: Generational Shifts: 150 – 200 beds

While the four-county veterans' population is projected to fall 37% by 2035, the 85+ demographic reduced at only 12%. This scenario assumes no backfill with the waiting list or VA-eligible residents in community nursing homes. It also does not assume greater demand associated with increased disability.

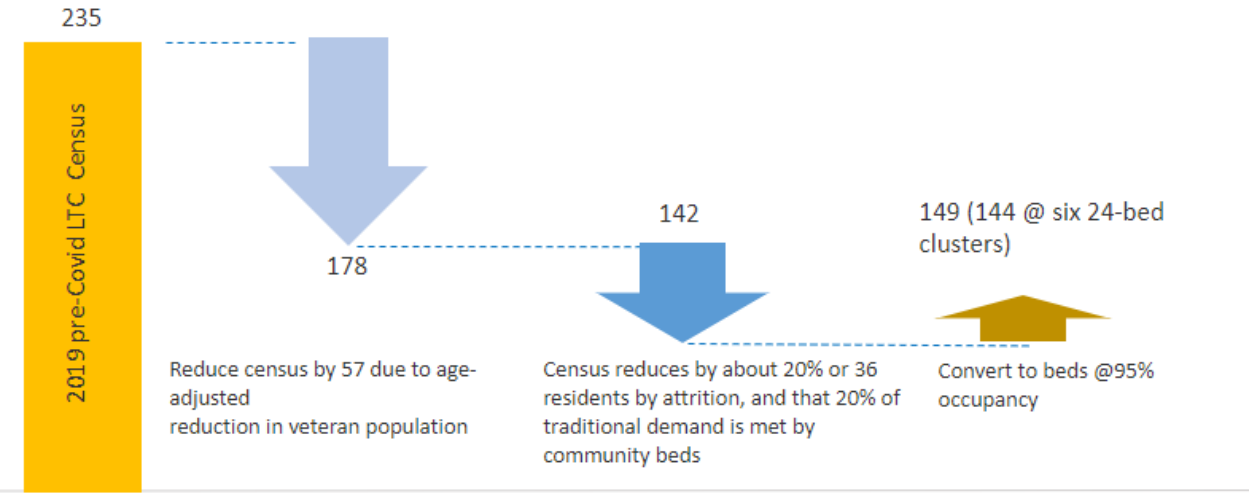


Holyoke LTC Census & Bed Projection 2035

- **Most defensible scenario**
- Reduces initial census based on projected veteran population decline
- Assumes no backfill from waitlist and VA-eligible residents in community nursing homes
- Converts to beds at 95% occupancy and rounds up to 24 bed units
- Focuses more on demographic projections and makes fewer assumptions about impact of disability or desire of veterans on a waiting list or community nursing homes
- Option to provide adult day health services on campus as well, especially to support demand for non-institutional care

Scenario 3: Community Partnerships: fewer than 150 beds

There are estimated to be 610 unfilled nursing home beds in the catchment area, with approximately 250 in Hampden County alone. In this scenario, the waiting list is not accommodated and 20% of the current Soldiers' Home LTC residents move to community LTC beds.



- **Least desirable scenario**
- Reduces initial census based on projected Veteran population decline
- Census further reduces by attrition and 20% of traditional demand met by community beds (i.e. not replace 20% of residents after they are deceased)
    - 610 unfilled nursing home beds are estimated in the catchment area
    - Assumes Holyoke Soldiers' Home waiting list will not become excessively long as it reduces available beds

V. Holyoke Expedited Capital Project – Rapid Planning Phase Recommendation

Long Term Care

It is recommended that Holyoke Soldiers' Home continues to analyze the cost of both a complete replacement as well as a renovation plus an addition to provide between 180 and 204 long-term care beds. Either a new facility or a renovated facility with an addition will provide single-patient rooms, which will increase veteran satisfaction and adhere to current infection control standards. It will also provide more indoor as well as outdoor activity spaces. Although a renovation with addition is the less costly option, it presents many logistical challenges, including, but not limited to the need for the building to remain occupied during renovation. Either facility course of action will support the projected 2035 veteran decreased census and allow space for possible increased demand for care due to higher service-related disability ratings and to allow for provision of care to residents currently on the waitlist or who are VA-eligible and residing in community nursing homes.

Domiciliary

The VA is transitioning from the domiciliary (purely housing with no health care or rehabilitative services) model to the Mental Health Residential Rehabilitation and Treatment Programs (MH RRTPs) model. MH RRTPs are designed to provide state-of-the-art, high-quality residential rehabilitation and treatment services for veterans with multiple and severe medical conditions, mental illness, addiction, or psychosocial deficits[x]. Holyoke Soldiers' Home does not wish to transition to a MH-RRTP model of care and will therefore discontinue their current domiciliary either by closure or attrition. Discontinuation of the domiciliary will allow for more space on the campus to support the long-term care mission.

Adult Day Health

Stakeholder Engagement Workshops indicate that patients, families and the Holyoke Soldiers' Home leadership are interested in providing adult day services. The Northampton VA Medical Center, located approximately 25 miles to the north of HLY, has also indicated an interest in adult day services at the new facility. This VAMC currently uses community providers to provide adult day services, but they would be interested in contracting with Holyoke Soldiers' Home if they provide this service[xi].

Outpatient

There are available outpatient services in market, including the Veterans Health Administration facilities that are anticipated to expand in scope. It is costly to provide outpatient care at HLY, and the Commonwealth could consider instead offering transportation services to existing outpatient providers.

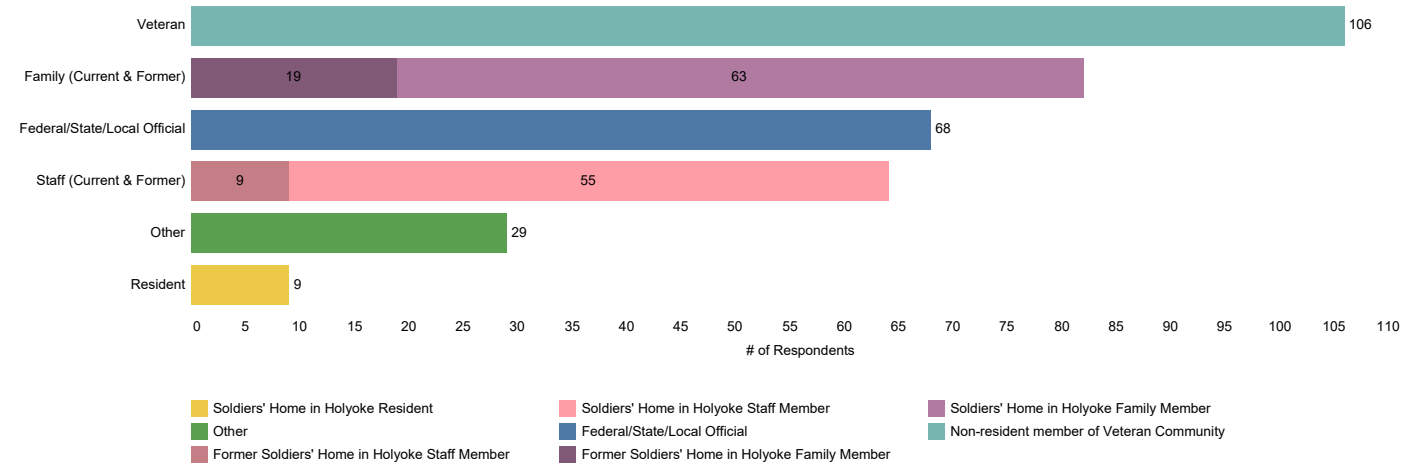
[i] https://www.cfm.va.gov/til/dGuide/dgSHModel.pdf VA U.S. Department of Veterans Affairs Small House (SH) Model design guide January 2017, revised March 2019
[ii] https://www.va.gov/vetdata/veteran_population.asp Table 9L: VetPop2018 County-Level Veteran Population by STATE, AGE GROUP, GENDER, 2018-2048
[iii] Centers for disease Control and Prevention: The changing profile of Nursing Home Residents 1985-1997. file:///C:/Users/sgoodwin/Downloads/cdc_5770_DS2.pdf

[iv] UMASS Medical Presentation to LTC Commission_4_12_16.pdf
[v] UMASS Medical Presentation to LTC Commission_4_12_16.pdf
[vi] Interview with Northampton VAMC
[vii] Transcend survey of 1,000 family health care decision-makers: https://homehealthcarenews.com/2020/06/long-term-care-decision-makers-more-likely-to-choose-home-care-in-covid-19-aftermath/

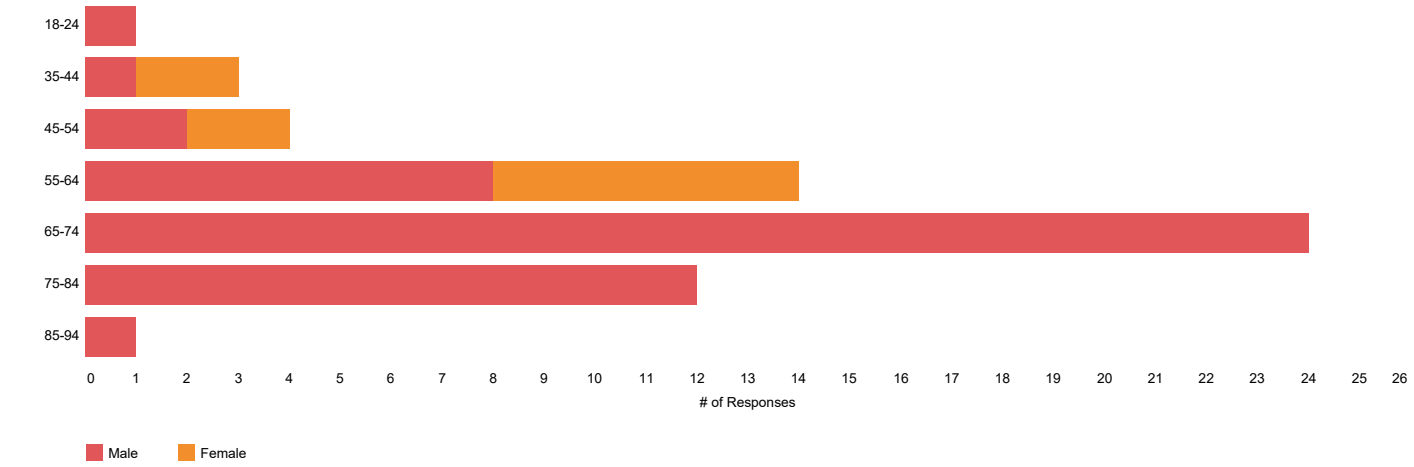
[viii] https://www.mass.gov/doc/september-20-2019-presentation/download#:~:text=The%20average%20occupancy%20rate%20is,Care%20Facts%3A%20Massachusetts%2C%20Cont.&text=More%20individuals%20are%20served%20at,nursing%20homes%20(%2D2%25)%E2%80%A6&text=residences%20(ALRs)%20provide%20choice%20and%20greater%20independence%20than%20nursing%20homes.
[ix] UMASS Medical Presentation to LTC Commission_4_12_16.pdf
[x] VA Veterans Experiencing Homelessness website: https://www.va.gov/homeless/dchv.asp
[xi] Interview, Northampton VAMC, September 1, 2020

Soldiers' Home in Holyoke Needs Assessment Survey Responses

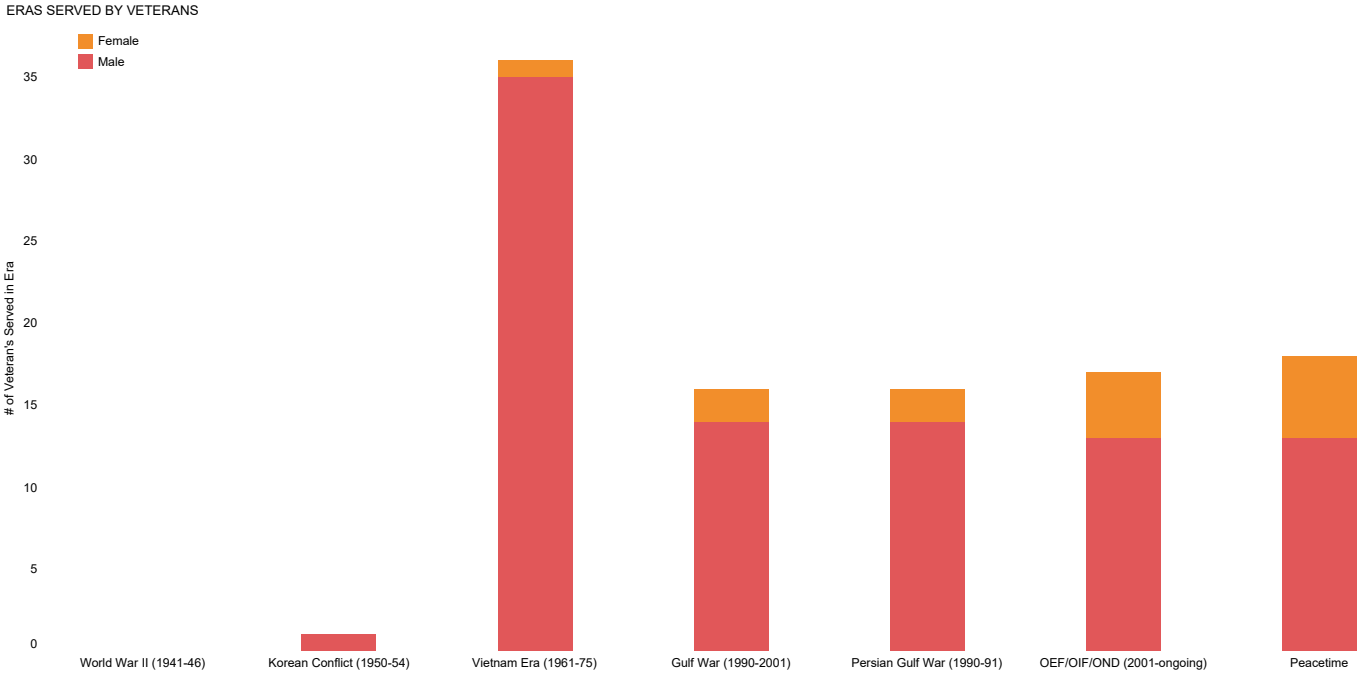
ABOUT THE SURVEY RESPONDENTS

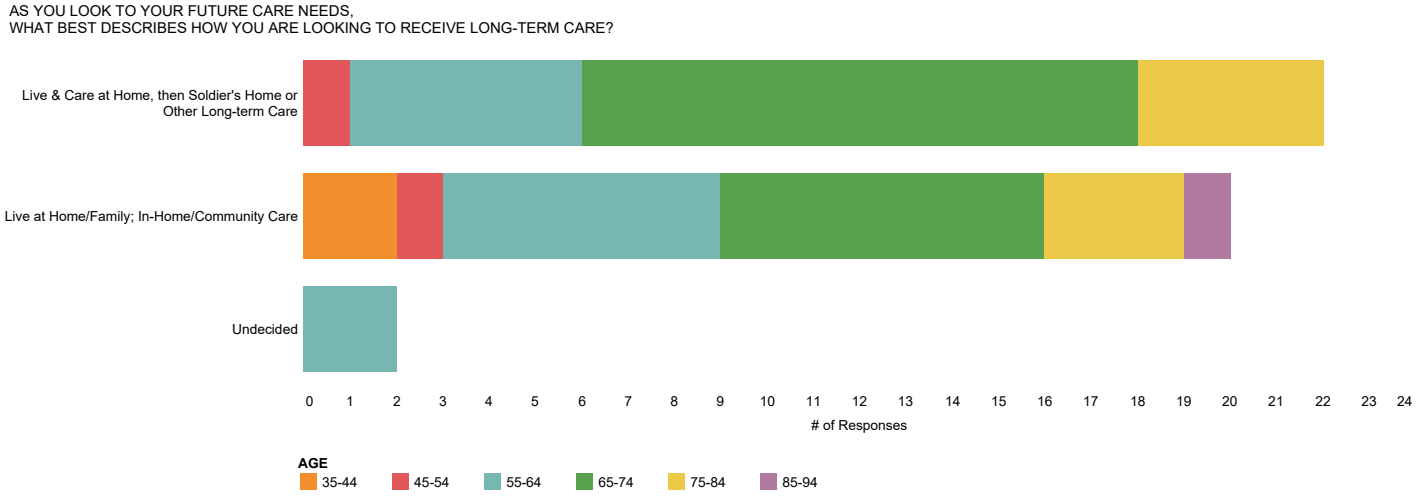


AGE

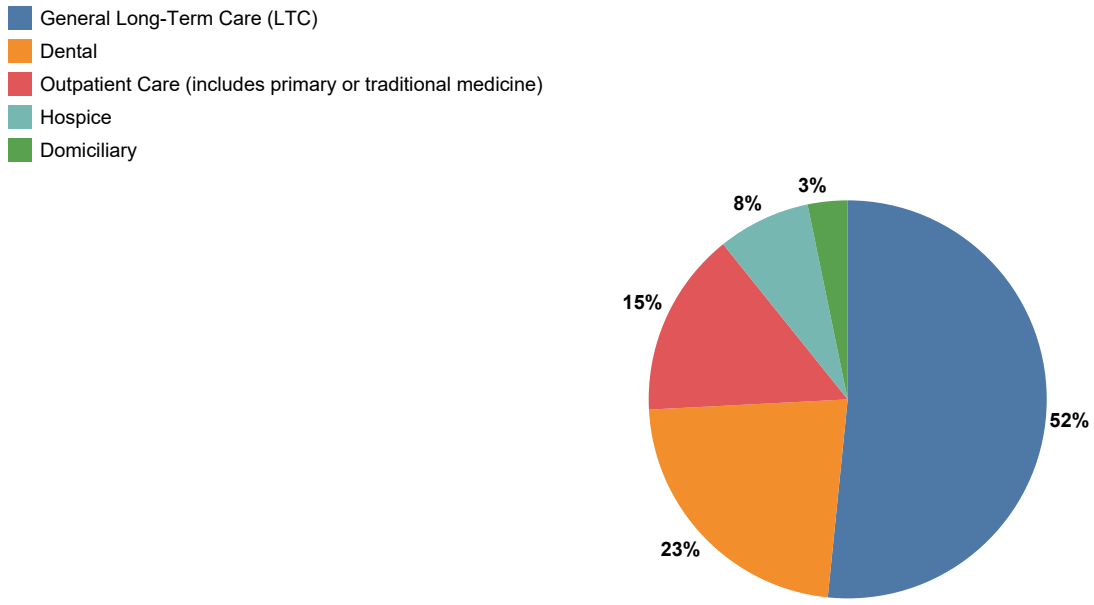


Soldiers' Home in Holyoke Needs Assessment Survey Responses

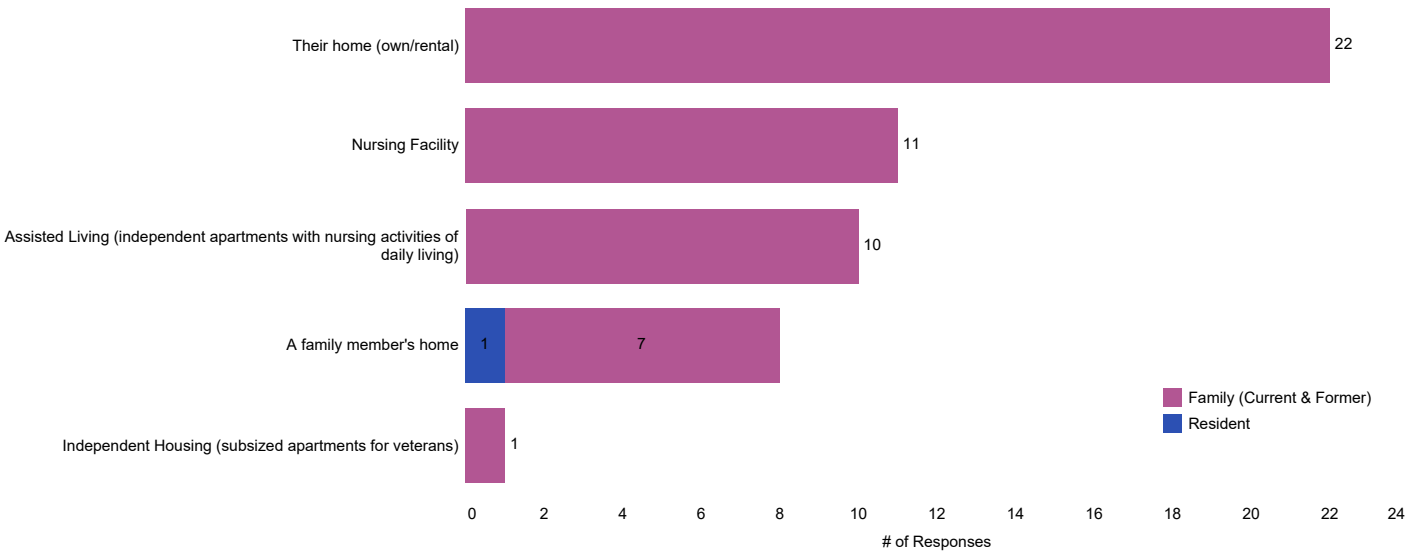




WHAT SERVICES HAS YOUR FAMILY MEMBER UTILIZED ON-SITE WHILE AT THE SOLDIERS' HOME IN HOLYOKE?
Q2

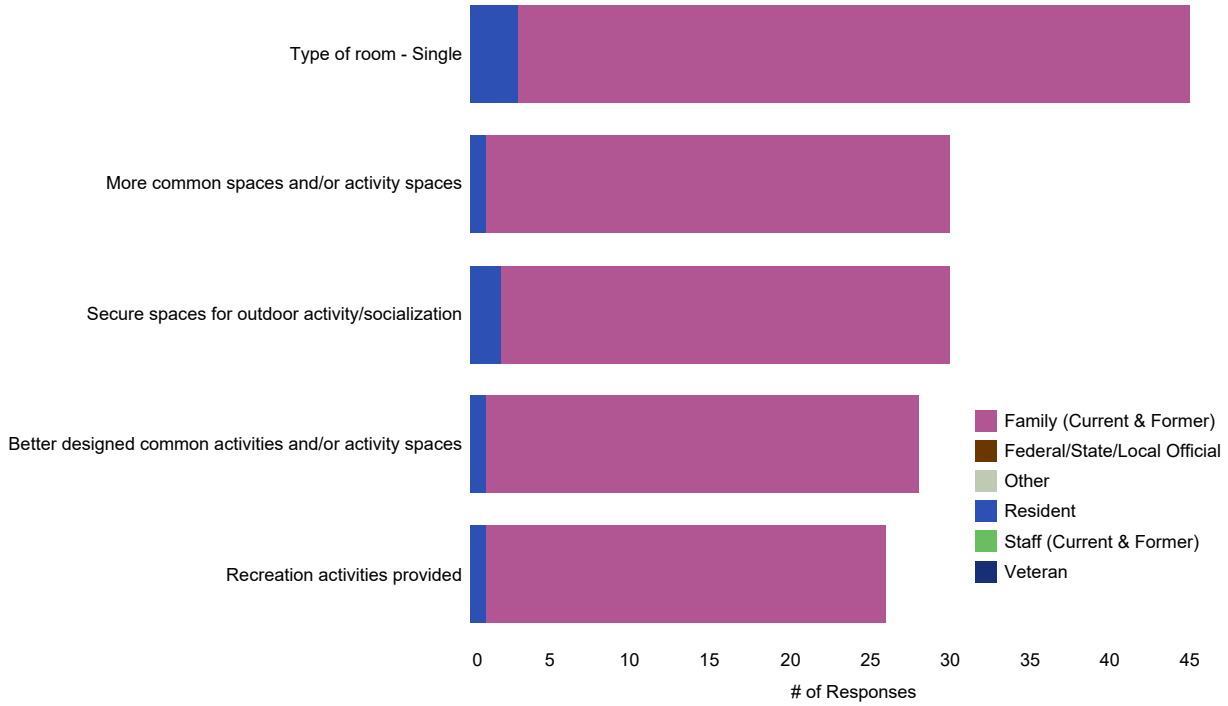


PRIOR TO YOU/YOUR FAMILY MEMBER COMING TO THE SOLDIERS' HOME IN HOLYOKE, WHAT WAS THEIR RESIDENCY STATUS?
Q3

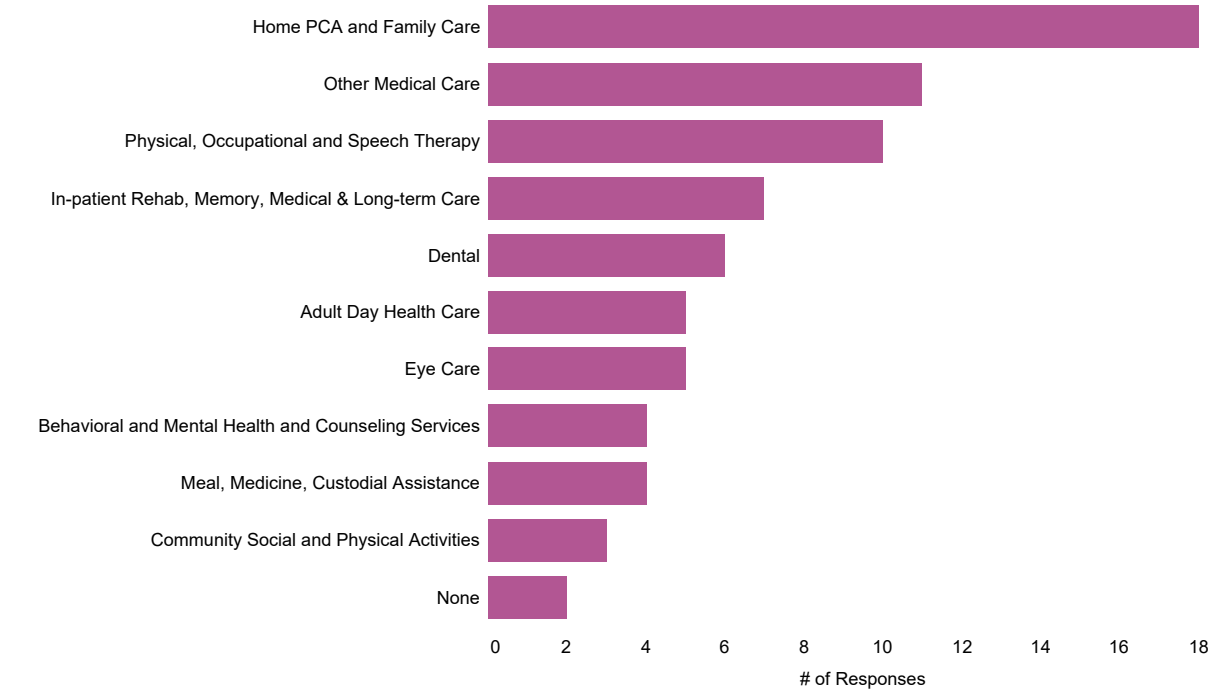


Soldiers' Home in Holyoke Needs Assessment Survey Responses

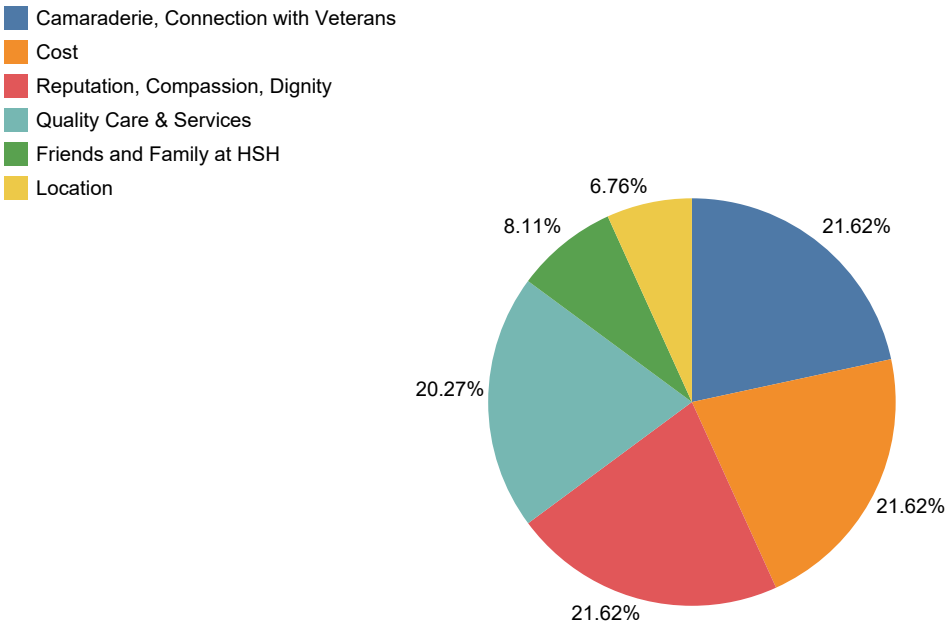
ARE THERE ANY CHANGES YOU WOULD RECOMMEND TO SUPPORT A BETTER RESIDENT EXPERIENCE?
Q4 (TOP FIVE CATEGORIES)



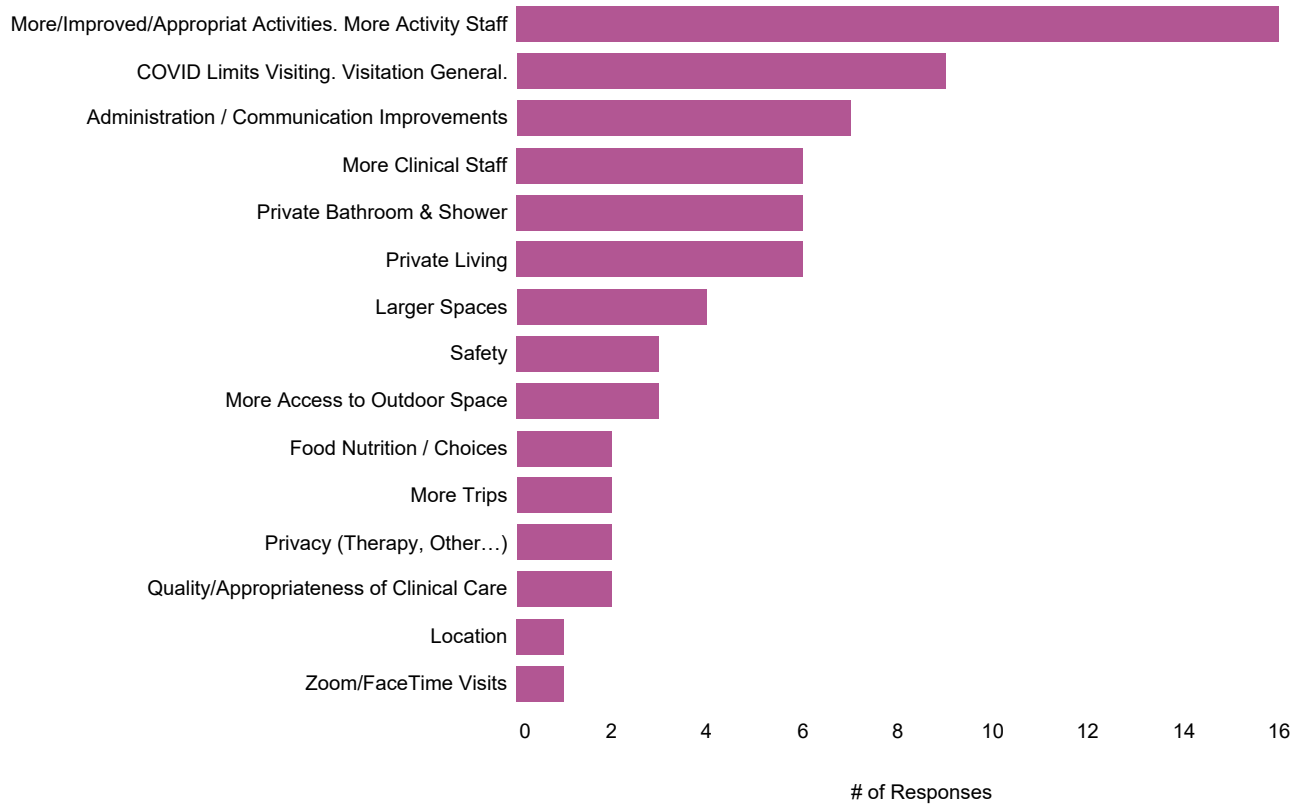
PRIOR TO ARRIVING AT THE SOLDIERS' HOME IN HOLYOKE,
WHAT TYPES OF SERVICES DID YOU/YOUR FAMILY MEMBER RECEIVE?
Q5 (FAMILY RESPONSES)



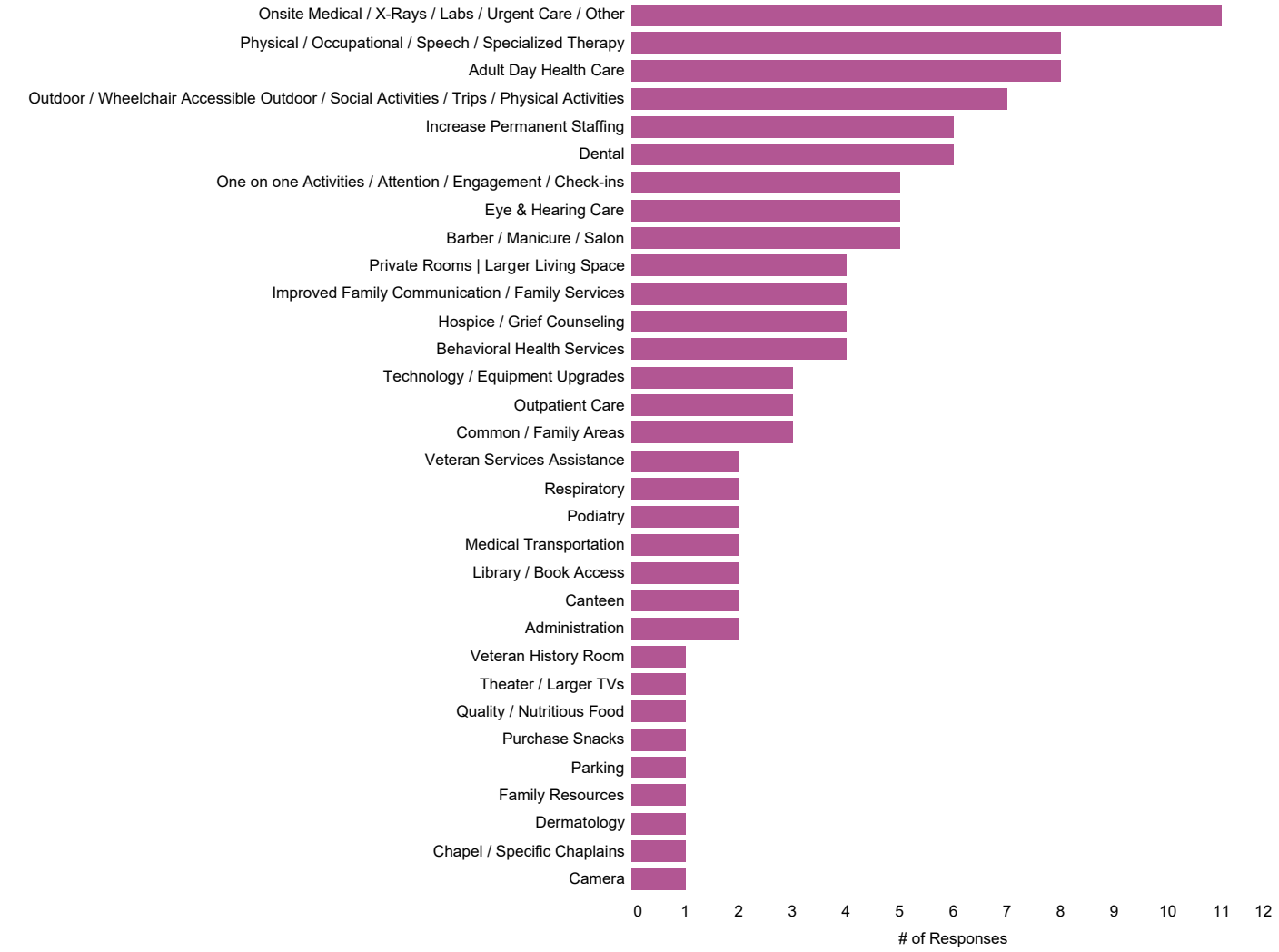
WHY DID YOUR FAMILY CHOOSE THE SOLDIERS' HOME IN HOLYOKE?
Q6



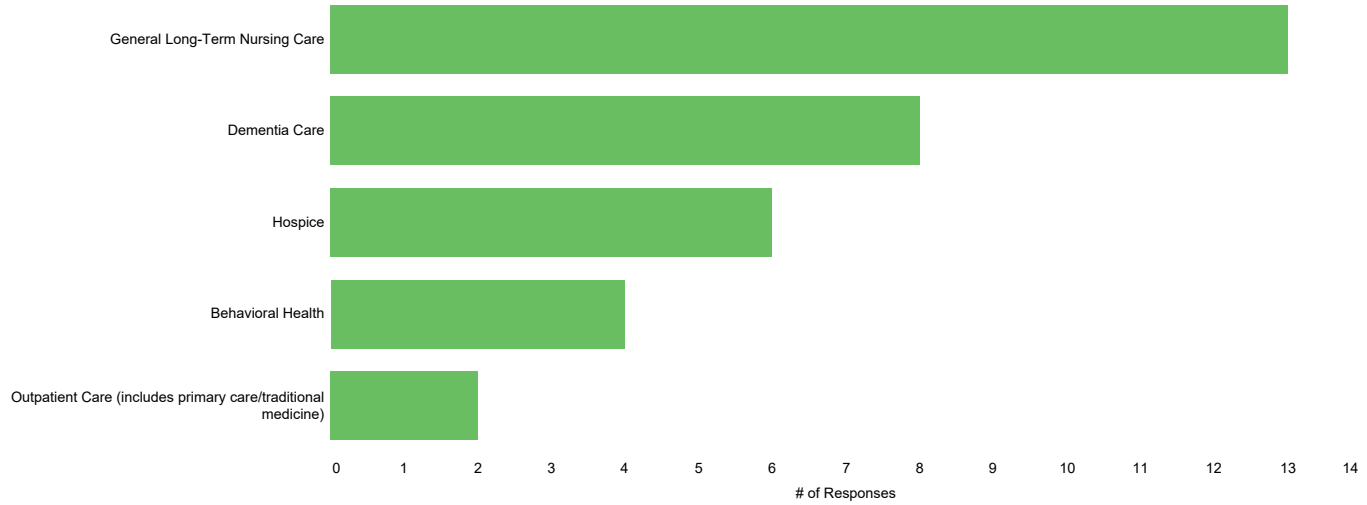
WHAT WOULD IMPROVE THE QUALITY OF LIFE FOR YOU/YOUR FAMILY MEMBER AT THE SOLDIERS' IN HOME?
Q7



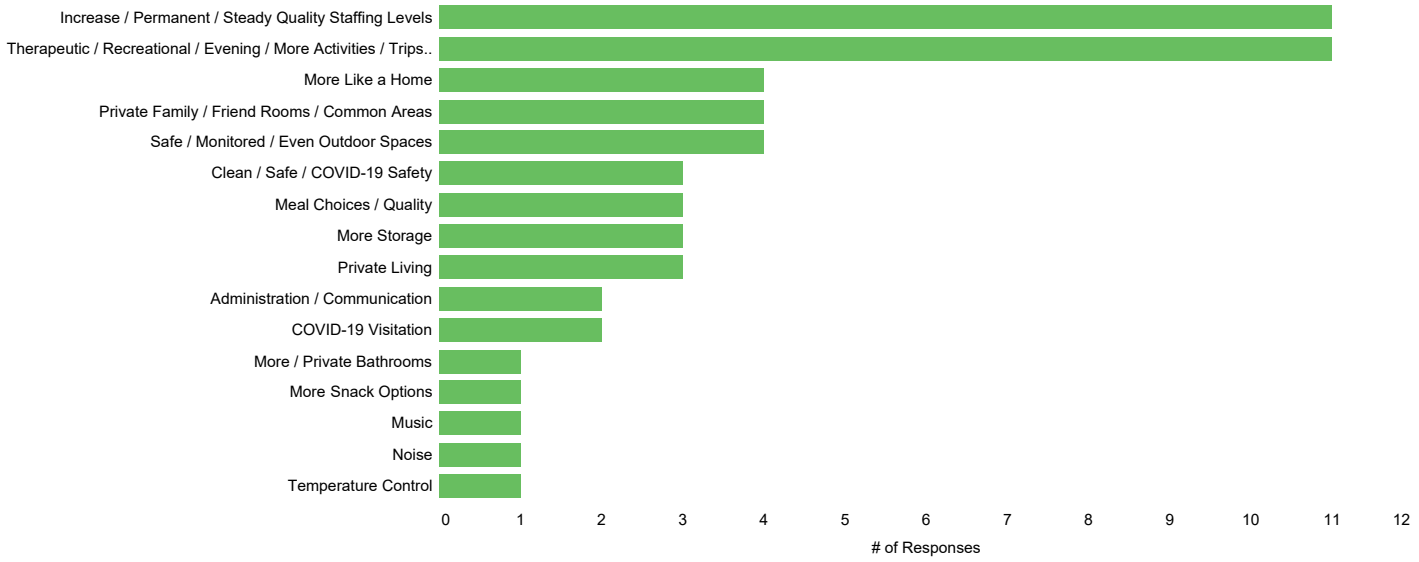
WHAT ADDITIONAL SERVICES DO YOU THINK WOULD BE HELPFUL TO PROVIDE ON-SITE AT THE SOLDIERS' HOME IN HOLYOKE?
Q8 & Q29 (FAMILY RESPONSES)



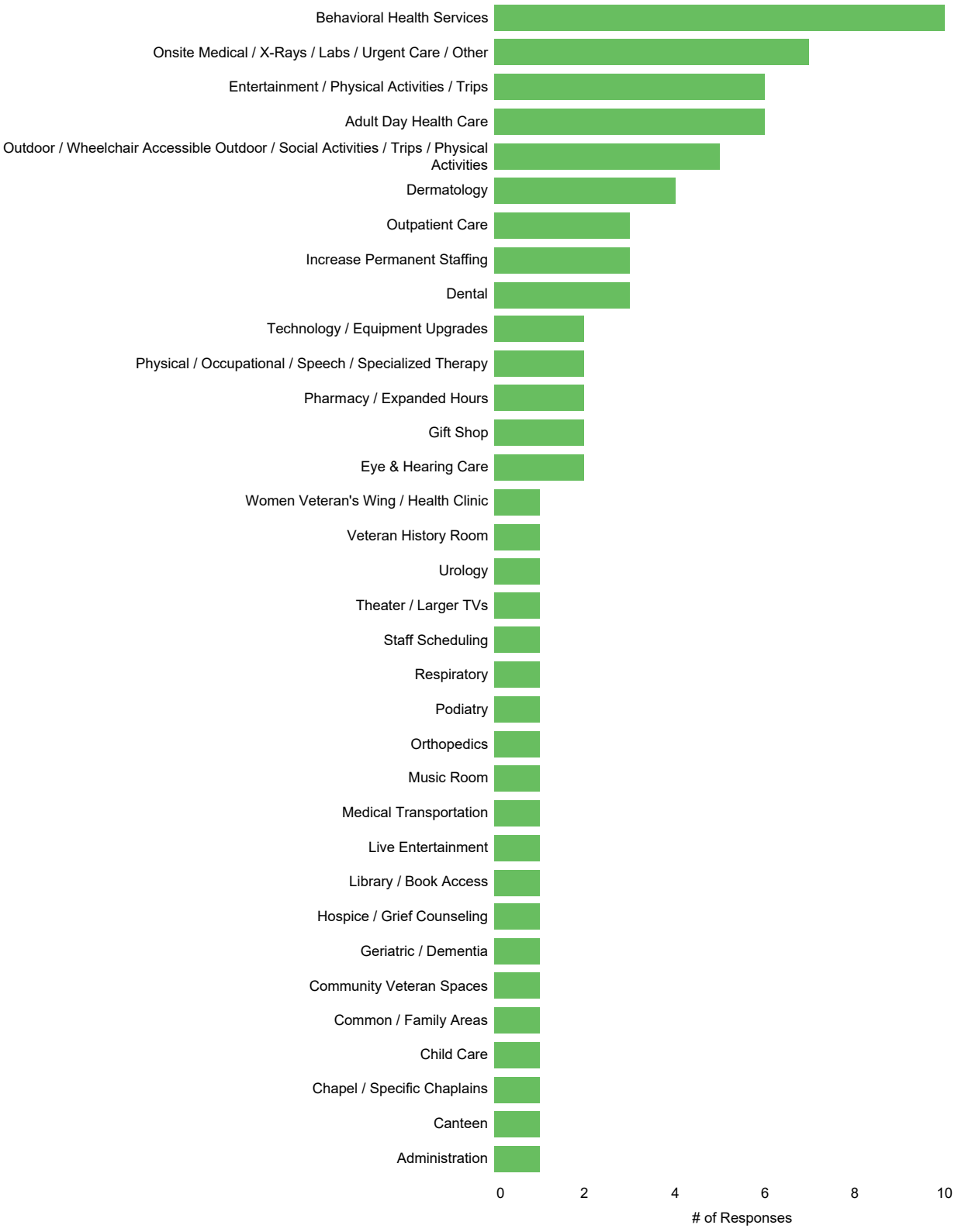
IF YOU PROVIDE RESIDENT CARE, PLEASE SELECT ALL CLINICAL SERVICES THAT YOU PROVIDE ON A DAILY OR WEEKLY BASIS?
Q9 (STAFF)



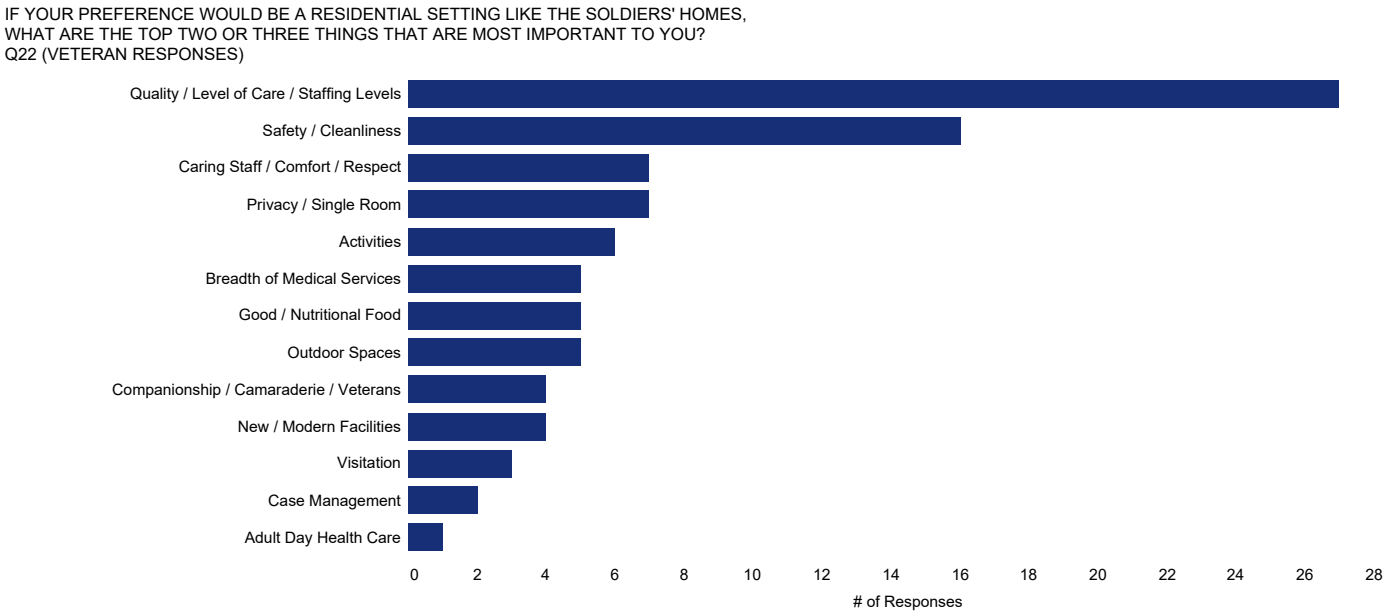
WHAT WOULD IMPROVE THE QUALITY OF LIFE FOR RESIDENTS AT THE SOLDIERS' HOME IN HOLYOKE?
Q14 (STAFF)



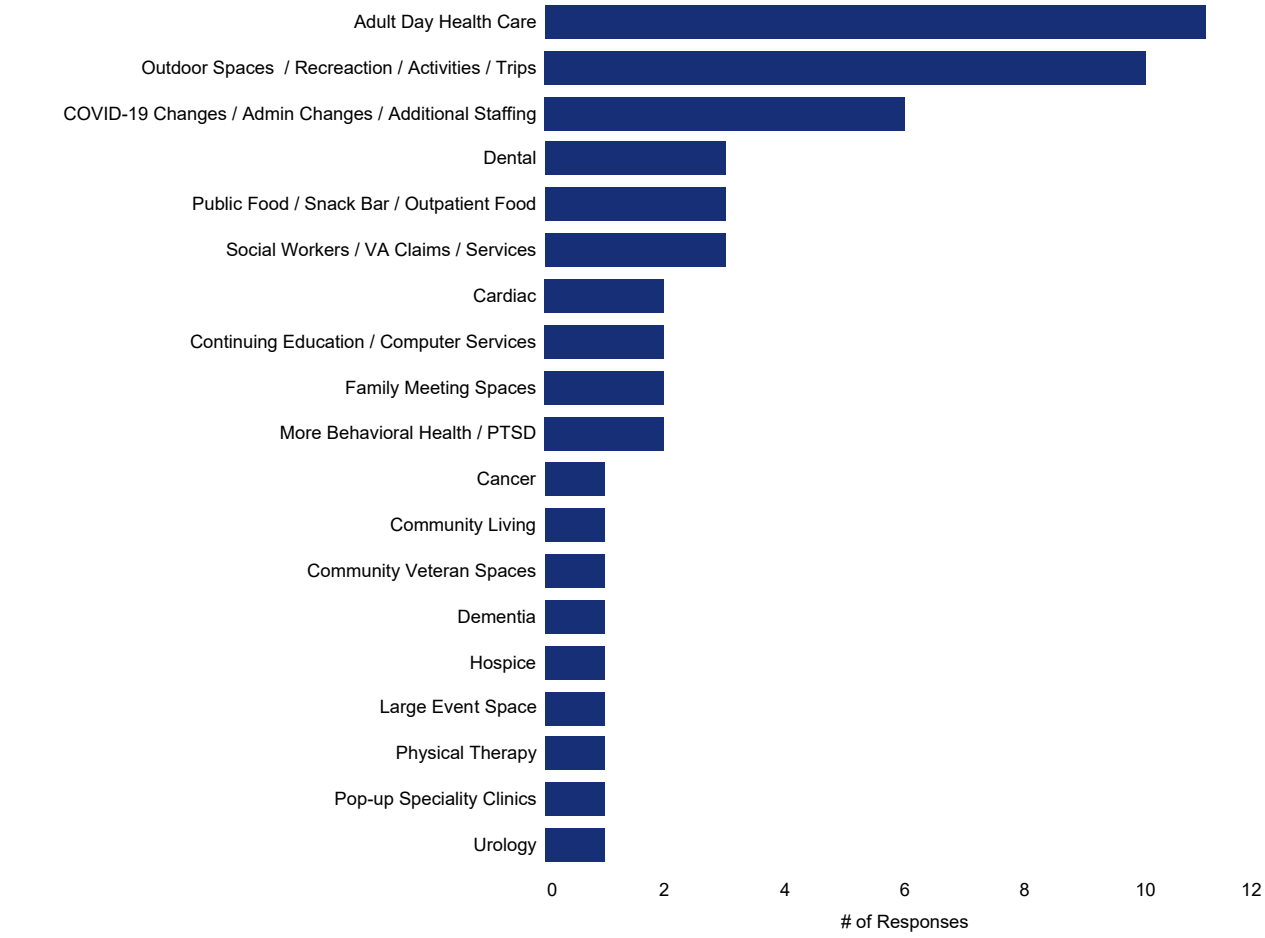
WHAT ADDITIONAL SERVICES DO YOU THINK WOULD BE HELPFUL TO PROVIDE ON-SITE AT THE SOLDIERS' HOME IN HOLYOKE? Q15 & Q29 (STAFF)



Soldiers' Home in Holyoke Needs Assessment Survey Responses

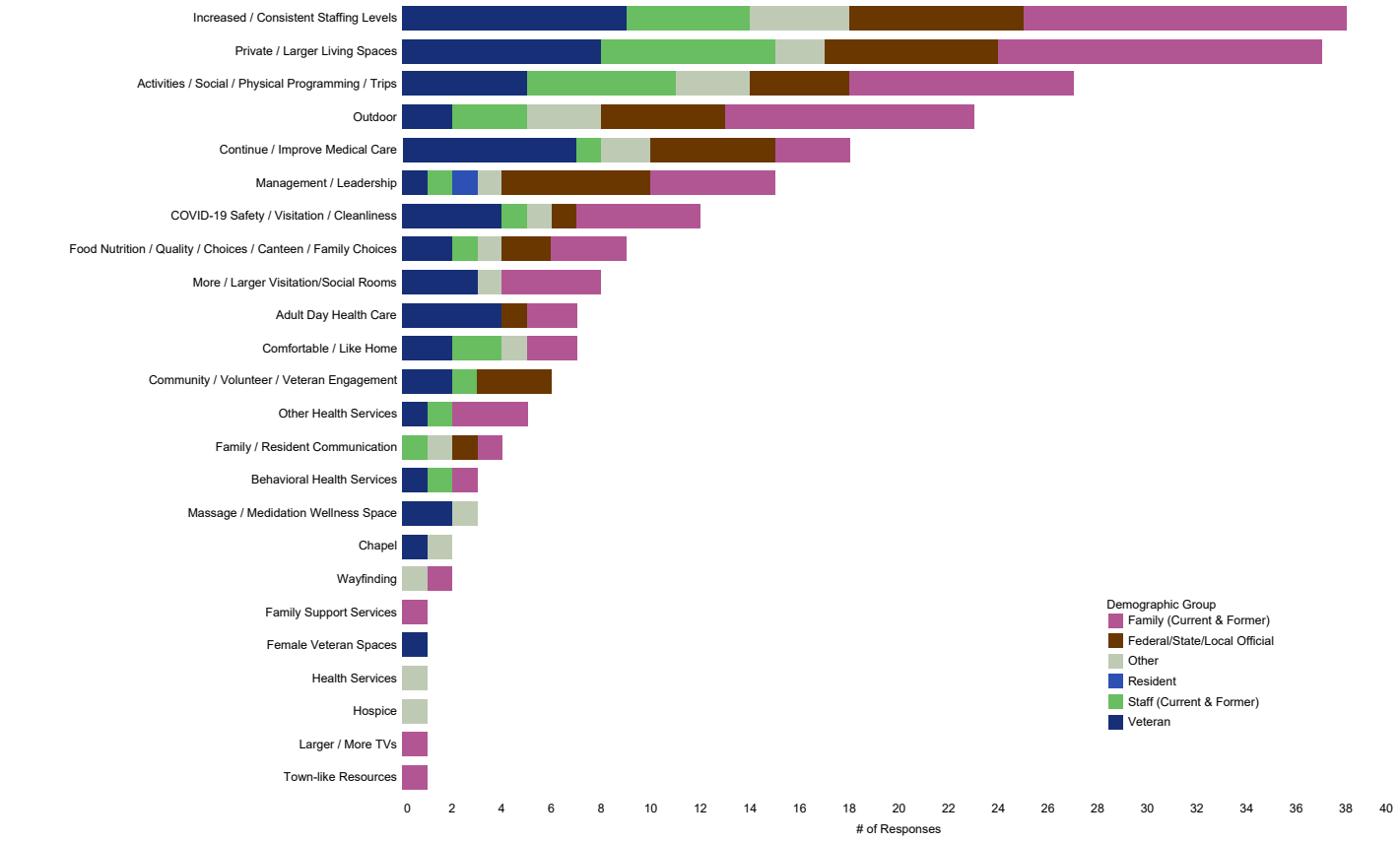


WHAT ADDITIONAL SERVICES DO YOU THINK WOULD BE HELPFUL TO PROVIDE ON- SITE AT THE SOLDIERS' HOME IN HOLYOKE?
Q23 (VETERAN RESPONSES)

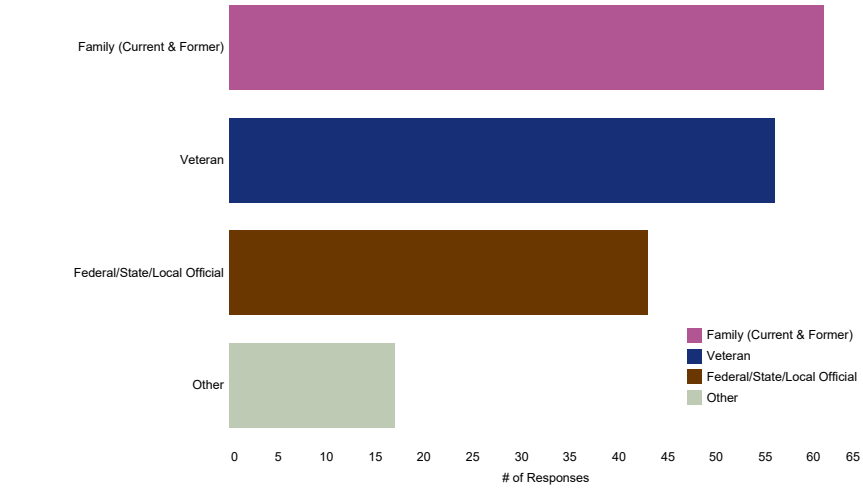


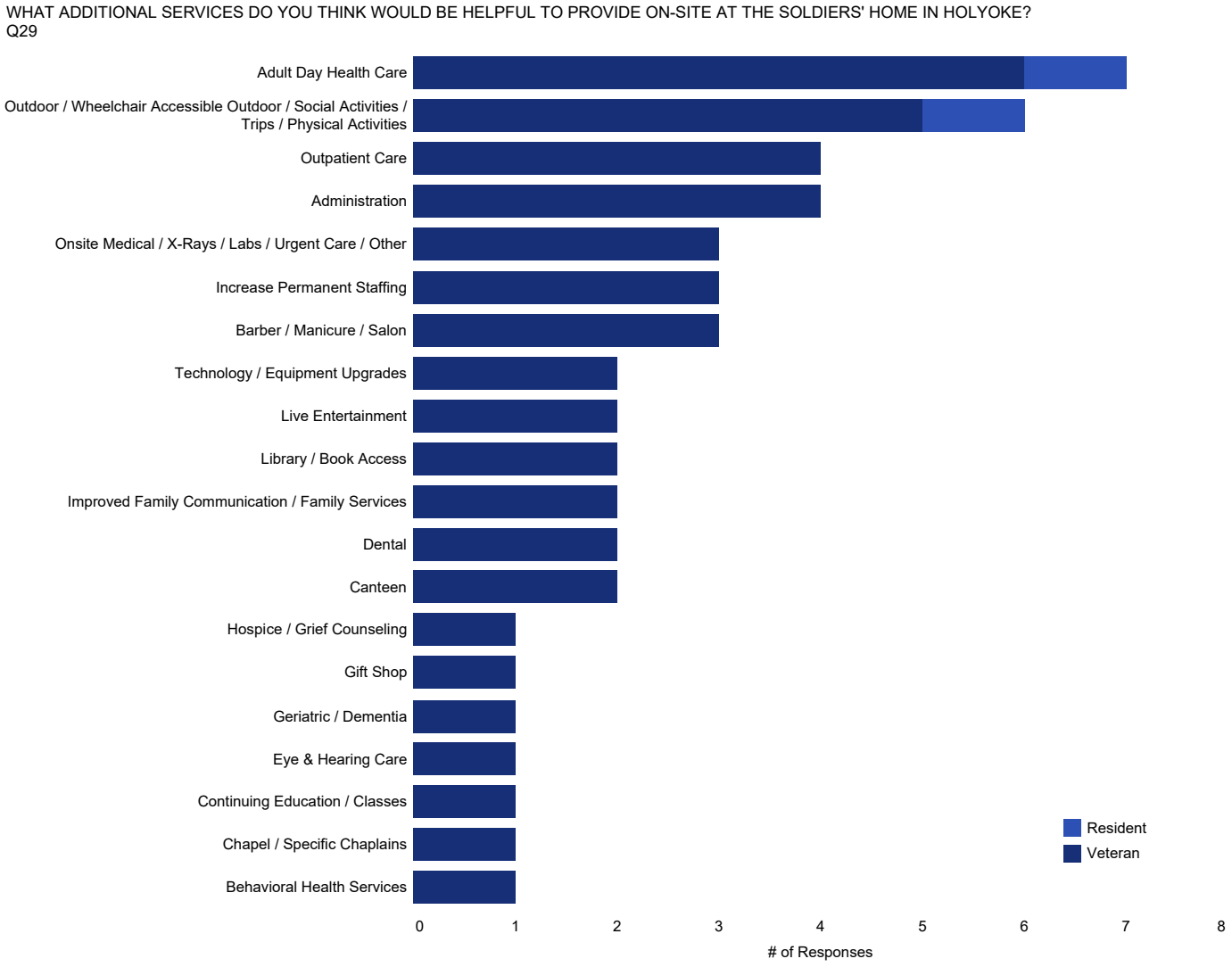
Soldiers' Home in Holyoke Needs Assessment Survey Responses

WHAT WOULD IMPROVE THE QUALITY OF LIFE FOR RESIDENTS AT THE SOLIDERS' HOME IN HOLYOKE?
Q27



DO YOU KNOW SOMEONE CURRENTLY LIVING AT THE SOLDIERS' HOME IN HOLYOKE?
Q28




WHAT ADDITIONAL SERVICES DO YOU THINK WOULD BE HELPFUL TO PROVIDE ON-SITE AT THE SOLDIERS' HOME IN HOLYOKE?
Q29
Adult Day Health Care
Outdoor / Wheelchair Accessible Outdoor / Social Activities / Trips / Physical Activities
Outpatient Care
Administration
Onsite Medical / X-Rays / Labs / Urgent Care / Other
Increase Permanent Staffing
Barber / Manicure / Salon
Technology / Equipment Upgrades
Live Entertainment
Library / Book Access
Improved Family Communication / Family Services
Dental
Canteen
Hospice / Grief Counseling
Gift Shop
Geriatric / Dementia
Eye & Hearing Care
Continuing Education / Classes
Chapel / Specific Chaplains
Behavioral Health Services
Resident
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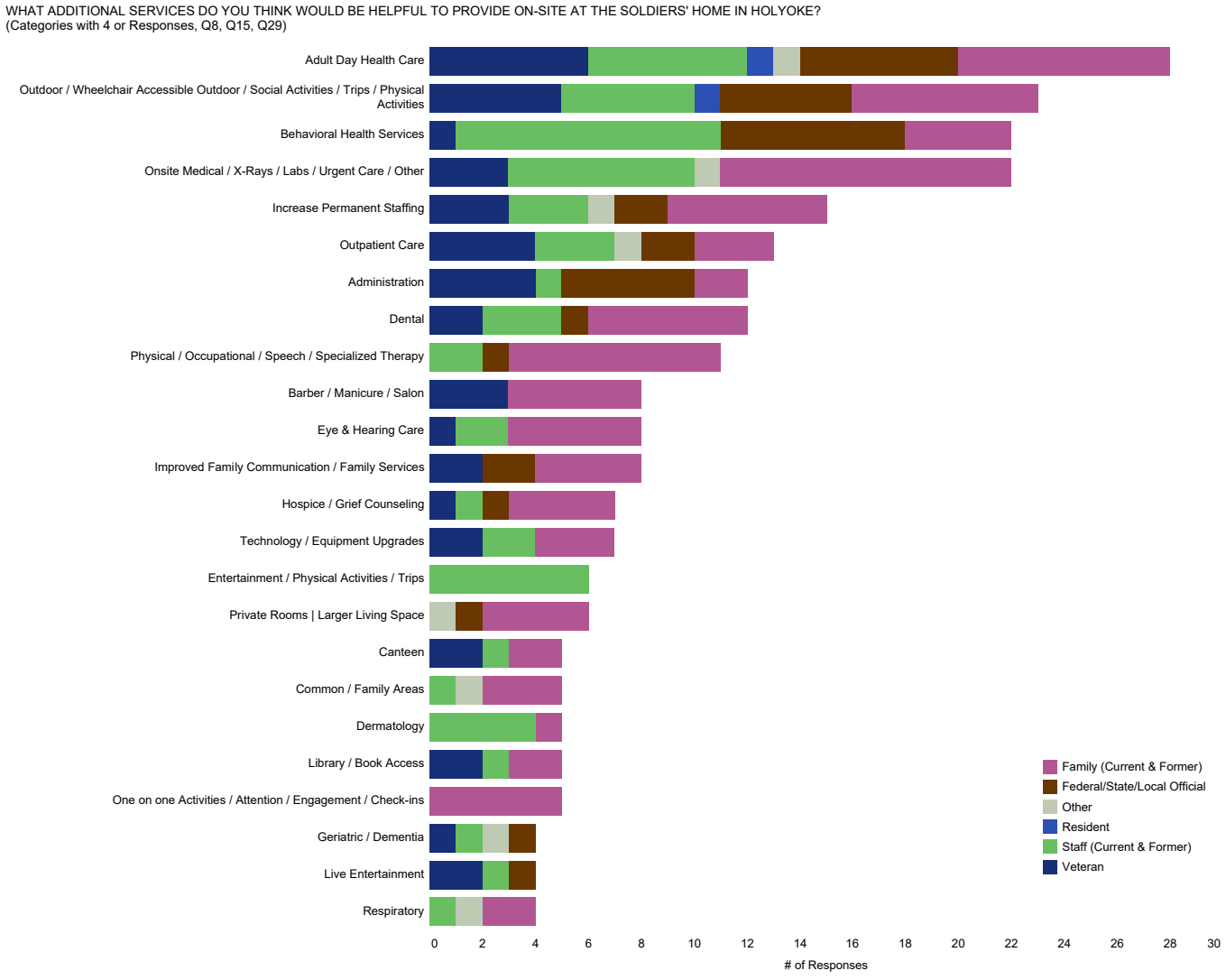
# of Responses

Soldiers' Home in Holyoke Needs Assessment Survey Responses



Program Comparison - MA 105 CMR 150 v. VA Small House Design Model

	VA SMALL HOME MODEL *(formerly 'CLC')*	LONG-TERM CARE *(105 CMR 150 / DPH Level II & III)*
REQUIREMENTS, GENERAL		
MAXIMUM # OF BEDS PER HOME/UNIT		
Level II Nursing Unit (Skilled Nursing Care Unit)	10, 12 or 14 (max)	41 beds
Level III (Supportive Nursing Care Unit)	10, 12 or 14 (max)	60 Beds
CORRIDORS	6 - 8 ft in resident home areas	min. 8'-0" wide where used by residents
DOORWAYS	48" (typical) for rooms used by residents	min. 41.5" for rooms used by residents; resident toilet room doors, min. 32"
RESIDENT BEDROOMS	230 Sf; bathrooms 85 sf	125 sf floor area; multiple occupancy 90 sf per bed
	1 resident per room, 1 resident per bathroom	No more than 2 residents per room.
		bed placement 3'-0" from lateral walls, windows, and other beds
REQUIREMENTS - SUPPORT PER HOUSE/UNIT		
HOUSE (VA) OR UNIT (LTC)		
Front Porch	*no sf specified*	n/a
VESTIBULE	150 sf	n/a
FOYER	80 sf	n/a
VISTOR TOILET	60 sf	Required, size per code (~60 sf)
ACTIVITY AREA (LTC) OR 'DEN' (VA)	180 sf	Multipurpose' Room required for Dementia Special Care Unit (DSCU). Space required for dining, group & individual activities, & family visits 8 sf per bed for activites.
SITTING ALCOVE	3 per 10 Resident House, 4 per 12, 5 per 14; 120 sf	n/a
CLEAN LINEN ALCOVE	5 per 10 Resident House, 6 per 12, 7 per 14; 120 sf	n/a
NURSE STATION	n/a	Required, no sf specified, within 150 ft to any resident bedroom
RESIDENT BATHING & TOILET ROOMS	bathing room, 160 sf + toilet, 60 sf	Required, no sf specified, no less than 1 bathing room per every 15 residents. 1 water closet required for each sex on each unit
LIVING ROOM	450 sf	DSCU requires min. 9 sf per for 'day room'
DINING ROOM	525 sf	DSCU requires min. 10 sf per bed in multi-purposes area
MEDICINE ROOM	80 sf	Required, no sf specified
CRASH CART ALCOVE	20 sf	n/a
CLEAN UTILITY	60 sf	70 sf. Min. if unit contains over 20 single occupancy resident bedrooms or has multi-bed rooms
SOILED UTILITY	80 sf	70 sf. Min. if unit contains over 20 single occupancy resident bedrooms or has multi-bed rooms
LINEN STORAGE CLOSET/LAUNDRY	60 sf	Required, no sf specified
JANITOR'S CLOSET	60 sf	Required, no sf specified
GENERAL STORAGE	120 sf	Required, no sf specified
SPECIALTY STORAGE	100 sf	n/a
EQUIPMENT/SUPPLY STORAGE ROOM	200 SF	50 sf. Min. if unit contains over 20 single occupancy resident bedrooms or has multi-bed rooms
SPECIAL CARE ROOM	n/a	Required if not all single occupancy rooms
KITCHEN/NOURISHMENT	1 per floor, 360 sf + pantry	1 per floor, no aea specified
PANTRY	80 sf	n/a
KITCHEN HOUSEKEEPING CLOSET	15 sf	n/a
LAUNDRY ROOM	140 sf	n/a
OFFICE	100 sf	Required, no sf specified
STAFF LOUNGE	160 sf	Required, no sf specified
LOCKER, STAFF PERSONAL PROPERTY	80 sf	Required, no sf specified
STAFF TOILETS	60 sf, provide (2)	Required, no # of sf specified
COMMON/SHARED REQUIREMENTS (BETWEEN UNITS/HOUSES)		
NEIGHBORHOOD (VA) or GENERAL FACILITY REQUIREMENTS (LTC)		
NBD LOBBY	200, 1 per every 3 houses	n/a

Program Comparison - MA 105 CMR 150 v. VA Small House Design Model

	VA SMALL HOME MODEL *(formerly 'CLC')*	LONG-TERM CARE *(105 CMR 150 / DPH Level II & III)*
NBD WAITING, GENERAL	220, 1 per every 3 houses	n/a
NBD WAITING, FAMILY	125, 1 per every 3 houses	n/a
NBD PUBLIC TOILET	60, 1 per every 3 houses	Yes, for facility
NBD FAMILY TOILET	80, 1 per every 3 houses	n/a
NBD CONFERENCE ROOM	300 sf, 1 per every 3 house	n/a
NBD RECEIVING/BREAKDOWN	280, 1 per every 3 houses	n/a
NBD UTILITY ROOM, SOILED	140 1 per every 3 houses	n/a
NBD GENERAL STORAGE	200 sf 1 per every 3 houses	n/a
NBD CLEAN LINEN STORAGE	120 sf 1 per every 3 houses	n/a
NBD SOILED LINEN STORAGE	120 sf 1 per every 3 houses	n/a
NBD HOUSEKEEPING CLOSET	60 sf 1 per every 3 houses	n/a
NBD GENERAL ACTIVITY/MULTIPURPOSE ROOM	1100, 1 per every 3 houses	min. 8 sf per bed, 1 per facility
NBD KITCHENETTE	140 sf, 1 per every 3 houses	
CENTRAL FOOD STORAGE	*n/a, 1 per House*	min. 150 sf for non-perishable food
GENERAL STORAGE	140 sf	10 sf per bed
CENTRAL DINING (LTC) / KITCHENETTE (VA)	140, 1 per every 3 houses	10 sf per bed, separate area for staff and employees
CENTRAL KITCHEN	*n/a 1 per House*	Required, no sf specified
EXAMINIATION AND TREATMENT ROOM	n/a	min. floor area 125 sf, min. 10 ft dimension
PARKING	per VA requirements	No less than 1 space per 4 beds and local zoning/building ordinances
CRASH CART ALCOVE	20 sf, 1 per every 3 houses	
SENSORY THERAPY ROOM, SNOEZELEN	*optional if authorized, 160 sf*	n/a
SENSORY THERAPY ROOM, NAMASTE	*optional if authorized, 160 sf*	n/a
OFFICE/ADMIN SPACE	*n/a, in House and Community Center*	Administrative offices, Director or Nurses' offices,
CENTRAL LAUNDRY & LINEN STORAGE	*n/a, 1 per House*	70 sf. Min. if unit contains over 20 single occupancy resident bedrooms or has multi-bed rooms
CENTRAL HK AND MAINTENANCE	*n/a, 1 per Community Center*	
STAFF TOILET ROOMS	*n/a 1 per House and Community Center*	YES, as required
OUTDOOR RECREATION	n/a	min 25 sf per bed, dedicated space required for DSCU
OPTIONAL COMMON PROGRAMS (includes Small Home *Community Center)		
COMMUNITY CENTER (VA SMALL HOME ONLY IF AUTHORIZED) OR GENERAL FACILITY OPTIONS (LTC)		
ENTRANCE		
LOBBY	*400 sf*	
CONCIERGE STATION	*180 sf*	
SECURITY STATION	*130 sf*	
GENERAL WAITING	*220 sf*	
FAMILY WAITING	*125 sf*	
PHYSICAL THERAPY ROOM / EXERCISE ROOM	*500 sf*	optional, min 200 sf floor area, min. 10'-0" dimension. (Additional program requirements if serving outpatients.)
PATIENT EDUCATION	*56 sf*	
PUBLIC TOILET	*60 sf*	
FAMILY TOILET	*80 sf*	
WHEELCHAIR ALCOVE	*30 sf*	
CONSULT ROOM	*120 sf*	optional office, min. 100 sf
EXAM ROOM	*125 sf*	
GREAT ROOM	*1400 sf*	
THEATER	*450 sf*	
LIBRARY	*300 sf*	
HAIR CARE/BARBER SHOP/SALON	*300 sf*	optional, min 120 sf.
STORAGE, HAIR CARE SHOP / SALON	*60 sf*	
CHAPEL, MEDITATION	*300 sf*	
RETAIL STORE	*400 sf*	optional snack shop, option gift shop
POST OFFICE	*400 sf*	
CRASH CART ALCOVE	*20 sf*	
MAINTENANCE OFFICE		
MAINTENANCE STORAGE	*300 sf*	

Program Comparison - MA 105 CMR 150 v. VA Small House Design Model

	VA SMALL HOME MODEL *(formerly 'CLC')*	LONG-TERM CARE *(105 CMR 150 / DPH Level II & III)*
CLOSET, HK AIDES	*60 sf*	
TRACH COLLECTION ROOM	*140 sf*	
DIRECTOR OFFICE	*100 sf*	
NURSE LEADER OFFICE	*100 sf*	
MEDICAL DIRECTOR OFFICE	*100 sf*	
SOCIAL WORKER OFFICE	*100 sf*	
DIETARY OFFICE		optional
COPY ROOM	*80 sf*	
TEAM WORKROOM	*360 sf*	
STAFF LOUNGE	*120 sf*	
STAFF TOILET, FEMALE	*60 sf*	
STAFF TOILET, MALE	*60 sf*	
OPTIONAL PROGRAMS, GENERAL		
PATIO	*if authorized*	
GARDEN	*if authorized*	
GARAGE/RECEIVING	*if authorized, 480 sf*	
RECEIVING/BREAKDOWN	*if authorized, 100 sf*	
GAS MANIFOLD ROOM	*if authorized, 40 sf*	

not required	
105 CMR 150 Dementia Special Care Unit Only	

** A Community Center shall be provided if it is authorized and if the projected number*
**VA Small Home, net-to-department grossing factor is 1.60*
**VA Small Home requires 100% ADA accessbility in all Resident and public space throughot the Small House Model*