

## NEED

### Corresponds to Section V.1 Review Criterion 1: NEED

1. Describe the pressing needs in your community that your proposed innovative strategies to optimize the use of virtual care will address, including:
  - a. Access to patient-centered care (including disparities in access), utilization of your health center's services, and patient engagement;

**HARBOR CARE SERVICE AREA.** Harbor Care Health and Wellness Center's (Harbor Care, HCHWC) Service Area includes the City of Nashua, New Hampshire and its ten surrounding towns (Brookline, Amherst, Hollis, Merrimack, Milford, Mont Vernon, Hudson, Litchfield, Mason [although not Greenville, which shares Mason's zip code], and Wilton). This area is known as Greater Nashua, New Hampshire.

Located in the southern portion of Hillsborough County, Greater Nashua spans a radius of approximately 15-miles surrounding the region's urban core of downtown Nashua. The service area has a population of approximately 200,000 Granite Staters (different methods of calculation yield a range of 192,000-205,000), which accounts for 20% of the state's population and 50% of Hillsborough County's. Fifty miles northwest of Boston, Greater Nashua is a border community of Lowell, Massachusetts.

The City of Nashua (population 85,000+) is the region's primary health care-delivery area, containing both of Greater Nashua's hospitals. The City's urban core contains the majority of health and social services for low-income populations.

**TARGET POPULATIONS' BARRIERS TO CARE.** As a consequence of their living situations, resources, and social determinants of care (described further below), low-income populations in Nashua's urban core and the homeless population face significant barriers and disparities in their care.

**Under-provision of Care.** In its Community Health Assessment<sup>i</sup> and Improvement Plan,<sup>ii</sup> the City of Nashua identifies several barriers low-income populations face in pursuing long-term health. Primary among them is access to care. Estimates from the UDS Mapper indicate a service gap of at least 10,000 patients with low-income who are not served by health centers within the City of Nashua, as well as approximately 10,000 more within Harbor Care's service area. Table 2 indicates penetration rates for the relevant ZTCAs.

Table 1

PENETRATION RATES <sup>iii</sup>	03060 (w/ tracts 107 and 108)	03064 (w/ tract 105)
Low-income	49.1%	35.8%
Uninsured	58.67%	33.8%
Medicare/Private	5.83%	2.6%
Medicaid	39.4%	26.3%
All Population	15.76%	7.3%

Individuals in our core service area also struggle with high uninsurance rates. Within tracts 105, 107, and 108 (Nashua's urban core, described below), 20% of individuals are uninsured compared to 10% of individuals uninsured in the rest of Nashua.<sup>iv</sup> Not surprisingly individuals who are uninsured visit the doctor less often, and there are gaps across the board for health prevention indicators, including annual checkups (74% versus 78%), dental care (51% versus

69%), cholesterol checks (72% versus 82%), and many more. In addition, the homeless population remains undertreated.

These insufficient penetration rates exist despite Nashua's two FQHCs, both of which are PCMHs. Located approximately one mile away from Harbor Care's FQHC, Lamprey Health Care is the only other FQHC within the Greater Nashua area. It targets the general low-income population and does not specifically facilitate access for the homeless population; instead, Lamprey often targets individuals with insurance and refers individuals who are homeless to Harbor Care.

**Transportation.** Among our target population, the vast majority (above 80%) do not have personal vehicles. While the City of Nashua is served by public transportation, public transportation does not extend to any of the surrounding towns – and there is currently no reliable way for patients from these towns who do not have access to a vehicle to receive services. Medicaid/MCOs do pay for patients to get to and from medical appointments, in a limited way, and Harbor Care does provide transportation in the form of bus passes and/or taxi rides as needed. Yet, these services are expensive and often underutilized by patients. Outside of Nashua, there are even fewer options, with no public transit and greater costs for transportation. Within these more rural areas, care is even more difficult to access for homeless and low-income populations.

**Care Silos.** A related issue is care silos. While Harbor Care is a Patient-Centered Medical Home, with a wide range of the most-needed services, the agency does not offer many types of specialty care. Our most common referrals are Gastroenterology, Orthopedics, Physical Therapy, Obstetrics/Gynecology, Sleep Disorders, Dermatology, Ophthalmology, Neurology (Non-surgical/Non-psychiatric), Surgery (General), and Urology. Among our patient population, given the expense, time, and complexity of accessing specialty providers, referral completion rates are low, although they did rise during the pandemic, likely because of telehealth access. The completion rate in 2019 was 26%, while the rate in 2020 was 39%.

In addition, while Harbor Care offers many in-demand non-clinical services that address social determinants of health, such as housing, veteran, or employment supports, services are not co-located within the health center – particularly during the pandemic. Warm-hand offs and referrals face similar challenges and limited follow-through.

**Language Barriers.** While New Hampshire and Hillsborough County's rates of non-English speakers are low (1.8% and 2.4% respectively), within the City of Nashua and among Harbor Care's patients, the rates are significantly higher (4.5% and 5.7% respectively). This number, however, represents a large and statistically significant decline in non-English speakers during the pandemic (from 7.6%), indicating challenges among non-English speakers accessing care through telehealth. In addition, Harbor Care notes a lack of patient engagement among non-proficient English speakers, who have 6.1 annual visits on average versus 10.1 overall.

In Hillsborough County, the language most often spoken other than English was Spanish, and three-quarters of all Spanish speakers in the state live in Hillsborough County. Ethnicity gaps in poverty indicate that language gaps do present challenges in Nashua, as Hispanic populations are 2.5 times as likely to be in poverty. Additional language services are needed both in our health center and on the streets via outreach. Continuity of care and demographic concordance of providers are especially important in non-English speaking population.<sup>v</sup>

**Technology Barriers:** Telehealth presents a new barrier to care—digital equity.<sup>vi</sup> Individuals living in poverty are more likely to lack a phone, internet access, and video technology. Prior to the pandemic (CY2019), Harbor Care served 3,194 unique patients; however our patient population fell to 2,573 during the pandemic (CY2020). While fear of the pandemic likely accounted for a substantial portion, as explained below, many patients reported difficulties accessing necessary technology (Wi-Fi, video technology, or cell phones).

**b. Most significant clinical quality, health outcome, and health disparities challenges for your patient population; and**

**Behavioral & Mental Health Care.** Another focus of Nashua’s recent Health Assessment and Improvement Plan is behavioral health, which is inclusive of both substance use disorder and mental illness. Greater Nashua struggles with high rates of:

- **Substance misuse, particularly opioids.** Once called “ground zero” for the United States’ opioid epidemic, New Hampshire has ranked among the top five states for cumulative drug deaths per capita between 2015 and 2020. More than 3,000 people have died since 2015, and overdose deaths remain among the leading causes of death in the state.<sup>vii</sup> As the densest and most populous region, Hillsborough County has the most and proportionally highest rate of opioid overdose. In addition to opioid use, New Hampshire has above average rates of alcohol use, and more recently, public health officials have warned of growing methamphetamine issues. *In recent years, up to 70% of patients of Harbor Care had some drug or alcohol use, with 35% of patients officially diagnosed with a substance use disorder (SUD).* Typically, 25% of patients in traditional primary care offices screen positively for drug misuse (using the same Drug Abuse Screening Test, DAST).
- **Untreated Mental Illness & Suicide:** Of the approximately 1.3 million New Hampshire residents, 43,000 adults and 14,000 children live with serious mental illness and, due to a lack of services, this 5% of residents remain untreated for longer than residents of other states. Suicide rates are 31% greater in New Hampshire and Hillsborough County than in the U.S. overall (17.8 versus 13.6 per 100,000). Unfortunately, low incomes and homelessness are known to correlate with mental health disorders.<sup>viii</sup> Among our clients, mental health is the most in-demand service, with 75% of all visits and 56% of patients seeking mental health care. Other health centers across the state report only 16% of patients seeking such care. Among all Harbor Care patients (according to our UDS data), 46% were diagnosed with depression and other mood disorders and 41% with anxiety disorders including PTSD.

Behavioral health care is the most significant cause of morbidity and mortality for our target population. Generally, low-incomes are associated with at least 30% greater odds of having a behavioral illness compared to moderate-incomes. These issues are exacerbated by a lack of access to timely treatment for those seeking behavioral health services and limited mental health promotion and awareness. Perhaps the best indicator is the increase in visits per patient during the pandemic. Per patient rates of behavioral care increased by 40% — a marker of the high demand limited by access issues, like the cost and time of transportation and childcare responsibilities.

**Preventative Care.** Table 2, below, demonstrates pre-and-during pandemic rates of typical screenings or health indicators often identified or addressed through routine preventative care.

While it seems pediatric services and referral completion improved, most screenings performed during preventative care visits declined (SBIRT, cervical, tobacco, colorectal, and depression) as did chronic disease management indicators.

*Table 2*

Indicator	Rate Pre-pandemic (4/1/2019 – 3/30/2020)	During Pandemic (4/1/2020 – 3/30/2021)	
Hypertension Controlled	62%	58%	↓*
Uncontrolled Diabetes (A1C > 9)	47%	50%	↑
Referral Completion	26%	39%	↑*
Childhood Immunization	23%	50%	↑*
Child Weight Assessment	66%	70%	↑*
Adult BMI	37%	37%	--
Screening: Tobacco Use	54%	41%	↓*
Screening: SBIRT	65%	27%	↓*
IVD	81%	80%	↓
Screening: HCV	73%	78%	↑*
Screening: Depression	82%	72%	↓*
Screening: Colorectal	40%	38%	↓
Screening: Cervical	32%	30%	↓*

*Asterisks indicates significant difference after accounting for population sizes (based on chi-squared test,  $p < 0.05$ ).*

**Chronic Illness Management.** Due to their living conditions and a 6-fold greater incidence of poor health conditions, individuals experiencing homelessness are twice as likely to be hospitalized, two to four times as likely to require critical care, and two to three times more likely to die than the general population during hospitalization. Among Harbor Care’s current patients, the following physical health diagnoses are the most common: hypertension, diabetes, obesity, asthma, and cancer. This is similar to the overall population’s most common diagnoses.

In addition, they have higher than average population rates of hepatitis, communicable diseases, tobacco use, trauma, and acute seasonal illnesses such as the flu or upper respiratory infections, in comparison to the housed. During the pandemic, markers for uncontrolled hypertension and diabetes both increased among our patients (from 38% to 42% and 47% to 50% respectively). This decline in health is especially concerning as we suspect those who left care during that time to be more likely to have greater issues with control of a chronic condition.

**c. Social determinants of health affecting your patients (reference related 2019 and 2020 UDS data, as appropriate). (KF: 5 pages)**

**Nashua’s Urban Core.** Nashua’s urban core is home to individuals facing the greatest social and economic threats to their health—including those who are experiencing or at risk of homelessness. Our health center is on the border of Nashua’s three most at-risk census tracts — 105, 107, and 108. Based on the CDC’s “Social Vulnerability Index,” these tracts are among the top ten most at risk communities in NH, and nationally they fall in the 94<sup>th</sup>, 90<sup>th</sup>, and 80<sup>th</sup> percentiles respectively, indicating extremely high rates of social vulnerability.

These high rates are a product of several risk factors. Notable is the area’s high level of poverty, of approximately 25% (more than double Hillsborough County overall), low level of high school education (which mirror poverty rates), and low rates of English proficiency (at one in ten

households reporting difficulties with English). **These factors result in the area’s residents’ average incomes equal to just 30% of Nashua’s overall AMI.**<sup>ix</sup>

Additional risk factors worth noting in this region relate to age. In tract 107, 1 of every 4 individuals is above 65, and a full **40% of individuals have a disability**. Meanwhile, in tracts 105 and 108, nearly 1 in 6 households are led by a single parent. Individuals with disability and single parent households struggle with connecting to healthcare — especially since vehicle ownership in these areas is among the lowest in the state.

In terms of race and ethnicity, this region has some of the greatest numbers of racial and ethnic minorities in the state, with approximately 1 in 4 residents considered a racial or ethnic minority. Nashua’s poverty rates by race and ethnicity are below in Table 3, with notable differences existing among populations of color.

*Table 3*

	<b>Nashua Population</b>	<b>Population in Poverty</b>	<b>Poverty Rate</b>
<b>White</b>	63,727	4,668	7%
<b>Hispanic</b>	11,125	2,205	20%
<b>Black</b>	3,576	571	16%
<b>Asian</b>	7,369	529	7%
<b>Multiple</b>	2,778	393	14%
<b>Other</b>	1,433	135	9%
<b>Native</b>	114	31	27%
<b>TOTAL</b>	<b>90133</b>	<b>8543</b>	<b>9%</b>

**Homelessness.** As a 330h, Federally Qualified Health Center for the Homeless, the Harbor Care Health and Wellness Center serves almost solely patients experiencing low-income, with 91% of patients falling below 200% of the federal poverty line in 2020. Seventy-three percent of all patients in 2020 were experiencing homelessness. These patients come from not only Nashua’s urban core, but from throughout Greater Nashua, which is rural and lacks other support services for those experiencing homelessness. Many in this population are referred to as “hidden homeless,” as they are unlikely to appear in official figures.

Even before the coronavirus pandemic, homelessness was greatly increasing in New Hampshire. After more than a decade of hard-won gains, estimates from NH’s annual “Point-In-Time Count” showed unsheltered homelessness had returned to levels not seen since 2009 (a 20% increase from 2018). **Particularly notable are increases in unsheltered homelessness, chronic homelessness, and family homelessness.**<sup>x</sup> The cause has largely been housing unaffordability. New Hampshire is consistently ranked among the lowest rental vacancy rates in the country (3.0% as of June 2021, and 4<sup>th</sup> lowest in the country<sup>xi</sup>), and as a result, rents have spiked 74% from 2000 to 2019. Nashua’s vacancy rates are less than 1%. Some renters have reported rent increases of nearly 20% in a single year.

The homeless population faces unique barriers to care. The population faces high rates of disability (22%), low levels of health literacy, and a unique set of “homeless culture” beliefs and values. This last barrier, in particular, greatly affects how health care is accessed and used among the target population, once again resulting in poor health in traditional health care settings. Additional prominent barriers, identified by the National Health Care for the Homeless Council’s

“Homelessness & Health Care: Fundamental Issues”<sup>6</sup> accurately describe our target population’s challenges, including:

- **Uncoordinated Healthcare:** Without transportation and health insurance, and often presenting with complex psychosocial problems, discontinuity of care is the norm for these high-risk populations, especially in a fragmented medical care system. Transience makes comprehensive medical care, referrals and follow-up difficult.
- **More Pressing Needs:** Homeless patients have even more difficulty than others focusing on medical providers’ instructions or remembering them, due to preoccupation with meeting basic needs. Immediate shelter and food needs take priority over chronic and acute medical conditions.
- **Nutrition Challenges:** Meals are irregular, with limited or no dietary choice. Unfortunately, donated food is often unhealthy — high in fat, starch, salt and sugar. Such food increases the risk for complications associated with diabetes and cardiovascular disease, health problems commonly seen in individuals experiencing homelessness.
- **High Stress:** Homelessness is highly stressful on mental and physical health. Individuals may, per force, become distrustful of and desensitized to symptoms. Moreover, those without stable housing face a lack privacy, risk abuse and theft, and have limited means of resting/recuperating.

According to Analysis of the Health Status of the Homeless Clients Utilizing a Free Clinic, “the unmet health care needs for the homeless population were six to ten times greater than the general population.” The challenges are most pronounced for those living in chronic homelessness. Before the pandemic, with greater than average needs, households experiencing chronic disabilities were in constant crisis—twice as likely to lose their housing, remain homeless, and fall into homelessness again.

- 2. Describe what has informed your proposal and serves as the basis of your plans to optimize the use of virtual care, including:**
  - a. Activities prior to the COVID-19 public health emergency;**

**Breadth of Services & Opportunity.** Drawing on four decades of experience, Harbor Care helps at-risk families solve some of life’s most challenging issues, particularly those that lead to homelessness. The agency’s mission is to ensure that all people we serve receive integrated, personalized, and end-to-end care, service, and supports that enable their path to a successful life.

Given the many barriers to clients escaping homelessness, numerous service lines have been created or integrated to meet the most pressing needs. Within the last year, Harbor Care has officially merged with long-term partners to increase efficiencies and promote a culture of integrated care. Services include:

<b>Service Line</b>	<b>Site Description</b>	<b>Population Served</b>
<b>Primary, Behavioral, and Dental Health Care</b>	The Harbor Care Health and Wellness Center (HCHWC), NH’s only stand-alone FQHC for the homeless (330h)	Approximately 3,000 patients experiencing low-income and homelessness
<b>Housing &amp; Case Management</b>	30 properties, permanent and transitional housing, and 330 permanent housing vouchers	1,000 individuals and families formerly experiencing homelessness and chronic homelessness
<b>Substance Use Treatment</b>	66-bed residential treatment facility and outpatient treatment through the HCHWC	700 typically low-income individuals annually, including un-

		and underinsured, opioid users, and pregnant and parenting women
<b>Veterans Housing &amp; Services</b>	3 transitional housing properties and two permanent housing properties; a Homeless Veterans Reintegration Program; Support Services for Veteran Families program	500 veterans experiencing homelessness and formerly experiencing homeless and their families annually
<b>Severe Mental Illness Housing &amp; Services</b>	3 group homes, behavioral health care and permanent housing vouchers	300 individuals experiencing low-income annually
<b>HIV/AIDS Housing &amp; Services</b>	Medical Case Management, counselling, prevention services, HOPWA housing, and other wrap-around supports	250 individuals experiencing low-income annually
<b>Home Care</b>	At-home nursing care and home health aide services	200 individuals who are under-insured & low-income annually

When fully integrated, these service lines have helped accomplish a great deal for our clients. While such deeply integrated practices are still rare, and thus difficult to study, integrated care significantly reduces ER visits (10%), detoxifications (10%), hospitalizations for mental health (10%), and homelessness (50%).<sup>xii</sup> Research has also shown improved treatment of mental health conditions—rates of depression dropped as much as half in one study<sup>xiii</sup>—as well as increased treatment adherence, such as with diabetes (5%),<sup>xiv</sup> and improved health outcomes, such as a 50% reduction in the risk of heart disease.<sup>xv</sup> Despite increased services, overall treatment costs dropped 3.3%.<sup>xvi</sup>

Harbor Care has realized some of the potential of integrated care, as described within the RESOURCES/CAPACITY section. Yet, given the challenges that our target population faces, Harbor Care’s service delivery must be more expeditious, and technical barriers remain. Physical space limitations, capacity issues, and land use regulations require services to be delivered across multiple sites throughout the community. Maximal, immediate care and supports that synthesize service delivery has long been a goal of Harbor Care, through a “no wrong door” model of care. After an abrupt pivot to telehealth during much of the pandemic, Harbor Care believes virtual care will provide a financially sustainable and clinically impactful method of achieving this goal.

**b. How you leveraged telehealth to support access to comprehensive, patient centered, high quality care during the COVID-19 public health emergency and lessons learned; and**

Harbor Care’s shift to telehealth was extremely rapid and led to no service closures. Like many health centers, the agency was not previously able to implement any virtual care, per se, due to reimbursement barriers. The implementation, which is further described in the RESPONSE section, came with challenges and related opportunities.

At face value, the COVID-19 pandemic dealt a significant blow to patient care. Since 2017 we had consistently grown our patient population (approximately 5% annually), but in CY2020, we served 620 fewer patients than the previous year. This equated to 20% of our total patient population and a reduction of 800 patients from our patient served target for the year. In particular, we lost patients without health insurance (227 from 516, a 57% reduction) as well as elderly and non-elderly patients on Medicare (334 from 533, a 38% reduction). While declines across racial lines were not statistically significant, non-English speakers did decline significantly (128 from 241, a 47% reduction). Many of these patients likely received no health care services during the pandemic.

In stark contrast to the significant drop in patients, overall visits did **not** decrease, but rather remained level (+0.02%, or 500 visits). Our rapid expansion of telehealth increased service access on a patient level to an incredible degree. Based on our own analysis, 58% of visits in 2020 were telephonic, with 76% of behavioral health (BH) visits delivered over the phone. Overall, visits per patient increased 25% (from 8.0 to 10.1), with a **40% increase among mental health patients** and 16% among medical appointments. Visits per provider increased 11%, from 381 to 422. Patients were also more likely to access multiple services, with the ratio of deduplicated to duplicated patients across domains (medical, mental, dental, SUD, and enabling) increasing from 77% to 80%, indicating increased utilization of multiple services among patients, despite the temporary closure of our dental practice. As described above, successful referral completion also increased by 50% (from 25% to 39%). In a year-over-year comparison, no show rates dropped by as much as 40% (from 25% to 15% in January), with some providers reporting that their days felt significantly more productive.

Considering the population we serve — homeless, transient individuals with extremely high no-show and low treatment adherence rates — these statistics prompted Harbor Care to perform a deep-dive qualitative investigation of its virtual care services, including patient and provider surveys and focus groups. Harbor Care contracted Coleman Associates for this analysis. Respondents shed light on both the challenges and benefits of Harbor Care’s telehealth program. Many patients and providers reported challenges accessing and using video technology. In many cases, a patient may not have access to reliable video technology with connected Wi-Fi, and resort to the phone, which providers do report as a clinical barrier, since they are unable to perform even cursory visual inspections. A lack of privacy was also reported as a challenge for many patients. Yet, most patients celebrated the increased ease of accessing care, particularly given transportation and childcare barriers.

### **c. Evidence-based models, frameworks and/or other applied research.**

Within many settings, including clinical ones, research on homeless populations is difficult. Proper RCTs are rare and struggle with high rates of attrition; moreover, many co-occurring issues, such as housing instability or disabilities, challenge positive outcomes and statistical significance. It can also be difficult to assess the potential of existing interventions outside of their original context. Thus, fully encompassing models that address both social and health factors are evidenced incompletely, not yet fully structured, and often not comparable.<sup>xvii</sup>

With these limitations in mind, several research studies, case studies (particularly a series released by the National Healthcare for Homeless Coalition<sup>xviii</sup>), and reviews provide good evidence for 1) the importance of accessibility in integrated care programs to address social determinants of health, 2) the importance and efficacy of offering telehealth to the homeless population, and 3) the importance of non-clinical technical supports in telehealth practices. This literature combined with our “lessons learned” from operating virtual care during the pandemic has guided the development of our proposal as well as our proposed evaluation.

- 1) **Importance of accessible, integrated care among homeless populations:** A recent meta-analysis (2018) demonstrated the superiority of the PCMH model to typical care, in terms of follow-up and treatment adherence among low-income populations,<sup>xix</sup> although no specific analyses for homeless populations were included. The results underscored that the primary innovation of PCMH is reducing barriers to appropriate care, indicating the positive benefits



of “service rich” social supports. Other studies have indicated similar findings among the homeless population.<sup>xx</sup>

PCMH does not, however, outline procedures for properly integrating social services required by homeless populations (although it is recognized as a platform through which such services may be delivered). Nor does the model include integration of specialty care providers (although an extension of best-practices is available); studies have indicated barriers often prevent specialty care among the low-income population,<sup>xxi</sup> despite being important to high-risk, high-need populations.<sup>xxii</sup> **Based on this research, delivery of care to homeless populations should surpass the PCMH model and include tightly integrated clinical services (e.g., primary care), specialty services (e.g., gastroenterology), and non-clinical services (e.g., housing supports).**

- 2) **Efficacy of Telehealth Among the Homeless Population:** Telehealth, meanwhile, may be the means to accomplish such immediate and broad connections in an extremely cost-effective way. Technology barriers are not as insurmountable among the homeless populations as may be supposed. Most unstably housed individuals own phones.<sup>xxiii</sup> One study marked just 11% worse odds of telehealth usage among homeless populations (veterans),<sup>xxiv</sup> and some practices (as indicated in NHCHC’s case studies) measure *comparable* rates of technology use and familiarity between homeless and housed populations.

Among non-homeless populations, telehealth has paved the way for successful integration of specialty services among pediatric patients, pre-operative anesthesiology,<sup>xxv</sup> eye care,<sup>xxvi</sup> rural populations,<sup>xxvii</sup> rheumatology,<sup>xxviii</sup> and vulnerable populations.<sup>xxix</sup> Telehealth, especially in behavioral health settings, has proven to be useful and popular among participants experiencing homelessness.<sup>xxx xxxi</sup> *One analysis found that if telehealth were not available nearly 3 out of 10 patients would have sought care at the ED and 4 out of 10 patients would not have sought care at all.*<sup>xxxii</sup> At least one program for managing HIV/AIDS among a low-income population demonstrated equal outcomes between in-person and telephonic implementations.<sup>xxxiii</sup> Harbor Care’s own program analysis noted that telehealth has helped patients overcome transportation and childcare barriers.

Other studies have, however, noted heterogeneity of mobile usage among high-need populations.<sup>xxxiv</sup> In an intervention done in collaboration with the VA, homeless veterans received a tablet to connect to telehealth (pre-pandemic). Only half of veterans used the platform successfully, and non-usage was correlated with greater age and severity of housing instability.<sup>xxxv</sup> Standing issues are the costs of phone plans and minutes, Wi-Fi connectivity, and privacy concerns. **Based on the evidence, telehealth interventions for low-income and homeless populations should be extended past the pandemic, but practices must make technology and technical assistance available for at-risk populations.**

- 3) **Technical telehealth supports:** In a series of eighteen case studies among community health centers, the National Healthcare for the Homeless Coalition noted the recurrent technical and connectivity issues providers experienced when using telehealth platforms.<sup>xxxvi</sup> Systems are frequently overly complex for patients and providers, and limited resources were available for training and connecting patients. In many cases, as a result, patients may call rather than connect with video, which presents obvious challenges to basic visual assessments. In addition, a recent scoping review of care coordination among high-need patients also

indicated technology and systems to best serve these populations is underdeveloped.<sup>xxxvii</sup> Case reviews from the Rand Corporation<sup>xxxviii</sup> recommend incorporating telehealth coordinators for patients and providers. **Based on this evidence, effort must be extended to build simple interfaces, education resources, and precise workflows to facilitate care among homeless populations.**

## RESPONSE

### Corresponds to Section V.1 Review Criterion 2: RESPONSE

**1. Describe the evolution of your use of virtual care over the past several years, including:**

**a. Barriers and facilitators to telehealth and how they have changed over time, including patients' adoption of technology and organizational considerations such as workforce capacity, technology, connectivity, and reimbursement;**

A forty-year-old multidisciplinary organization, Harbor Care has a unique history of developing responses to emerging needs among the homeless population, including technological solutions, such as the early adoption of multi-site networks to the development of our region's Homeless Management Information System to modern telephonic triaging tools. For more than 10 years, the leadership team has understood the opportunities telehealth might present our clients; unfortunately, the service model was not reimbursable, and especially given the other competing and unreimbursed needs of our population (e.g., dental care, substance use withdrawal, housing), revenue streams for a viable virtual care program did not exist. Nevertheless, Harbor Care incubated several mobile and telephonic programs designed to increase the accessibility of care. Previous interventions included:

- A mobile clinic, which during the pandemic was used for segregated COVID-19 testing
- A mobile crisis response team, which responded first by phone to triage and then in person to behavioral health crises in the community
- A mobile and on-demand syringe access program (known as the Syringe Service Alliance of the Nashua Area, or SSANA)
- Street outreach teams that seek to connect homeless individuals to care; teams round at local shelters and on the streets
- Embedded satellite FQHC sites at a residential substance use treatment facility and an emergency housing facility
- Telephonic recovery support services, replicated and now reimbursed statewide through a network of Recovery Community Organizations
- Alternative access points for substance use services at fire stations (known as Safe Stations), through partnership with the City of Nashua as well as fire, police, hospital, and ambulance personnel
- A coordinated entry line for the Greater Nashua Continuum of Care service agencies to provide real-time housing supports to homeless populations
- Home care services for individuals with high-need and low-income, through affiliate Healthy at Home

Provision of these services, as well as our many service sites, required a substantial technology infrastructure, including cloud-based solutions, to accommodate remote staffing models. Thus, with the onset of the pandemic, Harbor Care rapidly implemented a virtual delivery model for nearly all health and social services, **without any significant down-time.**

The two essential technological components of our telehealth program include our telehealth platform Doxy.me and cloud services (through our EMR, Centricity, as well as SharePoint and other cloud-based Microsoft tools). Clinical and administrative staff also designed new workflows to limit in-person interactions. Since the first weeks of the pandemic, to support its virtual care program, Harbor Care has worked to improve its foundational network infrastructure (through private foundations), activated user authentication technology, converted all storage to the cloud, improved our back-up systems and other on-site systems, and implemented several novel telehealth solutions, such as through virtually equipped consult rooms to accommodate patients who may not have private or safe places to access care (described below).

While our transition to telehealth and remote work was successful, it was executed using the tools and resources available at the time. Based on a recent, previously mentioned deep-dive analysis conducted by Coleman Associates, it has become apparent that we need to make further investments to our core network infrastructure (i.e., to improve bandwidth) and select a new telehealth platform (given low-resolution, dropped calls, and a lack of integration with the EMR). The consultant is now working to help us select and implement a better platform by Fall 2021 and develop workflow changes and patient guides. The deep dive also showed high patient satisfaction and usage of telehealth, although technological barriers exist, as discussed above.

- b. The service type(s) of virtual visits provided (i.e., medical, dental, mental health, substance use disorder, vision, enabling, and other professional services);**
- c. The percentage of virtual visits provided in each year, as a proportion of total visits;**

As shown on Harbor Care’s UDS Report, Table 4 demonstrates visits in calendar years 2020 and 2019.

*Table 4*

	2020			2019		
	Patients	Visits	Telehealth	Patients	Visits	Telehealth
<b>Medical Services</b>	1,596	12,336	4,594 (37%)	1,646	10,999	0%
<b>Dental Services</b>	23	38	0%	586	1,582	0%
<b>Mental Health Services</b>	1,431	12,891	9,915 (76%)	1,773	11,494	0%
<b>Substance Abuse Services</b>	143	644	504 (78%)	110	836	0%
<b>Enabling Services</b>	0	0	0%	282	435	

Overall Harbor Care provided 58% of visits via telehealth in 2020. In prior years, no visits were provided virtually

- d. Other virtual strategies for patient engagement, education, and/or improving health outcomes; and**

To better engage our patients during the pandemic, we have implemented several solutions to ensure the success of virtual health.

- **Virtual On-site Consult Rooms:** At times patients do not feel comfortable speaking about behavioral or addiction related matters over their phone or computer. To address this, we configured five consult rooms located within our clinic to support telehealth. These rooms allow patients to enter our facility and securely communicate with their provider, who may be off-site or in a different location.
- **Outdoor Consult Rooms & Increased Mobile Care:** At its housing facilities, Harbor Care has constructed temporary and permanent spaces to facilitate mobile care for patients not as well served through virtual care. At one of our facilities, which serves predominately elderly veterans, we constructed an outdoor, all-season annex to meet with counsellors and healthcare providers from the VA. At several facilities, we also brought new mobile services during the pandemic, such as animal therapy.
- **Telephonic Care:** For patients without access to video technology, Harbor Care staff has adapted protocols to serve clients purely by audio means. For these clients, Harbor Care has dispensed gift cards for phone minutes, although many clients prefer receiving care in public phone booths.
- **Mobile Rounding Tools:** We purchased mobile vital monitors and tablet devices to more flexibly provide assessments and services when patients are onsite.
- **Mobile COVID-19 Testing:** Our mobile clinic van was repurposed for safe COVID-19 testing.
- **Virtual Training Technology:** We introduced “Zoom” rooms to continue to deliver dynamic training experiences to staff and health education to the broader community.
- **Virtual vitals technology:** Harbor Care is also in the process of expanding virtual monitoring technology, through funds granted from private foundations.

In addition to these virtual and mobile solutions to engage patients, Harbor Care was proactive in providing PPE and safety protocols across our many programs as well as supplying tests and vaccines. To date, we have delivered 2,000 doses of the vaccine, and we obtained an ultra-freezer to provide the only approved vaccine to pediatric patients.

**e. How your proposal will build on past experience.**

The homeless populations of Greater Nashua have varied backgrounds, issues, and capacities. As demonstrated in the variety and inventiveness of the agency’s responses, Harbor Care has a resolve to “meet all patients where they are at” — which is an essential attitude when serving these populations. The complex and at times idiosyncratic barriers that the homeless population faces — to telehealth and in general — require dynamic, multi-pronged solutions that are accessible. Our virtual care solution, thus, bridges gaps and builds on previous successes in our technical solutions, our mobile health solutions, personal and community supports, and community partnerships.

**2. Provide your proposal’s logic model as Attachment 1. Provide your work plan as Attachment 2. Describe the underlying evidence, assumptions, and hypotheses that underpin the logic model and your proposed strategies in alignment with the OVC Project Requirements.**

Harbor Care’s proposed intervention develops virtual care equipment, software, workflows, and personnel to ensure maximal and immediate service delivery — including primary, behavioral, SUD, dental, social supports, and specialty health care — at homeless patients’ varied points-of-contact — including within the health center, at housing programs, through patient-owned

devices, and in the community. With a thorough evaluation methodology, we will evaluate the efficacy of each type of access point, with each type of service, and with each type of patient at improving engagement and health outcomes. Our system of virtual care will include two interventions, each of which has identified hypotheses, assumptions, and evidence bases and may be evaluated separately.

**Intervention 1: Enhance virtual care exam room experience through agency-wide dispatch software, improved equipment, and virtual care support.**

**Hypotheses.**

- A. On-demand dispatch software will increase service utilization and integrated care across all Harbor Care’s service offerings and facilitate specialty care.
- B. Care and supports facilitated by dispatch software will improve health outcomes, enabling a high level of virtual integrated care.

**Description.** In Intervention 1, Harbor Care will purchase and implement a new software platform for clinicians and patient services staff to identify available providers in real-time and request immediate dispatch of personnel across domains, including behavioral health professionals, housing specialists, interpreters, and more. A platform under consideration is ID-Queue, which was developed by a social worker of a community health center and implemented in several New England area hospitals and health centers. On the administrative side, the software provides robust data analytic tools for evaluating trends in service requests and scheduling to identify appropriate staffing levels. Primary to this work is developing specific workflows and protocols.

While the platform is useful for in-person or virtual case consultations, Harbor Care anticipates a majority of these case consultations will be virtual, as most patients continue to access care virtually and some providers may be located at different sites, such as patient navigators, housing, or residential SUD specialists. Virtual consultation is also faster and can be used as a key driver towards integrating care. To improve the experience for patients and providers, Harbor Care will outfit exam rooms with more advanced virtual technology, such as wider monitor displays and touch screen interfaces to facilitate clients’ data input when they are in person and to enhance the provider-patient connection.

Given the technical novelty of telehealth and the general issues often experienced by patients connecting virtually, Harbor Care will also employ technical specialists to maintain the software and track service quality, as well as virtual care coordinators to coach patients and providers on proper usage and resolve any issues – once again, in real time as issues arise. These Virtual Care Navigators will function as part Community Health Worker/ Care Coordinator, part Tier-1 IT specialist, ensuring optimal experience for both patients and providers engaging in virtual care and removing related barriers when they arise. In addition, these personnel will help schedule appointments with specialty providers (at our partner, St. Joseph’s Hospital), which will be immediate (if personnel are available) or scheduled during another virtual visit at Harbor Care.

**Evidence & Assumptions.** We assume that a primary barrier to accessing care for patients is multiple points of care, with multiple disconnected providers. Such care reduces referral completion and treatment adherence among a population challenged by transportation and other critical barriers. Intervention 1 relies on the evidence presented above that integrated, rapid care is essential for treating homeless populations and may be more achievable virtually. The

intervention also builds on the assumption that many patients *do* have access to virtual technology, with some assistance required using dedicated Virtual Care Navigators to assist in barrier removal. Intervention 2 implements further measures for those with less access.

**Intervention 2: Scale virtual care exam rooms through i) health kiosks at all Harbor Care’s housing facilities in Nashua, ii) handheld devices used by outreach staff, and iii) within Harbor Care’s mobile clinic.**

**Hypotheses.**

- C. Virtual access points will increase service utilization, referrals, and completed referrals across all Harbor Care’s service offerings and specialty care.
- D. Increased and more integrated care and supports facilitated by virtual access points will improve health outcomes.

**Description.** In Intervention 2, we will promote care among individuals with additional access barriers, such as those living in Harbor Care’s facilities and those living on the streets or local shelters who lack technology needed to participate in virtual care. Harbor Care will install private virtual care access points (“**health kiosks**”) at eleven existing facilities in Nashua: two transitional housing sites for veterans and their families experiencing homelessness, three group homes for individuals with severe mental illnesses who are low-income, four place-based permanent housing complexes for individuals who were previously chronically homeless and/or living with disabilities, one residential substance use facility that serves adult men and women, as well as pregnant and parenting women and their young children; and two other permanent supportive housing apartment complexes leased exclusively through permanent housing vouchers for use by individuals who were chronically homeless and at increased risk of homeless recidivism. Kiosks will consist of secure tablets with an access application to request or check into services appointments, with private and confidential space available at each site to facilitate a comfortable environment for patients. Patient Navigators will provide both virtual and on-site technical assistance and care coordination as well.

In addition, our mobile clinic, complete with a dental operator, primary care/behavioral health care exam room, and bathroom, will be outfitted in much the same way as exam rooms above, serving as a **private, virtual, mobile kiosk** able to be deployed to homeless encampments, senior centers, shelters, libraries, and more. The mobile clinic will regularly visit various sites within Harbor Care’s service area including outside of shelters and soup kitchens, outside of emergency departments, and on school grounds, and provide virtual, private access to all the clinic’s services. In addition, since parts of our service area are more rural with systemic infrastructure issues (e.g., limited broadband and Wi-Fi), the mobile clinic will enable Harbor Care to bring primary, oral, behavioral health and specialty care to the “hidden homeless” within this region. In the past, such service has been stymied due to the high cost of staffing the mobile clinic with providers, given the uncertainty of encounter type and quantity. Using virtual software, the mobile clinic may be staffed with Virtual Care Navigators, CHWs or other clinical/non-clinical professionals. Finally, we will **equip outreach staff and home care staff with Wi-Fi-connected mobile devices** that may be used to request immediate access to appointments, and provide some transportation vouchers for clients in need of immediate transportation.

Here, we build on Intervention 1 by allowing for immediate access to the full range of services within Harbor Care at completely virtual touch points. An essential component of Intervention 2

is the purchase of a clear interface through which remote outreach staff may help patients check into appointments and access services in real-time. The interface will connect with our scheduling and dispatch software of Intervention 1 (e.g., ID-Queue). An important selection criteria for the interface will be usability among individuals with disabilities and those with language barriers to care.

Our proposal includes the development of workflows and costs of additional triage staff, in the event that providers are not available in real-time. As described further below, we are confident that models developed here may be a more cost-effective method of providers “rounding” within housing facilities or on the streets.

**Evidence & Assumptions.** Intervention 2 relies upon the same evidence as discussed in Intervention 1, but addresses the significant limitation that not all individuals have access to virtual technology. We assume patients who are not accessing health services have barriers to this kind of care, as they may lack technology or skills related to technology. The intervention builds on the success of outreach and engagement of patients living on the streets or within our housing programs. Through assistance of Virtual Care Coordinators, this intervention also addresses the providers’ needs, who despite having resources, may still prefer in-person visits and shy away from optimizing virtual care in a way that leads to improved clinical outcomes through integrated care.

3. **Describe how your proposal to optimize the use of virtual care is innovative, including:**
  - a. **How your proposed strategies differ from approaches or strategies previously employed (e.g., targeted patient populations, types of services, provider training and support, patient engagement, technology solutions, infrastructure building, administrative and governance procedures, financial sustainability, taking to scale within your practice, adapting approaches from other industries outside of health care); and**

Harbor Care’s proposed solutions are innovative for a number of reasons:

- **Broad Integrated Solutions for High-Need Individuals:** Harbor Care has long known that homeless populations need a “no wrong door” model of care, where services and care teams are readily available at every point-of-contact. Truly wrap-around care, with integrated social supports, helps patients resolve the major barriers to their health and success, i.e., address the social determinants of health. However, infrastructure and funding barriers have made such models exceptionally difficult to effectuate, especially given the moderate volume of patients served. *Our proposed solution is the cost-effective model of “no wrong door” that we have been seeking, utilizing virtual care to drive integrated care, thereby leading to more promising outcomes among the target population than traditional face-to-face care can provide.*
- **Integration Across Many Points of Care:** By providing service in the clinic, on the streets, as well as in transitional housing facilities, group homes, permanent housing apartment complexes, and a substance use treatment facility, our solution provides many points of care, each of which provides essential service-related data on each site and population. Moreover, measures taken will integrate a range of federally funded program models — including transitional housing program (VA), homeless outreach programs (SAMHSA), employment programs (DOL), and substance use treatment programs

(SAMHSA). Harbor Care is also NH's only HUD-designated Envision Center. As an Envision Center, we are charged with fostering innovation and community collaboration across our region. Thus, our model will demonstrate a method for braiding funding to resolve health and housing issues that span multiple federal agencies and partners. *Since Harbor Care operates all of these services — unique among FQHCs — it is an ideal partner for piloting such an initiative and demonstrating effectiveness at all various sites.*

- **Cost-effective Mobile Care:** Mobile clinics, in-home/in-shelter rounding, and street medicine programs are excellent models for delivering care, but challenging to make sustainable. *Our model increases providers' productivity by utilizing existing on-the-ground staff to facilitate and initiate visits, while they continue to serve patients in-office.* Our model is thus more sustainable given moderate volumes of patients. Moreover, it is flexible with the changing telehealth reimbursement landscape by incorporating multiple avenues for delivering care (i.e., providers may still offer patients' initial visits in-person in the mobile clinic, which may ultimately be required by Medicaid regulations).
- **Adoptable & Scalable:** Targeted, broad, and cost-effective, Harbor Care's solutions may be adopted and adapted by agencies and groups of agencies seeking to improve care within their homeless populations, especially those communities of similar size (i.e., horizontal adoption). The use of a third-party evaluator will ensure that both process and clinical outcomes are well documented. *Once demonstrated as successful, our solution may be adapted by incorporated kiosks into emergency departments and other agencies serving the homeless population in our area.*

**b. How your proposed strategies offer innovative solutions to the challenges and needs identified in the NEED section.**

Ultimately, our solutions address all barriers identified within our NEED section for an extremely vulnerable population who have unique barriers to optimizing not only health care in general, but also virtual care: those experiencing or at risk of homelessness. We will extend services through a range of new access points to serve the **homeless** and low-income populations of Greater Nashua, particularly in its **urban core and rural homeless outliers**. These new access points will increase the **provision of care** among low-income populations by providing alternatives to **transportation**, childcare, and other known barriers. Our new dispatch system will weave together all components of the Harbor Care system, helping to eliminate **care silos**, even among specialty providers. The system also resolves **language barriers**, with rapid access to translation services, and the variety of connection options to help reduce **technology barriers**. Provided care will help address the most pressing health disparities, particularly those around **behavioral health**, as well as **chronic illness management** and **preventative care**. Moreover, connections with case managers and housing specialists of Harbor Care help address the complex issues surrounding **social determinants of health** among Greater Nashua's most vulnerable.

4. **If applicable, describe how proposed minor A/R activities and/or equipment purchases are integral to your proposal. Your response should align with, and not duplicate, the information in the budget, A/R Project Cover Page(s) and/or the Equipment List Form.**

N/A



## RESOURCES/CAPABILITIES

### Corresponds to Section V.1 Review Criterion 3: RESOURCES/CAPABILITIES

1. Describe your capacity to implement and evaluate your proposed project, including your:
  - a. Experience using virtual tools to increase access to comprehensive, patient-centered care, improve clinical quality, and support patient engagement, care integration, care management, care coordination, and/or care transitions; and

**Harbor Care Overview.** Harbor Care is a large New Hampshire based non-profit organization established in 1980 whose mission is to ensure that all people we serve receive integrated, personalized, and end-to-end care, service, and supports that enable their path to a successful life. Governed by a 13-member volunteer Board of Directors, Harbor Care employs approximately 365 people across all of its programming, and has a combined budget of approximately \$41 million. Its largest funders include US Departments of Housing and Urban Development, Health Resources and Services Administration, Substance Abuse and Mental Health Services Administration, Veteran Affairs, and the State of NH, including Medicaid/ Medicare and other insurances.

To best meet the needs of those we serve, Harbor Care focuses on seven core areas of service: supportive housing, behavioral health care including substance use disorder treatment and mental health care, primary healthcare, oral health care, veteran services, HIV/AIDS services, and home care services. Its primary service population is individuals and families experiencing or at risk of homelessness who are low-income and live in New Hampshire. While Harbor Care's administrative headquarters is in Nashua, NH, the agency offers some services statewide, with facilities and office locations in Manchester, Antrim, Claremont, Salem, Plymouth, Concord, Keene, and Brentwood. Our services expand beyond the provision of health care, and include the recent formal merging of an affiliated 66-bed residential substance use disorder treatment agency and an AIDS Service Organization into our organization. Each year, more than 5,000 NH residents receive services through Harbor Care and its affiliates.

**Programs & Services.** Harbor Care is a pioneer and an innovator in how an organization can address the many overlapping, complex challenges that contribute to homelessness. Unemployment, poor physical health, inadequate access to health care, domestic violence, untreated substance use and mental health disorders, disabilities, legal troubles, foreclosure, low levels of education, and lack of family and social supports all play a role. Harbor Care takes an integrated, holistic, and trauma-informed approach to housing and healthcare that helps NH's families gain and maintain sustainable independence. No one is turned away due to an inability to pay; most pay nothing for services. A snapshot of services offered include:

- Harbor Care Health and Wellness Center: Integrated primary, preventive, behavioral, and oral health care at low-to-no cost to more than 3,000 homeless and low-income community members of all ages and stages. Harbor Care Health and Wellness Center is a cornerstone program of the agency, and a first point of entry to the social service system for many community members. A 330h Federally Qualified Health Center for the Homeless, the Center is one of NH's largest FQHC MAT providers and NH's only

standalone FQHC specializing in meeting the needs of individuals experiencing or at risk of homelessness. The Center is constantly adding critically needed services, such as expanded behavioral health care, targeted methamphetamine treatment, and HIV services. Within Harbor Care, primary, behavioral health, preventive care, and oral health care is effectively delivered in ways that address the unique challenges our target population faces when accessing or utilizing health care services. Our primary care team consists of MDs and ARNPs able to serve children through adults. Eight ARNPs and MDs are able to prescribe buprenorphine or naltrexone, and all primary care providers and medical support staff utilize SBIRT. Behavioral health clinicians, including an on-call psychiatrist, several psychiatric ARNPs, an APA-approved (pending) PsyD program, and many master's-level mental health clinicians or licensed social workers, provide mental health care so that it is integrated with a patient's primary and oral health care. Substance use disorder treatment in the form of counseling and other non-pharmaceutical therapies (non-MAT) is provided through LICSWs, LADCs or MLADCs. Case managers, community health workers, Community Recovery Support Workers, and Patient Navigators provide enabling services. A dentist and dental assistants provide a full continuum of oral health care. A Pharmacy Director oversees our 340B program, and manages staff that operate the in-house pharmacy. Medical and enabling staff are in place to meet current and future demand for services, with patient-provider ratios at manageable numbers, given the acuity of patient need.

- Residential and outpatient substance use disorder treatment, prevention, and recovery support services to 500+ individuals annually (about 50% of individuals served annually have children) and home to the Cynthia Day Family Center, one of two high-intensity residential treatment centers in NH for pregnant and parenting women and their children, with children living on-site with their mothers as co-clients and receiving robust services during and after their stay;
- HIV/AIDS education, case management, supportive services, affordable housing, prevention, and, soon, HIV primary care services to more than 200 HIV+ households annually;
- Visiting Nurse, health care and homemaking services for elderly, disabled, and home-bound individuals to more than 200 individuals annually;
- Affordable and supportive housing solutions to more than 1,000 individuals annually (including more than 300 children), most living with chronic behavioral health disorders, through more than 500 units of crisis, transitional, permanent supportive and income-based rental housing;
- Envision Center: In Fall 2020, the U.S. Department of Housing and Urban Development designated Harbor Care as NH's first EnVision Center. While not attached to specific funding or a prescribed model, this designation tasks Harbor Care with coordinating partnerships and services that encourage self-sufficiency and Community Economic Development (CED) among Nashua's low-to-moderate-income households. The Center is located in the heart of Nashua's lowest income community and co-located with Harbor Care's FQHC. EnVision Centers are community-driven with four broad pillars—economic empowerment, educational advancement, health and wellness, and leadership development. As an EnVision Center, Harbor Care maintains an important perspective: healthcare for underserved populations, including interventions of this proposal, necessarily increase housing stability and economic development.

- Employment services, training, workforce development; and
- Veteran services through our Veterans FIRST programming, including specialized housing, employment, financial assistance, and supportive services to more than 400 homeless veterans and their families.

**Impact.** Our outcomes demonstrate that Harbor Care’s innovative approach is effective and efficient. Because of our programs and operating model, Greater Nashua experienced an 83% reduction in its unsheltered homeless population, and an 80% reduction in the number of chronically homeless persons over the past decade. Almost all of these individuals were living with SUDs and/or mental health disorders and children were often members of the household. In Greater Nashua, Harbor Care led the efforts to end homelessness for persons living with HIV/AIDS and veterans, in accordance with federal standards, and we are on track to end chronic homelessness within the next several months. Concurrently, as the number of housing options for the homeless increased within Nashua, the welfare budget decreased by about half.

All of our programs and services work together to help the target population gain and maintain sustainable independence — an outcome we hope all patients may achieve. A sampling of related outcomes include:

- The lowest rate of chronic homelessness in NH, with an anticipated official functional end of chronic homelessness in calendar year 2022 (Greater Nashua).
- Among previously homeless/chronically homeless individuals living with behavioral health disorders, an average length of stay in Permanent Supportive Housing of approximately 6 years.
- The functional end of veteran homelessness since 2017 (Greater Nashua).
- 84% of previously homeless clients who participated in Harbor Care’s SAMHSA-funded Greater Nashua Services in Supportive Housing maintained community tenure, without recidivism into homelessness.
- In large part through Nashua Safe Stations, a collaboration with Harbor Care’s FQHC, City of Nashua first responders, the local ambulance company, and emergency departments, a 43% reduction in annual opioid overdoses and 50% reduction in overdose deaths since 2016.

**Virtual Care.** Telehealth services ramped up during the pandemic, with nearly all one-on-one outpatient behavioral health services occurring through this technology at the height of the pandemic. HIV/AIDS Peer Support groups and Intensive Outpatient Programs for SUD were also run virtually for a period of time. Primary care and MAT physicians, case managers, and nurses worked with patients over the phone and video. Harbor Care’s history of virtual and mobile service delivery is described above. Historically, IT staff have led the Harbor Care in adopting and implementing new technology systems, typically ahead of our peers, such as remote and virtual technologies like virtualized servers, VOIP phones, and multi-site VPNs. They provide technology to at least 350 employees across 17 sites, and have overseen the implementation of our networks, two Electronic Medical Record systems, cloud implementation of Share Point, and a patient portal.

- b. Experience with health IT interoperability and using data to understand care gaps, support care coordination, and plan staffing workflows.**

The EHR of Harbor Care's FQHC has typical interoperability functionality for a health center of our size. We may import and export patient records using the Consolidated Clinical Document Architecture (CCDA), the universal tool to share data between other EHR platforms. In addition, we have interfaces with our lab partners, Quest Diagnostics, to facilitate orders and results. In addition, through Dr. First, we facilitate the import and export of medication and prescribing histories for patients.

Because Harbor Care is a non-traditional FQHC, including the provision of housing services, the integration of internal data systems is also essential to our work. Currently, Harbor Care has partnered with volunteers for Fidelity Investment's Common Impact program, to plan the foundational steps for data warehouse functionality, which would allow administrative, clinical, and quality staff to pool currently siloed clinical, housing, and specialty services databases and perform analyses on the combined datasets.

In addition, in an important project funded through Ryan White Part C, Harbor Care is integrating Business Intelligence and Analytics software with our EHR, to create a real-time end-user friendly data warehouse as well as an integrated module for our existing financial software. This integration will enable us to develop a high-quality Management Information System. Both technologies will interface with our existing EHR to improve data collection, reporting, and quality improvement activities. While these improvements are designed to improve HIV Primary Care specifically, the successful integration of technologies will provide the foundations for more advanced, streamlined data analysis across all of Harbor Care's services.

Data analytics capacity and personnel are described further in 2 (d and e).

- 2. Describe the organizational capabilities and resources you will leverage to implement and evaluate your proposed project, including:**
  - a. Key personnel, inclusive of but not limited to proposed project management with demonstrated experience as champions of virtual care, innovation, and evidence-based practice;**

#### *Leadership*

**Peter Kelleher**, *CEO and President of Harbor Care*, provides strategic visioning, development, and oversight of 80+ cost centers. Mr. Kelleher earned his BA in Psychology from Clark University and his Master degree in Social Work from Simmons College School of Social Work. He has more than 40 years of experience in the field of health and human services, non-profit management, and low-income housing and facility development. Peter began his career in the non-profit sector as Harbor Care's first employee in 1982. Past positions include roles at MIT, Middlesex Community College, and the Massachusetts Tuberculosis Treatment Center. As the former Chair of the State Interagency Council on Homelessness, Peter has long been involved in shaping public policy in NH. Mr. Kelleher is the recipient of numerous awards, recognizing his leadership and impact on the community, including Community Development Leader of the Year by the University of New Hampshire (2003); National Alliance for Mental Illness NH Annual Award for Systems Change (2007), the Peter Medoff AIDS Housing Award (2007), the Walter J. Dunfey Corporate Fund Award for Excellence in Non-Profit Management (2009), and the NH Business Magazine Excellence in Nonprofit Award (2010). Peter recently had the honor of serving on the US Secretary of the VA's National Advisory Committee on Veteran Homelessness. He also served as a board member of the Bi-State Primary Care Association and on numerous local and state committees. *System integration of the type proposed in this project*

*has been a key strategic objective of Peter and the Board's for many years; reducing barriers to success among low-income populations has been his life's work.*

**Henry Och, Chief Operating Officer,** oversees several directors and more than 10 program models delivered across 17 sites. He leads a continuous quality improvement process throughout Harbor Care's program and service areas, focusing on process improvement and promoting ongoing opportunities for all staff to give feedback on program operations. Henry joined Harbor Care with over 20 years' experience in non-profit healthcare, most recently as Chief Operations Officer/Chief Information Officer at Lowell Community Health Service. From 2010 to 2014 he also served as Adjunct Professor at the University of Massachusetts where he instructed graduate students in Health Informatics and Health Management. Henry is a commissioned Infantry officer in the Massachusetts Army National Guard in which he currently holds the rank of Lieutenant Colonel. He served as operations officer at ISAF Headquarters in Afghanistan in 2014, where he was awarded the Defense Meritorious Service Medal. *As a former CIO and with years of experience in Health Management, Henry has a deep knowledge of the operational steps needed for this project's success and the leaderships skills with which to assure their completion.*

**Jonathan Brown, FQHC Clinic Director,** oversees daily operations and directs strategy, quality compliance, and a team of health care professionals including specialized physicians and licensed clinicians, health educators, pharmacists, and administration. Mr. Brown holds a Masters of Business Administration Degree and a Bachelor of Science Degree in Information Technology/Business Systems Analysis from the University of Phoenix in Phoenix, AZ. Before joining Harbor Care, Mr. Brown served three years as CEO, after serving two years as CFO, of Indian Stream Health Center, an FQHC with clinical locations in Colebrook, NH and Canaan, VT. Mr. Brown has been an active community volunteer, having served on numerous boards and committees including board volunteer for the North Country Chamber of Commerce, the North Country Health Consortium Board and the North Country Accountable Care Organization Board. He is a graduate of the Bi-State Primary Care Association Leadership Development Program, the George Washington University Geiger Gibson Leadership Development Institute, North Country North of the Notches Leadership Program, Neil and Louise Tillotson Grantee Learning Community, and the Office of Rural Health Policy Rural Voices Leadership Program. *Long a leader of FQHCs, Jonathan brings the business and technical systems acumen needed to make the proposed project a sustainable enterprise.*

**Graciela Silvia Sironich-Kalkan, MD, Medical Director,** earned her MD from Universidad de Buenos Aires, Argentina. She completed residencies and fellowships in Critical Care and Internal Medicine at Hospitals and Universities in Argentina and the United States. She founded and subsequently served as a board member of the Parenteral and Enteral Nutrition Association. She has been a member of the Intensive Care Argentine Society, Cardiology Argentine Society and the Biologic's Security Committee and Infection Diseases Committee at the Navy Hospital where she worked. In 2012, she joined the Harbor Care Health and Wellness Center (HCHWC). Now the Medical Director of the HCHWC, Dr. Sironich-Kalkan works tirelessly to ensure an integrated healthcare center that provides comprehensive Behavioral Health and Primary Care assistance for adults and children, primarily those experiencing or at risk of homelessness. In 2014, through grant funding, she initiated the creation of a MAT program which she continues to oversee and advise on. MAT services have expanded since their creation and integrated into the workflow of the clinic. She participated in the development of an integrated workflow to include EIS, and continues to uphold high standards and oversee the process. She has also taught

CPR/AED and First Aid for adults, children and infants in both Spanish and English. Dr. Sironich-Kalkan currently volunteers at The Red Cross, Nashua Chapter; The American Cancer Society, and as Secretary of the Governor's Advisory Commission on Latino Affairs. *Dr. Sironich-Kalkan brings the experience of decades of compassionate, patient-centered care, clinical oversight, and truly integrated care.*

#### *IT Personnel*

**John Szyszlo**, *IT Director*, has decades of IT experience, as well as Health System specific experience with EMRs and Cybersecurity. His most recent work outside of Harbor Care was for an organization supporting two large hospitals/ health systems' IT needs, where he was part of the Incident Response Team, and participated in desktop exercises designed to simulate an emergency IT situation, using the results for process improvement. As the IT Director for Harbor Care, Szyszlo oversees all activities of the Information Technology department. He is responsible for overseeing the IT Disaster Recovery Plan, and given the technology utilized in patient care and record keeping, Szyszlo's IT expertise in cybersecurity, telecommunications infrastructure, and rearchitecting of network infrastructure will be invaluable as Harbor Care develops and executes it's EPMP. He currently holds a BA in Computer Science from Boston University and is beginning work towards a Master's degree in Data Analytics. *John brings sound, comprehensive IT knowledge specific to the healthcare and experience in implementing novel, innovative solutions.*

**Geoffrey Brundage, Sr. Data Analyst**, has 20+ years' experience in Healthcare Management, particularly in IT roles. Geoffrey holds a Bachelor of Science in Computer Information Systems from Southern NH University. He has a broad skillset, including project management, quality improvement, IT budget management & control, IT operations & systems management, technology review & upgrade, and risk management. He also has a sound knowledge of change implementation. *For this project, he will be instrumental not only in developing technical solutions but also in developing successful processes by modeling workflows, utilizing software to monitor outcomes, and recommending actionable improvements based on the data.*

#### *Quality Assurance Personnel*

**Mary Beth LaValley**, *VP of Quality Assurance*, oversees the planning, strategy, monitoring, and implementation of all QI/QA initiatives. She has 20+ years of experience in behavioral health care management, including compliance and business development. Prior to her current position, Mary Beth was employed by Farnum Center as Vice President, and prior to that for 12 years at The Mental Health Center of Greater Manchester as the Vice President of Strategic Planning and Business Development. She holds a M.A. in School Health Education from Texas Women's University in Denton, TX; a B.S. in Business Management from Franklin Pierce University in Concord, NH; and an A.S. in Computer Science from the University of Great Falls in Great Falls, MT. *Mary Beth brings well-rounded health care, business development, and technical skills instrumental to the successful implementation of quality initiatives.*

**Erin Sawicki, MPH**, *Grants Manager*, plays a formative role in Harbor Care's Quality Assurance/Quality Improvement initiatives and policies. She implements internal monitoring procedures to facilitate quality performance outcomes, coordinates third party research and evaluation initiatives, develops and evaluates programmatic reports, prepares the agency for random and scheduled audits, and ensures compliance with external and internal policies and

procedures. She has nearly 15 years of experience addressing disparities among underserved populations, with a particular emphasis on people living with HIV/AIDS. She holds a Master's in Public Health from the University of Massachusetts, Amherst. She was recognized in 2018 for Outstanding Evaluation from the American Evaluation Association. *In addition to experience with compliance and quality initiatives, Erin brings technical healthcare research experience, as a former Sr. Research Associate at Barker Bi-Costal Health Consultants, Inc.*

**b. Key partnerships with other organizations to maximize the capacity to implement your proposal and achieve its intended outcomes;**

Specifically for this initiative, Harbor Care has included a letter of support from St. Joseph Hospital. St. Joseph Hospital is a regional, full-service healthcare system serving the Greater Nashua area, western New Hampshire and northern Massachusetts. They provide a full range of specialty care including, endocrinology, gastroenterology, neurology, obstetrics and gynecology, midwifery, orthopedics, oncology, palliative medicine, physical Medicine & physiatry, podiatry, pulmonary medicine, rheumatology, and surgery. We also have referral agreements with many other providers including Southern NH Health System. A summary of contracts is attached to this application.

As a non-traditional FQHC that offers significant other services related to social determinants of health, we maximize the project's potential by controlling the environment and mitigating barriers to the success during the pilot phase. Few to no other FQHCs have the breadth of internal programming that Harbor Care has, which will thus lead to a higher level of project success and clinical outcomes. The eleven kiosk sites noted in our RESPONSE section are internal to Harbor Care with no regulatory or organizational barriers to adoption of the technology, facilitating robust evaluation.

Additional noteworthy partnerships include:

- **Third-Party Evaluation:** Harbor Care will seek a third-party evaluator to assist in evaluation. In the past, Harbor Care has worked with well-established partners, such as the John Snow Institute and MDRC, which have years of experience assessing the programs of health systems and nonprofits.
- **Greater Nashua Continuum of Care:** Harbor Care also partners with essentially all of Greater Nashua's homeless service providers, mainly as the lead entity of the Greater Nashua Continuum of Care and as Greater Nashua's EnVision Center. In this collaboration, we work closely with nearly 30 organizations that support the homeless population. Partners include hospitals and health care groups (e.g., Southern NH Health Systems, Lamprey Health Care, St. Joseph Hospital), food and nutrition organizations (e.g. Nashua Soup Kitchen and Shelter, NH Food Bank), municipal groups (e.g. City of Nashua, Town of Merrimack), and other service organizations (e.g. NH Legal Assistance, Gateways, Bridges: Domestic & Sexual Violence Support). Together, we oversee federal funding, evaluate projects, and ensure individuals and families in need have real-time access to services that are unduplicated through a community-run coordinated entry system. Staff from Harbor Care chair the Continuum and serve on every committee.
- **EnVision Center Partners:** As the EnVision Center (explained above), Harbor Care partners with a dozen partners, including health care partners (Solution Health, Lamprey Health Care, Process Recovery, Greater Nashua Mental Health Center), employment/education supports (Opportunity Works, Greater Nashua Community

College, Antioch University) and low-income service providers (Habitat for Humanity, Rise Above, Southern NH Rescue Mission).

- **Government & Other community Partners:** Our programming has led to partnerships with NH Employment Security, NH Housing Finance Authority, NH Bureau of Adult and Elderly Services Office of the Governor, Greater Nashua Regional Public Health Network, City of Nashua Welfare Department, Office of the Mayor, City of Nashua, Nashua VFW, Other Area Town Welfare Department, and VAMC Manchester.
  - c. **Recognition for delivering high quality, comprehensive, patient-centered care to underserved communities and vulnerable populations (e.g., recognition for patient centered medical home, ambulatory care accreditation, exceeding clinical quality benchmarks or other relevant patient safety, care delivery, quality or organizational awards);**

Harbor Care is a Patient-Centered Medical Home, with several programs CARF-certified. The agency receives frequent recognition from HRSA, including in 2020 as a “Clinical Quality Improver” and as “Advancing Health Information Technology for Quality.” Harbor Care also received supplemental funding in 2017, 2018, and 2019 based on its superior quality improvement initiatives.

Outside of healthcare, Harbor Care has helped Nashua achieve an effective end to veteran homelessness since 2017 and an end to homelessness among individuals with HIV/AIDS since 2009. Harbor Care is also the lead entity in the Greater Nashua Continuum of Care and Greater Nashua’s EnVision Center (as of 2020), a designation for the Department of Housing and Urban Development that tasks Harbor Care with generating new programs and partnerships to alleviate poverty, education barriers, health disparities, other impediments to social mobility.

- d. **Experience in rapid cycle quality improvement and practice transformation, including collecting and applying process and outcome data to evaluate results and inform continuous quality improvement of strategies/interventions to increase access and improve clinical quality; and**

Harbor Care continuously operates a Clinical Quality Improvement (CQI) program as part of its FQHC. The program includes a variety of technical and clinical staff, and precise procedures for peer reviews, internal audits, clinical meetings, and workplan development. As a primary resource for TA on matters of healthcare quality improvement and change management Harbor Care follows the guidelines from the Institute for Healthcare Improvement.

Harbor Care has long used the PDSA (plan, do, study, act) methodology to facilitate quality improvement, a methodology which employs insights from the scientific community to implement and test small-scale, cost-effective changes for their effect on quality, cost, impact and side-effects. Recently, Harbor Care engaged Weitzman Institute (Community Health Center, Inc.; a FQHC in CT) on a Clinical Workforce Development Technical Assistance project as part of their National Collaborative arrangement with HRSA. Their coaching and strategies enabled Harbor Care to implement an expanded methodology for data driven, cutting edge quality and operational improvement of advanced team-based care.

Specifically designed for health centers and look-alikes, the method implants the PDSA methodology within a more complete strategy. Steps include: 1) define team roles; 2) assess baseline; 3) develop global aim; 4) define problem; 5) brainstorm solution; 6) generate specific



aims and measurements; 7) PDSA (plan, do, study, act); 8) SDSA (standardize, do, study, act); and 9) Spread, Measure & Monitor. The method encourages projects to identify and solve the *right* problem and implement a standardized solution. We recently deployed this technique to improve care for diabetics with an A1C over 9. We started with one provider team who was the champion of this effort and are now “Spreading, Measuring, and Monitoring” the continuous quality improvement effort.

In addition, Harbor Care’s COO, who is a former university adjunct professor, has led interdisciplinary cohorts of management and administrative staff across Harbor Care in the Project Management Institute (PMI) course on project management principles. The method not only encourages staff to oversee projects more effectively and standardizes terminology, but has encouraged personnel from across Harbor Care to develop new and implementable quality improvement projects.

**e. Experience collecting and analyzing patient and community level data, including clinical and SDOH data to develop strategies that address health disparities.**

**Data Collection & Data Quality.** Nearly all of our more than 350 staff are engaged in some level of data collection. For our EMR, in addition to providers, Harbor Care has a robust 9-employee patient services team, including records clerks, patient services representatives, and records scanners, who are responsible for inputting accurate patient data. On the IT side we employ an EMR systems administrator, a senior data analyst, and a clinical systems coordinator. Other data systems Harbor Care uses also have designated IT and data staff. Processes for entering clinical data are well-defined as are procedures for assessing data quality. Harbor Care also runs regular satisfaction surveys across all patients and programs.

**Data Reporting, Monitoring & Analysis.** As an FQHC and a grantee of numerous federal, state and local government entities, Harbor Care reports frequently on its data. Programs receive multiple evaluations and audits annually including from SAMHSA, HRSA, SSA, and the state of New Hampshire. Internally, Harbor Care has developed dashboards for monitoring all programs. We have an adept Compliance Department that works closely with our QI Director who oversees the creation and implementation of our QI Plan, inclusive of the above efforts and clinical quality measures across all programming. Efforts are headed by Erin Sawicki, MPH.

In addition, Harbor Care engages third-party evaluators, such as JSI or MDRC, to evaluate innovative programming, such as our Homeless Outreach Program (supports for homeless individuals with SUD), MERIT (supports for individuals with Methamphetamine Use Disorder), or BEES (a randomized controlled trial encouraging employment among individuals with SUD). Worth noting, our own analysts have helped inform public policy. During the height of the opioid crisis, Harbor Care was the primary partner of the City of Nashua to provide urgent treatment and withdrawal management. Our analyses informed City as well as State policies around the opioid epidemic.

On a community level, Harbor Care engages with a consultant during strategic planning activities to perform a qualitative and quantitative needs analysis of Greater Nashua, relying on interviews, internal data, and other publicly available sources.

**Database Administration.** Harbor Care is administrator of its internal databases (e.g., EMR) as well as state-wide systems to track the housing and health outcomes of vulnerable populations.

For example, Harbor Care initiated NH’s Homeless Management Information System (HMIS) and served as the system’s administrator for the first 15 years of its implementation. In addition, Harbor Care is the Facilitating Organization for our state’s Recovery Community Organizations (providing nonclinical supports for SUD), and is the administrator of the cloud-based database systems for State’s 15 RCOs, ensuring data quality and analyzing data for outcomes and trends.

**Data-Informed Program Development.** In all cases, data from the above analyses guides program and business development. Program development teams include clinical, programmatic, and administrative staff who review evidence from Harbor Care’s databases and analyses. In addition, staff rely on publicly available report and datasets, which may be examined with statistical software to more precisely understand the impact of SDOH on low-income populations.

## IMPACT

### Corresponds to Section V.1 Review Criterion 4: IMPACT

#### **1. Describe the key impacts you anticipate the project will have on increasing access to comprehensive, patient-centered care and improving clinical quality, including any projected reductions in health disparities.**

As presented in our logic model, the project will have a profound impact on Harbor Care’s overall capacity to deliver and optimize virtual care for vulnerable at-risk populations. The project impacts staff (through training and gains in skills and knowledge among 150 staff members—nearly half of our staff), agency infrastructure (through new hardware, equipment, and software platforms within 10 exam rooms, a mobile clinic, and 11 access points at facilities throughout Nashua), and program integration (through new services connections, partnerships, and cross-program data tracking).

Most importantly, our proposed interventions will increase quantity and quality of services provided, driving improved clinical outcomes among patients. Changes will impact our entire patient population. Given changes to regulation and patient behavior during the pandemic, precise estimates of care are difficult to predict. Nevertheless, once implemented, we anticipate our telehealth program will continue to facilitate approximately 7,000 encounters (approximately 700 return patients and 300 new patients) in the first year of implementation, of which the web application and new access points developed through this proposal will generate 3,000.

Dispatch software will generate 2,000 referrals across primary, behavioral, and social programs, in the following estimates: 2,000 successful referrals in first year of implementation including primary care (300), behavioral health care (500), specialty care (400), housing case managers (300), patient navigation/ community health workers (250), employment supports (50), substance use disorder treatment (100), and translation services (100).

In the short-run, these gains will increase utilization of integrated services across Harbor Care. All outcome measures appear on the logic model and in the chart below. Worth highlighting further are the impacts on integrated care and barrier reduction seen through increases in patients seen concurrently by multiple providers, increases in patients accessing multiple services, increases patient engagement (as assessed at regular intervals), and reduction of disparities due to language barriers. When achieved, these outcomes signal the project is addressing the under-provision of care due to care silos and other barriers, such as transportation, language, and technology as identified in the NEED section.

In the long-run, we hope to reduce health disparities experienced by the target population related to access to care and treatment adherence. Because this project will deepen integration among providers, we address social determinants of health concurrently with healthcare needs. We hope to see improved long-term health and economic outcomes among very-low-income and homeless populations due to faster access of integrated healthcare and social supports. We also believe the model will scales to new community access points.

2. Describe the measures you will use to assess performance, track, and share with the learning collaborative, including, but not limited to:
  - a. UDS, process, and outcome measures;
  - b. The proportion of your total visits that will be virtual and face-to-face visits;
  - c. Demographics of patients engaging in virtual care;
  - d. Types of insurance coverage (e.g., Medicaid, Medicare, private insurance) of patients engaging in virtual care;
  - e. Types of services available virtually;
  - f. Types of virtual care technologies used;
  - g. Patient and provider satisfaction;
  - h. Cost effectiveness and financial sustainability; and
  - i. Relevant clinical outcomes.

Note that because of the implementation timeline and uncertainty surrounding the pandemic, baseline metrics will need to be calculated based on 2021/2022 data. We intend on engaging a consultant to assist in the calculations of these baseline statistics. This third-party evaluator will be procured through an RFP process prior to the onset of work. In terms of tools, the EMR will be the primary data system used to track and report results.

Metric	Analysis (Data Platform)	Expected Outcome
<b>Hypothesis A:</b> On-demand dispatch software will increase service utilization and integrated care across all Harbor Care’s service offerings and facilitate specialty care.		
Completed referrals (across all domains)	Statistical comparison of referrals by type and delivery method (Scheduling Platform)	Greater completed referrals compared to baseline (across all domains)
Patients accessing multiple services	Statistical comparison of rates of patients accessing multiple service lines	Greater rates of patients with multiple services compared to 2021 baseline
Hybrid care teams	Statistical comparison of rates of patients seen at least once by multiple providers simultaneously	Greater rate of patients accessing a hybrid care team compared to 2021 baseline
Wait times for service connection	Statistical comparison of wait time by service and delivery method (Scheduling Platform)	Reduced wait times compared to baseline (established based on 2021 data)
<b>Hypothesis B:</b> Care and supports facilitated by dispatch software will improve health outcomes, enabling a high level of virtual integrated care.		
Treatment plan adherence	Statistical comparison of rates of treatment plan adherence	Greater adherence among patients compared to baseline (2021 or via sub group)
Clinical outcomes	Statistical comparison of CQM pertaining to chronic disease management, screenings, and preventative care	Greater clinical outcomes among patients compared to baseline (2021 or via sub group)
<b>Hypothesis C:</b> Virtual access points will increase service utilization, referrals, and completed referrals across all Harbor Care’s service offerings and specialty care.		
No show rates	Statistical comparison of no-show rates by type and delivery method (EMR)	Reduction in percentage of patients with 0-2 no-show visits

Telehealth treatment engagement	Statistical comparison of rates of telehealth/hybrid patients by type and delivery method (EMR)	Sustained increase in the percentage of telehealth patients at 30, 60, 90 days and one year post implementation compared to baseline
Encounters per patient	Statistical comparison of encounter rates by type and delivery method (EMR)	Increased encounter rates (segmented by service type) among clients with at least one telehealth visit
<b>Hypothesis D:</b> Increased and more integrated care and supports facilitated by virtual access points will improve health outcomes.		
Treatment plan adherence	Statistical comparison of rates of treatment plan adherence	Greater adherence among patients compared to baseline
Clinical outcomes	Statistical comparison of CQM pertaining to chronic disease management, screenings, and preventative care	Greater clinical outcomes among patients compared to baseline
Emergency Service Utilization	Statistical year-over-year comparisons among clients in group homes of emergency room utilization	Reduced emergency room utilization post-intervention compared to baseline
<b>Quality/Process Metrics</b>		
Patient, provider, and partner satisfaction	Tabulation of response (Client Satisfaction Survey)	% of patients, providers, and partners who report telehealth experience as “positive or mostly positive”
Access point comparison	Statistical comparison of utilization rates of all access points	Quality metrics for monitoring purposes; no outcome hypothesis
Implementation Plan Concordance	Data will be collected, analyzed, and reported to demonstrate the extent to which planned activities are completed (project management software)	Quality metric for monitoring purposes; Minimal deviation from plan desired, though deviations may be appropriate
Change Registrar	Data on change requests, including impact on timeline and costs, will be collected, analyzed and reported (project management software)	Quality metric for monitoring purposes; Minimal deviation from plan, though deviations may be appropriate
Provider Adoption	Data on provider adoption of systems will be collected and analyzed; supervisors address any issues (project management software)	Quality metric for monitoring purposes; Maximal provider adoption, though deviations may be appropriate
Equitable Access	All above metrics will be segmented by key demographic indicators (race, age, poverty level, insurance status, language, disability, etc.) and cross tabulations analyzed for statistically significant disparities (EMR)	Quality metric for monitoring purposes; Minimal disparities between population groups, though deviations may require additional response
<b>Financial Evaluation</b>		
Reimbursement	# of telehealth encounters and claims submitted vs reimbursed (EMR)	Quality metric for monitoring purposes; Maximal reimbursement
Cost of a telehealth visit vs in-person	# of telehealth encounters and claims submitted vs reimbursed (EMR)	Quality metric for monitoring purposes; Reduced cost for telehealth visits

**3. Describe how you will maximize your investment in OVC collaborative learning and evaluation activities, including how you anticipate contributing to other health centers’ progress and how you will leverage your engagement to inform and evolve your project, leading to sustainability of successful innovations across the health center community.**

The OVC collaborative will complement Harbor Care’s thorough quality monitoring and improvement initiatives. To properly monitor and evaluate all clinical and process indicators, Harbor Care will create 1) an internal evaluation team, 2) hire a third-party evaluator, and 3) develop monthly and quarterly briefs on program status. The OVC Collaborative will benefit each of these components.

For internal monitoring, Harbor Care will designate a team outside of the core service delivery team, which will include members of our Compliance Department, QI staff, and program staff of all affected programs (e.g., housing and patient navigation). The QI Director and Senior Data Analyst, working with the Program Manager, will lead the process of data collection and the utilization of the data to manage, monitor, and enhance the program, in conjunction with the EMR QI Program Analyst. This team will appoint representation, including the project manager and a QI representative, to engage with the OVC collaborative through regular reporting and participation in learning activities.

For external monitoring, Harbor Care will initiate a Request for Proposal among potential evaluation partners. Harbor Care has a long history of hiring third-party evaluators for such work. We are currently using third-party evaluator, JSI, to monitor and evaluate the quality and performance of our Homelessness Outreach Program and MERIT, which offers targeted supports to individuals with OUD and/or Methamphetamine Use Disorder. In addition, we are part of a Randomized Controlled Trial with MDRC to evaluate an employment support program among those with substance use disorder. We are also engaged with Coleman associates to improve our telehealth delivery. We will engage the evaluator to assist in establishing baselines for above metrics, monitoring quality, and generating reports. For this project we will prefer an evaluator already engaged with the OVC learning collaborative in some capacity. In addition, we will rely on the chosen evaluators for generating regular third-party reports to present learnings to the collaborative, inclusive of all relevant metrics.

## SUPPORT REQUESTED

### Corresponds to Section V.1

#### Review Criterion 5: SUPPORT REQUESTED

- 1. Provide a consistent budget presentation (i.e., SF-424A, Budget Narrative with personnel table, Equipment List if applicable) that aligns with the proposed project (as outlined in the RESPONSE section, Attachment 1: Logic Model, and Attachment 2: Work Plan).**

See attached budget and budget narrative.

## ENDNOTES

---

<sup>i</sup> <https://www.nashuanh.gov/DocumentCenter/View/11382/2017-Community-Health-Assessment---Nashua-Region?bidId=>

<sup>ii</sup> <https://nashuanh.gov/DocumentCenter/View/15740/2018-2021-Greater-Nashua-CHIP---Online-Format?bidId=>

<sup>iii</sup> <https://maps.udsmapper.org/map/app.cfm>

<sup>iv</sup> <https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65>

<sup>v</sup> <https://www.sciencedirect-com.proxy.library.upenn.edu/science/article/pii/S0197457221002329?via%3Dihub>

<sup>vi</sup> <https://pubmed.ncbi.nlm.nih.gov/32452816/>

<sup>vii</sup> <https://www.dhhs.nh.gov/dcbcs/bdas/documents/dmi-2020-overview.pdf>

- 
- viii <https://jamanetwork.com/journals/jamapsychiatry/fullarticle/211213>
- ix <https://sites.google.com/site/newhampshiremortgage/limits/hud-median-income-limits>
- x <https://www.nhceh.org/wp-content/uploads/2021/03/2020-State-of-Homelessness-in-NH-Report-Online-Final-compressed-1.pdf>
- xi <https://www.census.gov/housing/hvs/data/rates.html>
- xii [https://www.integration.samhsa.gov/about-us/CIHS\\_Integration\\_Infographic\\_11x8.5\\_printable.pdf](https://www.integration.samhsa.gov/about-us/CIHS_Integration_Infographic_11x8.5_printable.pdf)
- xiii <http://farleyhealthpolicycenter.org/wp-content/uploads/2017/03/Balasubramanian-et-al-2017-Outcomes-of-Integrated-BH-with-PC.pdf>
- xiv <https://healthitanalytics.com/news/integrated-care-delivery-may-bring-better-outcomes-lower-costs>
- xv [https://www.integration.samhsa.gov/about-us/CIHS\\_Integration\\_Infographic\\_11x8.5\\_printable.pdf](https://www.integration.samhsa.gov/about-us/CIHS_Integration_Infographic_11x8.5_printable.pdf)
- xvi <http://farleyhealthpolicycenter.org/wp-content/uploads/2017/03/Balasubramanian-et-al-2017-Outcomes-of-Integrated-BH-with-PC.pdf>
- xvii <https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-017-2046-9>
- xviii <https://nhchc.org/wp-content/uploads/2020/08/Telehealth-Case-Studies-Report-SemiFinalJD.pdf>
- xix <https://pubmed.ncbi.nlm.nih.gov/28670708/>
- xx <https://www.tandfonline.com/doi/full/10.1080/01944360701821618>
- xxi <https://www.ncbi.nlm.nih.gov/portal/utils/pageresolver.fcgi?recordid=610ec24adf3e2667c48c337d>
- xxii <https://pubmed.ncbi.nlm.nih.gov/32597993/>
- xxiii <https://pubmed.ncbi.nlm.nih.gov/25046280/>
- xxiv <https://pubmed.ncbi.nlm.nih.gov/34027612/>
- xxv <https://www.healthaffairs.org/doi/10.1377/hlthaff.2017.1087>
- xxvi <https://www.rrh.org.au/journal/article/4045>
- xxvii <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-019-4815-5>
- xxviii <https://www.sciencedirect.com/science/article/abs/pii/S0049017216300658?via%3Dihub>
- xxix <https://www.sciencedirect.com/science/article/abs/pii/S0049017216300658?via%3Dihub>
- xxx <https://pubmed.ncbi.nlm.nih.gov/32433364/>
- xxxi <https://pubmed.ncbi.nlm.nih.gov/32194457/>
- xxxii <https://www.liebertpub.com/doi/full/10.1089/tmj.2021.0127>
- xxxiii <https://pubmed.ncbi.nlm.nih.gov/33138622/>
- xxxiv <https://pubmed.ncbi.nlm.nih.gov/32433364/>
- xxxv <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8141357/>
- xxxvi <https://www.pcpcc.org/resource/addressing-social-determinants-health-within-patient-centered-medical-home>
- xxxvii <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-018-2889-0>
- xxxviii [https://www.rand.org/pubs/research\\_reports/RRA100-1.html](https://www.rand.org/pubs/research_reports/RRA100-1.html)