**Hospital Application**

**Please note this hospital application is in a draft form pending feedback from our community based organizations and community as a whole. UCHealth has selected 10 quality measures across the system, and this hospital application is reflective of the entire UCHealth system. Please note which quality measures are assigned (green X is an assigned measure, and red box is not an assigned measure) to the following UCHealth hospitals participating in Hospital Transformation Program. Thank you for your time in reviewing our application and providing feedback as you see fit.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hospital Name | SW-RAH1 | RAH1 | RAH4 | SW-CP1 | SW-BH1 | SW-BH3 | BH1 | SW-COE1 | COE1 | SW-PH1 |
| Grandview |  |  |  | X | X | X | X |  | X | X |
| Pikes Peak |  |  |  | X | X | X | X |  | X | X |
| Yampa Valley Medical Center | X |  |  | X | X | X | X | X | X | X |
| Broomfield | X |  |  | X | X | X | X | X | X | X |
| Highlands Ranch | X |  | X | X | X | X |  | X | X | X |
| Greeley | X |  |  | X | X | X | X | X | X | X |
| Longs Peak | X |  | X | X | X | X |  | X | X | X |
| Poudre Valley Hospital | X | X | X | X | X | X | X | X | X | X |
| Medical Center of the Rockies | X | X | X | X | X | X | X | X | X | X |
| Memorial (North and Central locations) | X | X | X | X | X | X | X | X | X | X |
| University | X | X | X | X | X | X | X | X | X | X |

**Please see a crosswalk of the quality measure name, description and associated focus area for more details.**

|  |  |
| --- | --- |
| Focus Area | Quality Measure |
| Reducing Avoidable Hospital Utilization for High Utilizers | SW-RAH1: 30-day All-Cause Risk Adjusted Hospital Readmission |
| Reducing Avoidable Hospital Utilization for High Utilizers | RAH1 - Connection to primary care medical providers (PCMP) prior to discharge and initial appointment scheduled and notification to the RAE |
| Reducing Avoidable Hospital Utilization for High Utilizers | RAH4 - Percentage of patients with ischemic stroke who are discharged on statin medication |
| Vulnerable Populations | SW-VP1 - Social Determinants of Health screening and notification |
| Behavioral Health & SUD | SW-BH1 - Development of a collaborative discharge planning or notification process with the appropriate RAE’s for eligible patients with a diagnosis of mental illness or substance use disorder (SUD) discharged from the hospital or emergency department |
| Behavioral Health & SUD | SW-BH3 - Using Alternatives to Opioids (ALTO's) in hospital emergency departments (ED’s); Decrease use of opioids and Increase ALTO’s |
| Behavioral Health & SUD | BH1 – Screening, Brief Intervention, Referral and Treatment (SBIRT) in the emergency department (ED) |
| Clinical & Operational Efficiencies | SW-COE1 - Hospital Index |
| Clinical & Operational Efficiencies | COE1 - Increase the successful transmission of a transition record, such as an ADT notification, to a patient’s primary care physician (PCP) or other healthcare professional within 24 hours of discharge from an inpatient facility |
| Community Development Efforts to Address Population Health & Total Cost of Care | SW-PH1 - Severity Adjusted Length of Stay (LOS) |
| Total Point Value of all quality measures | All Measures |

**SW-RAH1: 30-day readmission**

1. **Name of Intervention:** Readmissions Reduction Program
2. **Measure Selection:** SW-RAH1: 30-day All-Cause Risk Adjusted Hospital Readmission
3. **Intervention Description & Rationale**

**Intervention Description components:**

1. **Brief Name**
2. **Rationale**
3. **Materials (physical/informational used in intervention) and where can it be accessed**
4. **Procedures (activities/processes used in intervention)**
5. **Intervention Provider (who provided intervention): describe expertise, background, specific training**
6. **Modes of Delivery (F2F, phone) of intervention & provided individually vs group**
7. **Location of intervention (infrastructure/features required)**
8. **When and how many times the intervention was delivered (over course of year)**
9. **Intervention tailored (if so, what, why, when, how?)**
10. **Modifications (if modified later, describe): insert standard language**

Intervention Description: The intervention selected to address the 30-day readmission quality measure entails establishing a Readmission Reduction Program (RRP) to address the 30-day All-Cause Risk Adjusted Hospital Readmission Rate for the Medicaid population. The RRP will complete its work through a new RRP Committee (RRPC). The RRPC will be chartered at the UCHealth system level and include representatives of all system entities. The work of the RRPC will be executed at the system or local hospital level, as appropriate.

We will take a three-step approach to build a program to address readmissions: governance, structure and process. The first step, or governance phase, will consist of charter creation, stakeholder engagement and committee empanelment. Specifically, the UCHealth Chief Quality Officer will craft the Readmission Reduction Program Committee (RRPC) charter to formally authorize the existence and provide a reference source for the future. The charter will provide direction and a sense of purpose to the chairperson and the committee members. The RRPC will have executive sponsorship by the UCHealth Chief Quality Officer reporting through the UCHealth Senior Executive Group to the UCHealth Board of Directors. Reporting to the Board of Directors is an evidence-based core principle of high-functioning quality improvement initiatives and felt to be paramount to the success of this program (1, 2, 3).

The second step, or structure phase, will create the structure for management of the program. This will start with convening the RRPC, which will include members from all UCHealth entities. The RRPC will be provided readmission data from sources consisting of Vizient, a national collaboration of health systems and hospitals to share data for the purposes of performance improvement, Epic, and claims-based data provided by Health Care Policy and Financing (4). The RRPC will review the data by payer, specifically highlighting the Medicaid population. The diagnoses and procedures with the highest rate of readmissions will be prioritized. ]

The third step, or process phase, will involve creating the process for driving change. The RRPC will identify the key drivers of performance and create task forces for each core tactic. Understanding our current state and performing a gap analysis based upon the drivers will allow UCHealth to develop a driver diagram. A driver diagram is a tool that helps translate a high-level improvement goal into a logical set of underpinning goals. It captures an entire change program in a single diagram and provides a measurement framework for monitoring progress. A result of the driver diagram is to define a system to improve and the causal variables that drive the outcomes. Clearly defining an aim and its drivers enables a team to have a shared view of the theory of change in a system. Once there is a mutual understanding of the areas of opportunity and drivers, the RRPC will identify the appropriate parties to initiate, plan and implement a quality improvement project utilizing the DMAIC framework for quality improvement. DMAIC is a Six Sigma construct aimed at reducing variability in care. The five steps include **D**efining, **M**easuring and **A**nalyzing the problem, implementing **I**nterventions aimed at improvement and finally, putting the process into a **C**ontrol, or sustain phase (3).

Intervention Rationale: We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we believe there is a possibility in the future to highlight the collaboration among our community partners via data sharing and analytics, evidence-based care coordination and care transitions, and/or chronic care management.

# Citations:

# Hospital Board Oversight of Quality and Patient Safety: A Narrative Review and Synthesis of Recent Empirical Research

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3876189/>

1. How do hospital boards govern for quality improvement? A mixed methods study of 15 organisations in England

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5750431/>

1. Ways to Approach the Quality Improvement Process

<https://www.ahrq.gov/cahps/quality-improvement/improvement-guide/4-approach-qi-process/sect4part2.html>

1. Vizient, Inc. website

<https://www.vizientinc.com/what-we-do>

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

All: The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Of note, while the community did not specifically address readmissions as a core problem, they did note many factors that predict readmissions, such as limited access to primary care services, limited availability of long-term care facilities that accept patients with behavioral health conditions, opportunities to improve care coordination for chronic diseases, homelessness and transportation limitations, food insecurity, high-prevalence of opioid and other substance use disorders and lack of Medication Assisted Treatment (MAT) programs. Our interventions will likely aim to address these core needs of the community and the Medicaid population we serve.

**University of Colorado-Anschutz Medical Campus (UCH-AMC)** is a large academic medical center located in the city of Aurora.  These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For example, of all patients who utilized UCH-AMC, those with Medicaid insurance were nearly 5 times more likely to use the hospital for schizophrenia or psychotic disorder treatment. Furthermore, 9.4% of adults ages 18 years and older in the Denver metro area reported binge drinking in the past 30 days,’ compared to the three hospital service area counties: Adams (17.2%), Arapahoe (17.4%), and Denver (25.6%). Alcohol abuse ranks in the top five reasons for an Emergency Department visit.  The most prevalent chronic diseases of Medicaid high utilizers at UCH-AMC were substance use disorders, with alcohol use disorder being the second most common ED diagnosis. Partners shared concerns that alcohol was a significant health challenge for many individuals, including the HTP priority populations. The most common reason for ED use by homeless individuals with Medicaid were alcohol related disorders, followed by suicidal ideation or attempt, and substance disorders.  At last, most community partners identified gaps in the current complex care management and care coordination services.

Community partners described how low-income populations in the metro area struggle with food insecurity and its impacts on poor health outcomes. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. There are some community resources and services available to meet patients’ nutritional needs. This may include organizations like Hunger Free Colorado available to enroll patients in SNAP or WIC. Others also referenced home-delivered meals that may be available through non-profit organizations such as Project Angel Heart or meals-on-wheels. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. The overall lack of affordable housing in the metro area, including limited apartment capacity, was identified as especially acute for low-income Medicaid enrollees. Partners see people moving around frequently, which impacts whether and how they access care. This involuntary displacement may also negatively impact behavioral health. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort.

**UCHealth Highlands Ranch Hospital**encompasses the geographical area which includes Douglas County and Jefferson County residents. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For example, both Douglas and Jefferson counties had higher rates of depression (17.7% and 18.8%, respectively), whereas Douglas had lower rates of anxiety (13.6%) and Jefferson had higher rates of anxiety (16.5%) when compared with the state of Colorado. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

A little over half of the respondents indicated that Douglas County did not have adequate transportation options to meet the needs of low-income residents. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Pilot programs that connect individuals to ride-sharing programs such as Uber or Lyft were mentioned by a few partners as another promising strategy, especially for less-mobile populations. Subsequently, areas of opportunity indicated were 1 in 10 Jefferson County residents were food insecure in 2017. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort. Please note, due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

**UCHealth Broomfield Hospital**serves the geographical areas of Jefferson and Broomfield Counties including parts of the Denver Metro area. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations.  For example, of the total patients who utilized UCHealth Broomfield Hospital, those with Medicaid insurance were 3.4 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that had commercial insurance. Medicaid patients were 10.3 times more likely to use the hospital for suicidal ideation or attempt, when compared to patients with commercial insurance. Of all Medicaid ED high utilizers, 16% had one or more mental health disorders, a percentage had alcohol use disorder, and 5.1% had opioid use disorder. Most partners shared that behavioral health services are limited – although one partner shared that even when service capacity is increased, it is quickly filled, suggesting there may never be enough services to meet demand. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

The ability to connect these social and medical services and data across different organizations to avoid duplication and provide seamless care to patients is an identified gap highlighted in the CHNE. While they may not have all the needed paperwork to complete applications for programs like SNAP or WIC, meeting someone face-to-face to discuss a program, get accurate contact information, and initiate a process was identified as a critical step in connecting people with services. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort.

**UCHealth Longs Peak Hospital**encompasses the geographical area which includes Boulder and Weld counties. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. In total, 41.4% and 37.2% of all its hospital users resided in Weld County and Boulder County, respectively.  Of patients who utilized UCHealth Longs Peak Hospital, those with Medicaid insurance were 2.5 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. One percent of all encounters for UCHealth Longs Peak Hospital users were for suicide ideation or attempt. Four percent of individuals with one more mental health disorders used UCHealth Longs Peak Hospital for suicide ideation or attempt. Of all patients who utilized UCHealth Longs Peak Hospital, a similar number of Medicaid and commercially insured patients used the hospital because they felt suicidal or committed a suicidal attempt. Of all patients who presented to the emergency department with a suicide attempt, 12 (6%) had to be admitted to the hospital to receive medical care to treat the effects of an overdose. Among all Medicaid ED high utilizers, 24.4% had one or more mental health disorders, 8.9% had alcohol use disorder, and 3.1% had opioid use disorder. There is a surplus of mental health providers in Boulder County, but a shortage in Weld County. However, it is unclear how many Boulder County behavioral health providers accept new patients with Medicaid.

Residents and community organizations of Weld and Boulder counties noted that transportation is a challenge for Medicaid enrollees. Both counties are spread out with health centers and the hospital being centrally located. Public transportation from more remote locations to and from health centers is scarce. Transportation is a primary barrier in accessing health and social resources in Boulder and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. Lack of timely Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort.

**UCHealth Memorial Hospital** users reside in El Paso County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care access. For example, there is a shortage of primary care providers in El Paso County. For every primary care provider, there are 1,650 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. Furthermore, El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively). The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000). El Paso County has higher rates of alcohol-impaired driving deaths (42%) compared to 34% in the state of Colorado. However, excessive drinking rates (18%) are lower to those in the state of Colorado (21%). Almost 80% of all high health care utilizers also had chronic mental health or substance use disorder.  Of all the patients who utilized UCHealth Memorial Hospital, those with Medicaid insurance were 8.3 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, those with Medicaid insurance were 3.5 times more likely to use the hospital for suicidal ideation or attempt.

The community faces challenges due to geographic sprawl such as limited transportation options and employment opportunities. Affordable housing and lack of population density to support businesses and public services are community needs identified by the local public health agency. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., housing).

In our interviews with home health agency partners, many mentioned home health agencies being unable to get orders signed by the Medicaid member’s primary care provider. This leads to one post-hospital visit by the home health agency, but no future visits can be made until orders are signed. This is often the reason for return visits and re-admissions in this patient population. The home health agencies were unaware that the RAE could provide care coordination and facilitate primary care providers to home health agency communications. Colorado Springs has a program called Community Assistance, Referral and Education Services (CARES) that target high utilizers of the 911 call system. The program identifies high utilizers and provides them with chronic disease management education, low acuity medical response, proper medical facility navigation and follow up with hospital and emergency department discharge plans. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort.

**UCHealth Yampa Valley Medical Center** is a rural hospital located in Routt County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For instance, alcohol-related disorders were identified as the top substance use disorder in our hospital service area, accounting for 55% of all visits for those who have one or more substance use disorder co-morbidity. Alcohol abuse and dependence diagnostic code was the leading cause of hospital admissions for several Medicaid members with chronic conditions. In evaluating Yampa Valley Medical Center’s electronic health record data, Medicaid individuals with a mental health disorder utilized the hospital most commonly for alcohol-related disorders, mood disorders, and anxiety disorders. The alcohol related disorders were the primary reason for hospital admission for Medicaid members with mental health disorders. Mood disorders were the primary reason for Medicaid members with mental health disorders utilizing the ED. Medicaid members who used Yampa Valley Medical Center had one or more mental health disorders and accounted for 179 visits over a period of six months.  Routt County has lower rates of depression (12.8%) and anxiety (1.9%) when compared with the state of Colorado (18.4% and 16.4% respectively). In assessing the UCHealth electronic health record, we found that approximately 8.6% of all Yampa Valley Medical Center Medicaid covered visits were for individuals with one or more substance use disorders. Alcohol related disorders are the 4th and 8th leading cause of emergency department utilization for those with Medicaid insurance and all payers. Several community stakeholders mentioned there is poor access to limited mental health and substance use disorder services for those who live in Routt County. There are currently no detoxification centers available for Routt County residents with Medicaid insurance. Furthermore, Northwest Colorado Health provides home health services to all Routt County residents. In conversations with members of Northwest Colorado Health, 30-day hospital re-admission rates for Medicaid members receiving home health services are high. Reasons for these high re-admission rates included complex patient population and high social needs.

Approximately, 18% of all 2019 CHNE respondents mentioned having lack of access to housing. Transportation is a major barrier, both for inter-facility transportation, as well as for Routt County residents to get to and from appointments. Gaps in primary care access are related to transportation and distance from the Medicaid enrollee's home and the PCMH. Furthermore, food insecurity came up in several conversations with community organizations. We identified community organizations that provide food delivery or food pantry services to Routt County residents. Many of those organizations are supported via donations and grants. We were unable to identify a meals-on-wheels program. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort.

**UCHealth Medical Center of the Rockies** encompasses the geographical area which includes Weld and Larimer Counties. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care providers. Weld County has a shortage of primary care providers. For every primary care provider, there are 2,030 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. There is a high number of homeless individuals in Larimer and Weld County, yet homeless services are lacking. Also, Larimer County and Weld County have high rates of residents with mental health and substance use disorders.  The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness.  Of all patients who utilized UCHealth Medical Center of the Rockies, those with Medicaid insurance were 2.6 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, this population is 1.2 times more likely to use the hospital for suicidal ideation or attempt. Nearly 12 percent of all patients using UCHealth Medical Center of the Rockies hospital had one or more mental health diagnoses. The top reasons for hospital visits for high utilizers were substance-related disorders and abdominal pain. According to the UCHealth Medical Center of the Rockies, mental health and substance use disorder services are the top required specialties in Larimer County. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort.

**UCHealth Poudre Valley Hospital** is a community hospital that serves Larimer County and Weld County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. Larimer and Weld county have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Poudre Valley Hospital, those with Medicaid insurance were two times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. The top diagnosis associated with hospital use by Medicaid high utilizers at UCHealth Poudre Valley Hospital was alcohol-related disorders. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Community organizations stressed the need for mental health and substance use disorder services.

Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort.

**UCHealth Greeley Hospital** encompasses the geographical area which includes Weld County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. Weld County has a shortage of primary care providers. For every primary care provider, there were 2,030 residents. Most primary care attribution comes from Weld County, where 15 of the 33 primary care practices see Medicaid members. Furthermore, Weld County has high rates of residents with mental health and substance use disorders. The top patient avoidable care episodes of care were for substance use disorders. Psychiatry services utilize telehealth for inpatient psychiatric consultations. For every mental health provider in in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

Weld County residents articulated that the four most common themes when asked what ways will enable a healthier place to live, work, and play and the social need was indicated as the following: Transportation (329 responses; 25.3%). Transportation is the main barrier to accessing health and social resources in Weld County. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Many mentioned needs related to addressing social determinants of health including, transportation, food insecurity, and DME access were items that care coordinators could support patients when making appointments with specialty providers. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort. Please note, due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

All: Our preliminary resources to be leveraged to establish the governance, structural and process for reducing readmissions will draw from our current leadership and governance models, our experience creating and executing committees and our internal data and process improvement resources. Once we engage in the process improvement phase, we are likely to utilize both medical and social resources to address the local community needs. Namely, chronic disease management, behavioral health conditions, substance use disorders, homelessness and transportation limitations.

**5: Evidence Base intervention: Select One**

1. **Randomized Control Trial (RCT) level evidence**
2. **Best practice supported by less than RCT evidence**
3. **Emerging practice**
4. **No evidence**

(3) Best practice supported by less than RCT evidence base

The evidence base intervention selected entails building a governance structure overseeing readmissions, empowering a committee, reviewing data, identifying drivers of change and implementing local teams to adopt the change. This process is a well-known approach to driving change. The use of the DMAIC framework of Six Sigma has been used nationally and organizationally to drive change. We will Define and Measure our patient population and readmissions outcomes, Analyze our data, implement to Improve change and once improvements are made, put the projects into the **C**ontrol phase. This process will allow us to drive down readmissions for the Medicaid patients we serve.

Citations:

# 1) Hospital Board Oversight of Quality and Patient Safety: A Narrative Review and Synthesis of Recent Empirical Research

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3876189/>

2) How do hospital boards govern for quality improvement? A mixed methods study of 15 organisations in England

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3) Ways to Approach the Quality Improvement Process

<https://www.ahrq.gov/cahps/quality-improvement/improvement-guide/4-approach-qi-process/sect4part2.html>

4) Vizient, Inc. website

<https://www.vizientinc.com/what-we-do>

**6: Intersection with Statewide Initiatives** Yes

* **If yes, select from list:**
  + [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
  + [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
  + [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
  + [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
  + [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
  + [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
  + Rx Tool
  + [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
  + [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
  + [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
  + [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
  + Crisis Intervention
  + [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
  + Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Affordability Road Map
* Accountable Care Collaborative (ACC) Phase II
* Primary Care Payment Reform

Health Care Policy & Finance enabled hospitals to organically align with the aforementioned statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the long run without compromising quality healthcare. Ideally, that partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

The Alternative Payment Model for Primary Care (APM) is part of the Department’s efforts to shift from paying for volume to paying for value across the entire delivery system. The APM is designed to support primary care providers through this shift. The Department, in close collaboration with stakeholders, has developed three goals for the APM: provide long-term, sustainable investments in primary care; reward performance and introduce accountability for outcomes and access to care while granting flexibility of choice to providers, and; align with other payment reforms across the delivery system. We believe one of APM’s goals is to align with other payment reforms including the HTP. Also, both programs have a focus on reducing hospital utilization via the improvement of readmission rates.

**7: Intervention Historical Experience**

**Consider the following:**

* **Does UCHealth or affiliated community partner have experience with intervention and/or core population?**
* **If so, how does the experience support the success of the intervention?**

**Experience**: UCHealth has experience utilizing governance structures to improve performance using the DMAIC framework. However, we have not used this intervention to directly impact the readmission rates of Medicaid patients. Our prior experience with this framework will enhance the likelihood of success with this important initiative.

**8: Existing Intervention Rationale**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

**Not Existing:** This intervention in this population is not already in existence; hence the remaining portion of this question is not applicable. No response is required in section B.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** No

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| N/A | N/A | N/A | N/A |

**RAH1: PCP Appointment Prior to Discharge**

**Percentage of Medicaid patients discharged from an inpatient admission to home with a documented follow up appointment with a clinician and notification to the RAE within one business day.**

1. **Name of Intervention:** PCP Appointment Prior to Discharge

**2. Measure Selection:** RAH1 - Connection to primary care medical providers (PCMP) prior to discharge and initial appointment scheduled and notification to the RAE

**3: Intervention Description & Rationale**

**Intervention Description components:**

1. **Brief Name**
2. **Rationale**
3. **Materials (physical/informational used in intervention) and where can it be accessed**
4. **Procedures (activities/processes used in intervention)**
5. **Intervention Provider (who provided intervention): describe expertise, background, specific training**
6. **Modes of Delivery (F2F, phone) of intervention & provided individually vs group**
7. **Location of intervention (infrastructure/features required)**
8. **When and how many times the intervention was delivered (over course of year)**
9. **Intervention tailored (if so, what, why, when, how?)**
10. **Modifications (if modified later, describe): insert standard language**

Intervention Description: The intervention selected to address the PCP appointment prior to discharge quality measure entails a connection to primary care provider (PCP) prior to discharge via an initial appointment scheduled as well as a notification sent to the Regional Accountable Entity (RAE). A technical effort to enhance the PCP information articulated within Epic, UCHealth’s electronic medical record is critical to ensure a higher quality of the appointments we schedule. Our anticipated ability to pull attributed PCP at the time of registration/insurance verification in conjunction with the ability to confirm this information with patient will complement one another and enhance the quality of care. For the Medicaid population, we expect to integrate the RAE’s attributed PCP information within Epic. Hence, we will be able to better capture the information that is important for transitions of care in a way that everyone can see. There are financial benefits that we anticipate based on this technical effort and include the ability to address the HTP quality measure at hand in addition to reducing readmissions. We believe we will naturally decrease the risk of HIPAA violation as well. Several employee and patient benefits alike are demonstrated through improved transitions of care and efficiency of the processes including not having to search the portal for the PCP detail and a decrease in manually updating of PCP field.

The best practice to accomplish this work is a discussion with the patient and/or caregiver prior to discharge to set up the appointment. Inclusion of the patient in the identification of date and time of the follow-up appointment supports not only patient centered care but increases the likelihood of adherence to the appointment. Additionally, the ability for the hospital staff to utilize technology to access schedules is most desirable for efficient practice.

UCH Only: UCHealth’s University of Colorado-Anschutz Medical Campus and STRIDE will continue to collaborate to create the role of an embedded STRIDE Complex Care Coordinator who meets with patients, schedules them into a STRIDE heath center, and provides additional resources. STRIDE is a community health center who provides clinical services across primary care settings including physical examinations, well child visits, immunizations, chronic disease management, family planning, limited pharmacy and laboratory support, and referral to outside services.

MHS Only:

UCHealth Memorial Hospital and Peak Vista will continue to collaborate in order to deliver timely primary care follow up by scheduling patients into a Peak Vista community health center and provide additional resources. Peak Vista Community Health Centers is a nonprofit Federally Qualified Health Center dedicated to providing exceptional medical and dental care that incorporates behavioral health services in a collaborative team setting for people of all ages. They proudly serve over 94,000 patients through 27 outpatient centers in Colorado's Pikes Peak and East Central regions.

Intervention Rationale: We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we are highlighting the collaboration among our anticipated community partners via data sharing and analytics, evidence-based care coordination and care transitions, chronic care management, and community-based population health and disparities reduction efforts.

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

All: The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Of note, while the community did not specifically address PCP follow-up as a core problem, they did note many factors that predict readmissions which could be an outcome of improving the number of PCP follow-up appointments scheduled prior to discharge. These factors entail the following: limited access to primary care services, limited availability of long-term care facilities that accept patients with behavioral health conditions, opportunities to improve care coordination for chronic diseases, homelessness and transportation limitations, food insecurity, high-prevalence of opioid and other substance use disorders and lack of Medication Assisted Treatment (MAT) programs. Our interventions will likely aim to address these core needs of the community and the Medicaid population we serve.

**University of Colorado-Anschutz Medical Campus (UCH-AMC)** is a large academic medical center located in the city of Aurora. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For example, of all patients who utilized UCH-AMC, those with Medicaid insurance were nearly 5 times more likely to use the hospital for schizophrenia or psychotic disorder treatment. Furthermore, 9.4% of adults ages 18 years and older in the Denver metro area reported binge drinking in the past 30 days,’ compared to the three hospital service area counties: Adams (17.2%), Arapahoe (17.4%), and Denver (25.6%). Alcohol abuse ranks in the top five reasons for an Emergency Department visit. The most prevalent chronic diseases of Medicaid high utilizers at UCH-AMC were substance use disorders, with alcohol use disorder being the second most common ED diagnosis. Partners shared concerns that alcohol was a significant health challenge for many individuals, including the HTP priority populations. The most common reason for ED use by homeless individuals with Medicaid were alcohol related disorders, followed by suicidal ideation or attempt, and substance disorders. At last, most community partners identified gaps in the current complex care management and care coordination services. Addressing these psychosocial needs will be paramount to reducing readmissions in this cohort.

Community partners described how low-income populations in the metro area struggle with food insecurity and its impacts on poor health outcomes. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. There are some community resources and services available to meet patients’ nutritional needs. This may include organizations like Hunger Free Colorado available to enroll patients in SNAP or WIC. Others also referenced home-delivered meals that may be available through non-profit organizations such as Project Angel Heart or meals-on-wheels. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. The overall lack of affordable housing in the metro area, including limited apartment capacity, was identified as especially acute for low-income Medicaid enrollees. Partners see people moving around frequently, which impacts whether and how they access care. This involuntary displacement may also negatively impact behavioral health. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs.

**UCHealth Memorial Hospital** users reside in El Paso County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care access. For example, there is a shortage of primary care providers in El Paso County. For every primary care provider, there are 1,650 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. Furthermore, El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively). The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000). El Paso County has higher rates of alcohol-impaired driving deaths (42%) compared to 34% in the state of Colorado. However, excessive drinking rates (18%) are lower to those in the state of Colorado (21%). Almost 80% of all high health care utilizers also had chronic mental health or substance use disorder. Of all the patients who utilized UCHealth Memorial Hospital, those with Medicaid insurance were 8.3 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, those with Medicaid insurance were 3.5 times more likely to use the hospital for suicidal ideation or attempt. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

The community faces challenges due to geographic sprawl such as limited transportation options and employment opportunities. Affordable housing and lack of population density to support businesses and public services are community needs identified by the local public health agency. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., housing).

In our interviews with home health agency partners, many mentioned home health agencies being unable to get orders signed by the Medicaid member’s primary care provider. This leads to one post-hospital visit by the home health agency, but no future visits can be made until orders are signed. This is often the reason for return visits and re-admissions in this patient population. The home health agencies were unaware that the RAE could provide care coordination and facilitate primary care providers to home health agency communications. Colorado Springs has a program called Community Assistance, Referral and Education Services (CARES) that target high utilizers of the 911 call system. The program identifies high utilizers and provides them with chronic disease management education, low acuity medical response, proper medical facility navigation and follow up with hospital and emergency department discharge plans

**UCHealth Medical Center of the Rockies** encompasses the geographical area which includes Weld and Larimer Counties. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care providers. Weld County has a shortage of primary care providers. For every primary care provider, there are 2,030 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. There is a high number of homeless individuals in Larimer and Weld County, yet homeless services are lacking. Also, Larimer County and Weld County have high rates of residents with mental health and substance use disorders. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Medical Center of the Rockies, those with Medicaid insurance were 2.6 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, this population is 1.2 times more likely to use the hospital for suicidal ideation or attempt. Nearly 12 percent of all patients using UCHealth Medical Center of the Rockies hospital had one or more mental health diagnoses. The top reasons for hospital visits for high utilizers were substance-related disorders and abdominal pain. According to the UCHealth Medical Center of the Rockies, mental health and substance use disorder services are the top required specialties in Larimer County. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department.

**UCHealth Poudre Valley Hospital** is a community hospital that serves Larimer County and Weld County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. Larimer and Weld county have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Poudre Valley Hospital, those with Medicaid insurance were two times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. The top diagnosis associated with hospital use by Medicaid high utilizers at UCHealth Poudre Valley Hospital was alcohol-related disorders. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Community organizations stressed the need for mental health and substance use disorder services. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department.

All: Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. Namely, chronic disease management, behavioral health conditions, substance use disorders, homelessness and transportation limitations. Furthermore, the Regional Accountable Entities and Federally Qualified Health Centers will be critical in addressing the quality measure via our proposed intervention.

More information on this partnership is in question 9 of the hospital application document.

**5: Evidence Base intervention: Select One**

1. **Randomized Control Trial (RCT) level evidence**
2. **Best practice supported by less than RCT evidence**
3. **Emerging practice**
4. **No evidence**

(3) Emerging Practice

The evidence base intervention selected entails examining how improved scheduling of follow up appointments pre-discharge impacted readmission rates in a patient population who was admitted to the hospital. For instance, an urban tertiary care center developed a post-discharge appointment program in 2009. This program facilitated PCP and specialty follow up prior to hospital discharge. The providers were part of their health network. The attending physician placed an order on the day of discharge for follow up and the team scheduled appointments without input from the patient. The data was collected from 2008 prior to the initiation of the program and continued until 2015. They estimated that the scheduling of an appointment prior to discharge increased the likelihood of patients attending a 7-day appointment by 33.4%. They also associated the appointment follow up with a 2.5% reduction of readmissions and a 4.8% reduction of a 30-day Emergency Department visit (3).

From 2015-2016 in a single private hospital 578 patients where included in the study and focused on acute coronary syndrome or heart failure. During the time of their study they were able to increase the percentage of patients who received a follow up appointment prior to discharge (45.6% vs. 75.4%, p<0.001). They found the readmission rate was comparable before and after their intervention (8.6% vs. 9.7%), but they also found that the specific patients that had an appointment scheduled prior to discharge had 0.374 times lower odds of being readmitted (p=0.004) (1).

Furthermore, a cohort study was conducted at an urban 425 bed tertiary care center. Sixty-five patients were enrolled to determine PCP follow up and readmission status outcomes with post-discharge phone calls. The rate of timely PCP follow was 49%. Thirty-day readmission rate for the same medical condition was significantly higher in patients without timely PCP appointments compared to timely PCP follow-ups (21.2% vs. 3.1%, *P* = 0.05) (2). We believe this intervention will address the quality measure because it began to demonstrate that patients who do have a follow up appointment scheduled prior to discharge have lower odds of being readmitted.

To view more information regarding this intervention, please see link referenced as follows:

1. <https://www.sciencedirect.com/science/article/pii/S0167527317337300?via%3Dihub>
2. <https://onlinelibrary.wiley.com/doi/full/10.1002/jhm.666>
3. <https://www.journalofhospitalmedicine.com/jhospmed/article/208121/hospital-medicine/does-scheduling-postdischarge-visit-primary-care-physician>

**6: Intersection with Statewide Initiatives**

* Yes
* **If yes, select from list:**
  + [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
  + [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
  + [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
  + [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
  + [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
  + [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
  + Rx Tool
  + [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
  + [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
  + [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
  + [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
  + Crisis Intervention
  + [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
  + Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Affordability Road Map
* IT Road Map
* Accountable Care Collaborative (ACC) Phase II

Health Care Policy & Finance enabled hospitals to organically align with the aforementioned statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II and the ability to partner with the Regional Accountable Entities (RAEs) as it highlights this opportunity to notify the RAE across multiple quality measures. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the long run without compromising quality healthcare. Ideally, that partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

Additionally, there are 16 initiatives recommended in the IT Roadmap and they provide guidance for Coloradan’s health IT efforts in the future. When implemented, the results of the initiatives will provide an expanded, more robust foundation supporting Colorado achieving its health reform goals. There are six domains in which these initiatives fall under and encompass the following: stakeholder engagement, governance, resources/financial, privacy and security, innovation, and technology. The initiative that resonates most with this quality measure falls under the governance domain and entails the ability to harmonize and advance data sharing and health information exchange capabilities across Colorado. As a part of the quality measure description, UCHealth intends on sharing data by notifying the RAE of the activity.

**7: Intervention Historical Experience**

**Consider the following:**

* **Does UCHealth or affiliated community partner have experience with intervention and/or core population?**
* **If so, how does the experience support the success of the intervention?**

**All:** UCHealth and our affiliated community partner(s) have experience with this particular intervention which should support the success of this proposed enhanced intervention. Currently, UCHealth obtains Primary Care Provider (PCP) information directly from patients, which has proven to be erroneous and unreliable at times. Hence, allowing patients to provide their PCP creates a risk for HIPAA violations by faxing information to the inappropriate PCP. Also, we do not have a way to validate the information over time or have a mechanism to prompt users to update the field. In the new world of value-based contracts, insurers are assigning a PCP (I.e. attributed PCP) to be accountable for delivering quality of care to their patients. At this time, we are not capturing this information in Epic, UCHealth’s electronic medical record. Furthermore, we have limited ability to create follow up appointments with the appropriate PCP; hence, decreasing quality of care.

UCH: Currently, we schedule PCP follow up appointments for the Medicaid population. In order to find the most success, we talk to the patient directly to provide them with options prior to scheduling the appointment for the patient. The appropriate documentation occurs in Epic, so the patient’s after visit summary is automatically populated with the follow-up information. Additionally, there is an embedded STRIDE Complex Care Coordinator who meets with patients to support scheduling. This staff member can access STRIDE’s system in order to schedule the patient a follow-up appointment without calling the clinic directly. UCHealth believes this historical experience will support the success of the intervention.

MHS: Currently, we schedule PCP follow up appointments for most Medicaid patients. We work closely with Peak Vista Community Health Center to obtain 7-10 day follow ups, sooner if indicated. We fax a referral to Peak Vista indicting that a follow up appointment is needed and indicate the timeframe needed. Peak Vista calls back with the appointment information and our team places this on the after visit summary. If a patient is attributed by the RAE to another provider, we will attempt to schedule with that provider when possible. We work closely with our Heart Failure Coordinator to ensure all acute heart failure patients receive a 7 day follow up with either their PCP or their cardiologist prior to discharge. UCHealth believes this historical experience will support the success of the intervention.

MCR/PVH: Currently, we schedule PCP follow up appointments for the Medicaid population; however, if the patient is not assigned to the staff member scheduling appointments, then there may be an opportunity to support those patients obtaining follow-up appointments. In order to find the most success, we talk to the patient directly to provide them with options despite limitations in availability. In Northern Colorado, there are several clinics that UCHealth schedules follow-up care with and include, but not limited to, the following: Salud Clinic, Loveland Community Health, Monfort Sunrise Clinic, and Family Medicine Clinic (FMC). When making appointments, we strive to have the patients seen 7-10 days after hospital discharge in order to have timely follow-up care; however, occasionally, the availability is limited and they are booked for a later date due to the patient requiring a longer appointment time slot. At times, we can capitalize on a new physician joining the clinic practice, and we can schedule appointments easier before the schedule is full. Specifically, FMC has a hospital follow up clinic on Wednesdays to we can leverage to support this quality measure. Furthermore, we have found that using the website www.needymeds.org is helpful in finding Medicaid or low-cost clinics across the United States. UCHealth believes this historical experience will support the success of the intervention.

All: Furthermore, the target population had been a prioritized among UCHealth and its affiliated partners and our experience with this priority population will support the success of the intervention. Currently, we understand that transportation limitations could result in a Medicaid patient being hesitant to have an appointment scheduled. To overcome this barrier, we offer transportation resources and education. Also, there are less clinicians that accept Medicaid which often results in patients having a difficult time finding a clinician on their own. By helping a Medicaid patient schedule an appointment while they are still admitted to the hospital, we can remove that barrier to care.

**8: Existing Intervention Rationale**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

**Existing:** UCHealth selected an existing intervention because it is the best approach for meeting the community needs identified in the Community Health Neighborhood Engagement process. This approach is ideal based upon the evidence base documentation which supports this initiative. In order to reduce readmissions and improve the overall quality of care, scheduling appointments with a clinician who has accurate contact information in our electronic medical record is crucial. This existing intervention will be enhanced to meet the HTP goals by integrating the RAE’s attributed PCP information within Epic for the Medicaid population. Our anticipated ability to pull attributed PCP at the time of registration/IVS in conjunction with the ability to confirm this information with patient will complement one another and enhance the quality of care.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** Yes

**If yes, identify partner and provide documentation such as letter of partnership, MOU or BAA.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| STRIDE \*UCH | FQHC | Yes | UCHealth University-AMC & STRIDE collaborate to create the role of an embedded STRIDE complex care coordinator who meets with patients, schedules them into a STRIDE heath center, and provides additional resources. |
| Peak Vista \*MHS | FQHC | Yes | Peak Vista will continue to collaborate with UCHealth Memorial in order to deliver timely primary care follow up by scheduling patients into a Peak Vista community health center and provide additional resources. |

**RAH4: Stroke Discharge on Statin**

**1**: **Name of Intervention:** Stroke Discharge on Statin

**2**: **Measure Selection:** RAH4 - Percentage of patients with ischemic stroke who are discharged on statin medication

**3: Intervention Description & Rationale**

**Intervention Description components:**

1. **Brief Name**
2. **Rationale**
3. **Materials (physical/informational used in intervention) and where can it be accessed**
4. **Procedures (activities/processes used in intervention)**
5. **Intervention Provider (who provided intervention): describe expertise, background, specific training**
6. **Modes of Delivery (F2F, phone) of intervention & provided individually vs group**
7. **Location of intervention (infrastructure/features required)**
8. **When and how many times the intervention was delivered (over course of year)**
9. **Intervention tailored (if so, what, why, when, how?)**
10. **Modifications (if modified later, describe): insert standard language**

**HRH Only:** The intervention selected to address the stroke discharge on statin quality measure entails building a process of oversight and performance improvement to ensure that all patients receive a statin when indicated. Hyperlipidemia is a major risk factor for stroke. Studies have shown that statins have proven efficacy for reducing the risk of recurrent Ischemic stroke. Statins have remained the first line agents to decrease cholesterol and reduce risk of stroke and other cardiovascular diseases. Lipid lowering by other means have not shown significant impact for the secondary prevention of stroke or prevention of other cardiovascular events. The 2019 AHA Clinical Practice Guidelines for secondary prevention of stroke refers back to the 2018 Guideline on the Management of Blood Cholesterol. Under the 2018 guidelines, the goal of therapy for secondary prevention is for LDL-C threshold of less than 70 mg/dL. Adherence to changes in lifestyle and effects of LDL-C lowering medication should be assessed by measurement of fasting lipids and appropriate safety indicators 4 to 12 weeks after statin initiation or dose adjustment and every 3 to 12 months thereafter based on need to assess adherence or safety.

Within the UCHealth stroke facilities that are PSC, we have shown a high compliance with discharging patients who have had an acute ischemic stroke on statins, when indicated. We have been delivering exceptional stroke care following evidence-based guidelines for many years. Hence, UCHealth PSC’s are following order sets and utilizing discharge note templates that are derived from clinical practice guidelines (I.e. evidence-based medicine). Long standing stroke standards of care are key to our success. However, we have not developed a systematic way to measure compliance. For this intervention UCHealth will focus on developing a standardized process for measuring compliance. This intervention requires establishing a Stroke Discharge on Statin (SDS) Committee. The SDS Committee will be chartered at the UCHealth system level and will include representatives of the system entities. The work of the SDS Committee will be executed at the system or local hospital level, as appropriate.

We will take a three-step approach to build a program to address stroke patients being discharged on a statin: governance, structure, and process. The first step, or governance phase, will consist of charter creation, stakeholder engagement, and committee empanelment. Specifically, the senior directors of the stroke programs across UCHealth will craft the SDS Committee charter to formally authorize the existence and provide a reference source for the future. The charter will provide direction and a sense of purpose to the committee membership.

The second step, or structure phase, will create the structure for management of the program. This will start with convening the SDS Committee, which will include members from all UCHealth stroke programs. The SDS Committee will review data related to stroke patients discharged on a statin from sources consisting of Get With The Guidelines, Vizient, and Epic. The SDS Committee will review the data by payer, specifically highlighting the Medicaid population, which will be prioritized.

The third step, or process phase, will involve scoping the interventions and creating the process for driving change. The SDS Committee will identify the key drivers of success and create task forces for each core tactic. Understanding our current state and performing a gap analysis based upon the drivers will allow UCHealth a project plan for each UCHealth stroke program. Once there is a mutual understanding of the areas of opportunity, the SDS Committee will identify the appropriate parties to initiate, plan, and implement a quality improvement project utilizing the DMAIC framework for quality improvement. DMAIC is a Six Sigma construct aimed at reducing variability in care. The five steps include Defining, Measuring and Analyzing the problem, implementing Interventions aimed at improvement, and, finally, putting the process into a Control, or sustain phase.

It is anticipated the interventions will require collaboration with community partners including primary care physicians, community case managers, post-acute facilities (acute rehabilitation, skilled nursing, and long-term acute care) as well as UCHealth telemedicine community hospital partners. While we know the population focus will be those Medicaid patients who suffered an acute ischemic stroke and were discharged on statin therapy, the work of the SDS Committee will include analysis of discharge dispositions to ascertain whether to include all discharged patients or segments of that population.

We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we are highlighting the anticipated collaboration among our future community partners via data sharing and analytics, evidence-based care coordination and care transitions, and chronic care management.

Citation:

1. Link: <https://www.jointcommission.org/accreditation-and-certification/certification/certifications-by-setting/hospital-certifications/stroke-certification/advanced-stroke/primary-stroke-center/>

**All Others (PVH, MCR, LPH, UCH, Memorial)**: The intervention selected to address the stroke discharge on statin quality measure entails building a process of oversight and performance improvement to ensure that all patients receive a statin when indicated. Hyperlipidemia is a major risk factor for stroke. Studies have shown that statins have proven efficacy for reducing the risk of recurrent Ischemic stroke. Statins have remained the first line agents to decrease cholesterol and reduce risk of stroke and other cardiovascular diseases. Lipid lowering by other means have not shown significant impact for the secondary prevention of stroke or prevention of other cardiovascular events. The 2019 AHA Clinical Practice Guidelines for secondary prevention of stroke refers back to the 2018 Guideline on the Management of Blood Cholesterol. Under the 2018 guidelines, the goal of therapy for secondary prevention is for LDL-C threshold of less than 70 mg/dL. Adherence to changes in lifestyle and effects of LDL-C lowering medication should be assessed by measurement of fasting lipids and appropriate safety indicators 4 to 12 weeks after statin initiation or dose adjustment and every 3 to 12 months thereafter based on need to assess adherence or safety. Within UCHealth stroke facilities, we have shown a high compliance with discharging patients who have had an acute ischemic stroke on statins if indicated. We have been delivering exceptional stroke care following evidence-based guidelines for many years. Hence, we are following order sets we developed that are derived from clinical practice guidelines (I.e. evidence-based medicine). Long standing stroke standards of care are key to our success. However, we have not developed a systematic way to measure compliance.

For this intervention UCHealth will focus on developing a standardized process for measuring compliance. This intervention requires establishing a Stroke Discharge on Statin (SDS) Committee. The SDS Committee will be chartered at the UCHealth system level and will include representatives of the system entities currently or seeking Stroke Center designation. The work of the SDS Committee will be executed at the system or local hospital level, as appropriate.

We will take a three-step approach to build a program to address stroke patients being discharged on a statin: governance, structure, and process. The first step, or governance phase, will consist of charter creation, stakeholder engagement, and committee empanelment. Specifically, the senior directors of the stroke programs across UCHealth will craft the SDS Committee charter to formally authorize the existence and provide a reference source for the future. The charter will provide direction and a sense of purpose to the committee membership.

The second step, or structure phase, will create the structure for management of the program. This will start with convening the SDS Committee, which will include members from all UCHealth stroke programs. The SDS Committee will review data related to stroke patients discharged on a statin from sources consisting of Get With The Guidelines, Vizient, and Epic. The SDS Committee will review the data by payer, specifically highlighting the Medicaid population, which will be prioritized.

The third step, or process phase, will involve scoping the interventions and creating the process for driving change. The SDS Committee will identify the key drivers of success and create task forces for each core tactic. Understanding our current state and performing a gap analysis based upon the drivers will allow UCHealth a project plan for each UCHealth stroke program. Once there is a mutual understanding of the areas of opportunity, the SDS Committee will identify the appropriate parties to initiate, plan, and implement a quality improvement project utilizing the DMAIC framework for quality improvement. DMAIC is a Six Sigma construct aimed at reducing variability in care. The five steps include Defining, Measuring and Analyzing the problem, implementing Interventions aimed at improvement, and, finally, putting the process into a Control, or sustain phase.

It is anticipated the interventions will require collaboration with community partners including primary care physicians, community case managers, post-acute facilities (acute rehabilitation, skilled nursing, and long-term acute care) as well as UCHealth telemedicine community hospital partners. While we know the population focus will be those Medicaid patients who suffered an acute ischemic stroke and were discharged on statin therapy, the work of the SDS Committee will include analysis of discharge dispositions to ascertain whether to include all discharged patients or segments of that population.

We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we are highlighting the anticipated collaboration among our future community partners via data sharing and analytics, evidence-based care coordination and care transitions, and chronic care management.

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

**North (LPH, MCR, PVH):**

1.**Intervention selected based on CHNE community needs**

**All:** The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention. Heart disease is the 2nd and cerebrovascular disease the 5th leading cause of death in Boulder, Weld, and Larimer Counties. Ischemic stroke is the most common type of stroke and may be caused by a buildup of cholesterol in the arteries, which blocks blood flow to brain. If LDL (low-density lipoprotein) cholesterol is too high, statin drugs can reduce the risk of a recurrent stroke because they lower the artery clogging, “bad” LDL cholesterol. High cholesterol and high blood pressure are linked. When the arteries become hardened and narrowed with cholesterol plaque, the heart has to strain much harder to pump blood through them. As a result, blood pressure becomes abnormally high. High blood pressure was the most commonly diagnosed chronic disease in the state of CO (12%).

**LPH:** In Weld County, 8.7% of residents with Medicaid were diagnosed with high blood pressure, and in Larimer County, 7.2% of residents with Medicaid were diagnosed with high blood pressure. When considering the general population, 15.5% of Denver Metro Area had a prevalence of adult hypertension compared to the lowest county across all of the metro area—Boulder County (10.4%).

**All:** Additionally, individuals with disabilities also had complex health care and social needs. In Colorado, there were 16.9% of individuals who live with some disability. According to Medicaid claims, these individuals accounted for a large proportion of Medicaid health care costs. In general, adults in Colorado with disabilities were more likely to be inactive (32.7%) compared to those without disabilities (16.3%). Adults in Colorado with disabilities were also more likely to have high blood pressure, smoke, and be obese, compared with Coloradans without disabilities.

**2.Core population aligned with CHNE**

**All:** These results illuminated the core population to include residents at risk of cerebrovascular disease and those with hypertension.

**PVH/MCR:** The most common physical chronic disease found in Medicaid homeless enrollees is hypertension.

3.**Intervention to leverage medical/social resources or partners**

Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. Our team of stroke coordinators in Weld, Boulder, and Larimer Counties organize at least two community facing education events per year. These events focus on signs and symptoms of stroke and the importance of calling 911 to get to a stroke hospital quickly. There are additional educational events hosted by the hospitals that are intended for the Emergency Medical Services community and focus on screening patients in the field, pre-notification to the hospital emergency room, etc.

Once a potential stroke patient arrives at the hospital, they are met by clinical teams throughout the hospital – physicians, nurses, and ancillary providers – radiology, pharmacy, lab, therapies, and so on -- trained in stroke recognition who follow precise order sets that guide treatment which is standard of care.

**Metro (UCH, HRH):**

**UCH:** The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention. One of the three leading causes of death in Adams, Arapahoe and Denver counties was heart disease. The age-adjusted rate for heart disease hospitalizations (per 100,000 population) in Denver (2,586), Arapahoe (2,366) and Adams (2,499) counties were slightly higher than Denver metro area (2,266). Likewise, the age-adjusted rate of hospitalizations due to stroke (per 100,000 population) in Denver (264), Arapahoe (253) and Adams (285) counties were slightly higher than Denver metro area (248).

Furthermore, approximately 12.1% of Adams County residents had adult hypertension, which was lower compared to both rates across Arapahoe County (15.9%) and Denver County (15.8%). The two leading comorbidities noted were hypertension with 195 (49%) members and mental health comorbidity with 175 (43%) members. Ischemic stroke is the most common type of stroke and may be caused by a buildup of cholesterol in the arteries, which blocks blood flow to brain. If LDL (low-density lipoprotein) cholesterol is too high, statin drugs can reduce the risk of a recurrent stroke because they lower the artery clogging, “bad” LDL cholesterol. High cholesterol and high blood pressure are linked. When the arteries become hardened and narrowed with cholesterol plaque, the heart has to strain much harder to pump blood through them. As a result, blood pressure becomes abnormally high. High blood pressure was the most commonly diagnosed chronic disease in the state of CO (12%).

Additionally, individuals with disabilities also had complex health care and social needs. In Colorado, there were 16.9% of individuals who live with some disability. According to Medicaid claims, these individuals accounted for a large proportion of Medicaid health care costs. In general, adults in Colorado with disabilities were more likely to be inactive (32.7%) compared to those without disabilities (16.3%). Adults in Colorado with disabilities were also more likely to have high blood pressure, smoke, and be obese, compared with Coloradans without disabilities. As noted previously, elevated cholesterol is definitively linked to high blood pressure.

2. These results illuminated the core population to include residents at risk of cerebrovascular disease and those with a diagnosis of high cholesterol (35%) and hypertension (25%). Statins have remained the first line agents to decrease cholesterol, thus minimizing the potential for hypertension. Focusing on this core patient population would help to reduce their risk for stroke and cardiovascular diseases.

3. Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. Interventions to help with this transformation include focusing additional community education on the impacts of high cholesterol. Community education can aid in an awareness of risks factors and ways to mitigate the risks of strokes. Stroke coordinators in each of our certified hospitals currently provide multiple community educational opportunities and leveraging the work that is in place to focus on high cholesterol would be beneficial for this patient population.

**HRH:** The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention. The leading causes of death in Douglas County were heart disease (89.4 per 100,000 population) and cerebrovascular diseases (29.8 per 100,000 population) to name a couple. Whereas, the leading causes of death in Jefferson County was heart disease (132.5 per 100,000 population) as well. Furthermore, the age-adjusted rate for heart disease hospitalizations (per 100,000 population) in Douglas (2,034) and Jefferson (1,977) counties were slightly lower than the Denver metro area (2,266). Likewise, the age-adjusted rate of hospitalizations due to stroke (per 100,000 population) in Douglas (215), and Jefferson (242) counties were slightly lower than Denver metro area (248). Ischemic stroke is the most common type of stroke and may be caused by a buildup of cholesterol in the arteries, which blocks blood flow to brain. If LDL (low-density lipoprotein) cholesterol is too high, statin drugs can reduce the risk of a recurrent stroke because they lower the artery clogging, “bad” LDL cholesterol. High cholesterol and high blood pressure are linked. When the arteries become hardened and narrowed with cholesterol plaque, the heart has to strain much harder to pump blood through them. As a result, blood pressure becomes abnormally high.

High blood pressure was the most commonly diagnosed chronic disease in the state of CO (12%). When considering the general population, 15.5% of Denver metro area had a prevalence of adult hypertension which is lower compared to both rates across Douglas County (16.3%) and Jefferson County (16.2%). According to the state, those with hypertension and bone disease accounted for high hospital utilization rates and overall costs. Hypertension was highly comorbid with alcohol abuse and dependence.

Additionally, individuals with disabilities also had complex health care and social needs. In Colorado, there were 16.9% of individuals who live with some disability. According to Medicaid claims, these individuals accounted for a large proportion of Medicaid health care costs. In general, adults in Colorado with disabilities were more likely to be inactive (32.7%) compared to those without disabilities (16.3%). Adults in Colorado with disabilities were also more likely to have high blood pressure, smoke, and be obese, compared with Coloradans without disabilities. As noted previously, elevated cholesterol is definitively linked to high blood pressure.

2. These results illuminated the core population to include residents at risk of cerebrovascular disease and those with a diagnosis of high cholesterol (35%) and hypertension (25%). Statins have remained the first line agents to decrease cholesterol, thus minimizing the potential for hypertension. Focusing on this core patient population would help to reduce their risk for stroke and cardiovascular diseases.

3. Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. Interventions to help with this transformation include focusing additional community education on the impacts of high cholesterol. Community education can aid in an awareness of risks factors and ways to mitigate the risks of strokes. Stroke coordinators in each of our certified hospitals currently provide multiple community educational opportunities and leveraging the work that is in place to focus on high cholesterol would be beneficial for this patient population.

**South (Memorial):**

1. The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention. The leading causes of death in El Paso County are heart disease (128.5 per 100,000 population) and cerebrovascular diseases (37.0 per 100,000 population) to name a couple. Additionally, heart disease (130.9 per 100,000) had a higher prevalence in El Paso County compared to the state of Colorado. In total, 35% of adults living in the region had a diagnosis of high cholesterol, while 25% had a diagnosis of high blood pressure. Ischemic stroke is the most common type of stroke and may be caused by a buildup of cholesterol in the arteries, which blocks blood flow to brain. If LDL (low-density lipoprotein) cholesterol is too high, statin drugs can reduce the risk of a recurrent stroke because they lower the artery clogging, “bad” LDL cholesterol. High cholesterol and high blood pressure are linked. When the arteries become hardened and narrowed with cholesterol plaque, the heart has to strain much harder to pump blood through them. As a result, blood pressure becomes abnormally high. High blood pressure was the most commonly diagnosed chronic disease in the state of CO (12%).

Additionally, individuals with disabilities also had complex health care and social needs. In Colorado, there were 16.9% of individuals who live with some disability. According to Medicaid claims, these individuals accounted for a large proportion of Medicaid health care costs. In general, adults in Colorado with disabilities were more likely to be inactive (32.7%) compared to those without disabilities (16.3%). Adults in Colorado with disabilities were also more likely to have high blood pressure, smoke, and be obese, compared with Coloradans without disabilities. As noted previously, elevated cholesterol is definitively linked to high blood pressure.

2.These results illuminated the core population to include residents at risk of cerebrovascular disease and those with a diagnosis of high cholesterol (35%) and hypertension (25%). Statins have remained the first line agents to decrease cholesterol, thus minimizing the potential for hypertension. Periodic readmission case reviews and root-cause analysis are performed for patients with a stroke diagnosis at UCHealth Memorial Hospital. Focusing on this core patient population would help to reduce their risk for stroke and cardiovascular diseases.

3.Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. Interventions to help with this transformation include focusing additional community education on the impacts of high cholesterol. Community education can aid in an awareness of risks factors and ways to mitigate the risks of strokes. Stroke coordinators in each of our certified hospitals currently provide multiple community educational opportunities and leveraging the work that is in place to focus on high cholesterol would be beneficial for this patient population.

**5: Evidence Base intervention:**

1. **Randomized Control Trial (RCT) level evidence**
2. **Best practice supported by less than RCT evidence**
3. **Emerging practice**
4. **No evidence**

(1) Randomized Control Trial (RCT) level evidence

The purpose of these guidelines is to provide an up-to-date comprehensive set of recommendations in a single document for clinicians caring for adult patients with acute arterial ischemic stroke. The intended audiences are prehospital care providers, physicians, allied health professionals, and hospital administrators. These guidelines supersede the 2013 Acute Ischemic Stroke (AIS) Guidelines and are an update of the 2018 AIS Guidelines. (1)

Members of the writing group were appointed by the American Heart Association (AHA) Stroke Council's Scientific Statements Oversight Committee, representing various areas of medical expertise. In June 2018, the writing group submitted a document with minor changes and with inclusion of important newly published randomized controlled trials with >100 participants and clinical outcomes at least 90 days after AIS (1). The writing group evaluated the peer reviewers' comments and revised when appropriate. Hence, these guidelines use the American College of Cardiology/AHA 2015 Class of Recommendations and Level of Evidence and the new AHA guidelines format (1).

The guidelines resulted in detailing prehospital care, urgent and emergency evaluation and treatment with intravenous and intra-arterial therapies, and in-hospital management, including secondary prevention measures that are appropriately instituted within the first two weeks (1). The guidelines support the overarching concept of stroke systems of care in both the prehospital and hospital settings. In summation, these guidelines provide general recommendations based on the currently available evidence to guide clinicians caring for adult patients with acute arterial ischemic stroke (1).

The evidence base intervention selected entails the adherence to effects of LDL-C lowering medication should be assessed by measurement of fasting lipids and appropriate safety indicators 4-12 weeks after statin imitation or dose adjustment and every 3 to 12 months thereafter based on need to assess adherence or safety. Lowering LDL-C levels by 1% generally equals about 1% reduction in heart disease and stroke risk, but the effect can be even greater when starting with higher baseline levels of LDL-C. On the basis of several large studies, it’s estimated that reducing LDL-C levels with statins by about 38.7 mg/dL can reduce heart disease and stroke risk by about 21%, based on the results of several large studies (2). UCHealth believes that by monitoring and adjusting those patients at risk for secondary events, we can influence the incidence of secondary strokes and decrease readmission rates for strokes. By conducting this intervention, it will complement the existing intervention, and ultimately, it will enhance the existing intervention that will directly impact the stroke discharge on statin quality measure under the Hospital Transformation Program.

Citations:

1. Powers, W. J., & Rabinstein, A. A. et.al (2019). Guidelines for the Early Management of Patients With Acute Ischemic Stroke: 2019 Update to the 2018 Guidelines for the Early Management of Acute Ischemic Stroke. *Stroke*, *50*, e344-e418. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/31662037>
2. American Heart Association. (2018). Retrieved from <https://www.heart.org/-/media/files/health-topics/cholesterol/chlstrmngmntgd_181110.pdf>

**6: Intersection with Statewide Initiatives**

* Yes
* **If yes, select from list:**
  + [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
  + [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
  + [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
  + [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
  + [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
  + [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
  + Rx Tool
  + [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
  + [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
  + [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
  + [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
  + Crisis Intervention
  + [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
  + Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Accountable Care Collaborative (ACC) Phase II
* Affordability Road Map

Health Care Policy & Finance enabled hospitals to organically align with the aforementioned statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the long run without compromising quality healthcare. Ideally, that partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

**7: Intervention Historical Experience**

**Consider the following:**

* **Does UCHealth or affiliated community partner have experience with intervention and/or core population?**
* **If so, how does the experience support the success of the intervention?**

**HRH-Experience:** UCHealth and our affiliated community partner(s) have experience with this particular measure because our other hospitals are certified in either “Advanced Primary Stroke Centers” or “Comprehensive Stroke Centers” through national accrediting organizations. However, we do not have an oversight group involving rigorous governance, structure and process improvement methods to drive higher performance.

**All Others-Experience**: UCHealth and our affiliated community partner(s) have experience with this particular measure because our hospitals are certified in either “Advanced Primary Stroke Centers” or “Comprehensive Stroke Centers” through national accrediting organizations. However, we do not have an oversight group involving rigorous governance, structure and process improvement methods to drive higher performance.

**8: Existing Intervention Rationale**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

**HRH-Existing:** UCHealth selected an existing measure because it is the best approach for meeting the community needs identified in the Community Health Neighborhood Engagement process. This approach is ideal due to the existing evidence that statins lower your body’s cholesterol level. The American Heart Association recommends intensive statin therapy for patients who have had an ischemic stroke. Stopping statin drug therapy between three and six months after a first ischemic stroke is associated with a higher risk of another stroke within a year and can contribute to hypertension as a known risk factor. Highlands Ranch Hospital has a mechanism in place to order statin for all stroke patients upon discharge. The opportunity to adopt UCHealth’s discharge template to ensure statins are being prescribed is in progress. Given the work around the primary stroke center certification there is heightened attention regarding stroke patients receiving statins upon discharge. This existing intervention will be enhanced to meet the HTP goals by the development of a standardized process for measuring compliance, understanding our shortcomings and developing processes to improve compliance. Please see additional information in our response to question 3.

**All Others-Existing:** UCHealth selected an existing measure because it is the best approach for meeting the community needs identified in the Community Health Neighborhood Engagement process. This approach is ideal due to the existing evidence that statins lower your body’s cholesterol level. The American Heart Association recommends intensive statin therapy for patients who have had an ischemic stroke. Stopping statin drug therapy between three and six months after a first ischemic stroke is associated with a higher risk of another stroke within a year and can contribute to hypertension as a known risk factor. This existing intervention will be enhanced to meet the HTP goals by the development of a standardized process for measuring compliance, understanding our shortcomings and developing processes to improve compliance. Please see additional information in our response to question 3.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** No

**If yes, identify partner and provide documentation such as letter of partnership, MOU or BAA.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| N/A | N/A | N/A | N/A |

**SW-CP1 - Social Determinants of Health screening and notification**

**1: Name of Intervention:** SDOH Screen & Notification

**2**: **Measure Selection:** SW-CP1 - Social Determinants of Health screening and notification

**3: Intervention Description & Rationale**

The intervention selected to address the social determinants of health (SDOH) quality measure entails providing a social determinants of health screen and referral to our Medicaid patients with the intention of notifying the Regional Accountable Entity of any positive screens. The five core domains encompass housing instability, food insecurity, transportation problems, utility help needs and interpersonal safety. A series of questions have been developed in our Electronic Health Record system, Epic, to satisfy the domains and precisely calculate which social services the patient must address.

UCHealth is leveraging the Aunt Bertha tool to scale the electronic search and referral platform across our integrated health system. Aunt Bertha helps people in need find social services in their area. It is a free-to-use online platform that makes it easy for anyone in the US to find and apply for social services just by typing in a ZIP code. Electronic medical records present the potential to standardize data collection, integration, referral and tracking of SDOH data. Due to our desire to connect more patients to social programs in the community, we have pursued the enterprise instance of Aunt Bertha’s platform in order to take advantage of premium features such as advanced search configuration, assessments, integration tools, and a dedicated representative to support UCHealth. Aunt Bertha integrates program data with our existing electronic health record system so that the record of care follows our patient, inside clinical walls and out in the community. Furthermore, it is the only solution in the marketplace that our community organizations can adopt for their own work, at no cost, in order to best serve our patients and community.

The intention is for the Department of Care Management to take the lead on offering the screening tool for individual patients in the inpatient setting prior to discharge and utilizing the referral platform to partner with community organizations electronically. A unique element of this process is that our community partners can leverage Aunt Bertha to utilize a closed loop communication with UCHealth. Care Management staff traditionally encompass both registered nurses and licensed social workers. These staff members will undergo the appropriate training to successfully operate this screening tool and referral technology as well as understand the effective processes to compliment the software.

Based upon the patient’s response to the screening tool, the referral intervention is customized to the patient’s needs. Hence, UCHealth will connect the patient to the appropriate resource in the community based upon the five core domains. Modifications of the intervention may need to occur in the future due to evolving needs of our staff, community and patients alike. One of the advantages of this process is that it allows the opportunity for reassessment and evolution rather than stagnation.

We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we are highlighting the collaboration among our anticipated community partners including community-based organizations via evidence-based care coordination and care transitions, and community-based population health and disparities reduction efforts. Furthermore, the Regional Accountable Entities (RAEs) will benefit from data sharing and analytics to satisfy the notification to RAE requirement.

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

1.The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention.

Metro

UCHealth Broomfield Hospital serves the geographical areas of Jefferson and Broomfield Counties including parts of the Denver Metro area. One partner felt that hospital social workers are providing patients with lists of services, but not necessarily making connections. The ability to connect these social and medical services and data across different organizations to avoid duplication and provide seamless care to patients is an identified gap highlighted in the CHNE. Furthermore, co-locating social service providers in health system settings was identified as a best practice that could be expanded. Individuals may be “captive audiences” in a hospital emergency department or inpatient bed. While they may not have all the needed paperwork to complete applications for programs like SNAP or WIC, meeting someone face-to-face to discuss a program, get accurate contact information, and initiate a process was identified as a critical step in connecting people with services. This community need demonstrates clear alignment with our ability to provide social determinants of health screen and referral to our patients.

UCHealth Highlands Ranch Hospital encompasses the geographical area which includes Douglas County and Jefferson County residents. A little over half of the respondents indicated that Douglas County did not have adequate transportation options to meet the needs of low-income residents. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Pilot programs that connect individuals to ride-sharing programs such as Uber or Lyft were mentioned by a few partners as another promising strategy, especially for less-mobile populations. Subsequently, areas of opportunity indicated were 1 in 10 Jefferson County residents were food insecure in 2017. The metro area has had several pilot programs for legal, medical-legal, and financial services that have been valuable for streamlining care and improving health. These may be especially relevant for individuals with significant behavioral health conditions or individuals with dementia who lack a designated power of attorney or caregivers who can or are willing to serve in this capacity when care decisions are needed. One partner felt that hospital social workers are providing patients with lists of services, but not necessarily making connections. The ability to connect these social and medical services and data across different organizations to avoid duplication and provide seamless care to patients is an identified gap highlighted in the CHNE. Co-locating social service providers in health system settings was identified as a best practice that could be expanded. Hence, the desire to offer an integrated referral platform to address social determinants of health is ideal to address the community needs.

University of Colorado-Anschutz Medical Campus (UCH-AMC) is a large academic medical center located in the city of Aurora. Community partners described how low-income populations in the metro area struggle with food insecurity and its impacts on poor health outcomes. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. There are some community resources and services available to meet patients’ nutritional needs. This may include organizations like Hunger Free Colorado available to enroll patients in SNAP or WIC. Others also referenced home-delivered meals that may be available through non-profit organizations such as Project Angel Heart or meals-on-wheels. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. The overall lack of affordable housing in the metro area, including limited apartment capacity, was identified as especially acute for low-income Medicaid enrollees. Partners see people moving around frequently, which impacts whether and how they access care. This involuntary displacement may also negatively impact behavioral health. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. The metro area has had several pilot programs for legal, medical-legal, and financial services that have been valuable for streamlining care and improving health. These may be especially relevant for individuals with significant behavioral health conditions or individuals with dementia who lack a designated power of attorney or caregivers who can or are willing to serve in this capacity when care decisions are needed.

Furthermore, co-locating social service providers in health system settings was identified as a best practice that could be expanded. Individuals may be “captive audiences” in a hospital emergency department or inpatient bed. While they may not have all the needed paperwork to complete applications for programs like SNAP or WIC, meeting someone face-to-face to discuss a program, get accurate contact information, and initiate a process was identified as a critical step in connecting people with services. Ideally face-to face, between a patient and a community (external provider or organization) that is responsible for providing or coordinating their care before that patient is discharged from the hospital is key to ensuring successful transitions. Hence, the desire to offer an integrated referral platform to address social determinants of health is ideal to address the community needs.

North:

UCHealth Longs Peak Hospital encompasses the geographical area which includes Boulder and Weld counties. Residents and community organizations of Weld and Boulder counties noted that transportation is a challenge for Medicaid enrollees. Both counties are spread out with health centers and the hospital being centrally located. Public transportation from more remote locations to and from health centers is scarce. Transportation is a primary barrier in accessing health and social resources in Boulder and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. Lack of timely Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. The metro area has had several pilot programs for legal, medical-legal, and financial services that have been valuable for streamlining care and improving health. These may be especially relevant for individuals with significant behavioral health conditions or individuals with dementia who lack a designated power of attorney or caregivers who can or are willing to serve in this capacity when care decisions are needed. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., housing). The Longmont Community initiated a community-wide meeting to address IT issues related to sharing information on social determinants of health. This group is called Longmont Enabling Caring Communities. The group is hoping to create a governance structure that will allow community organizations to use a single platform to assess and address social determinants of health. Hence, the desire to offer an integrated referral platform to address social determinants of health is ideal to address the community needs.

UCHealth Greeley Hospital encompasses the geographical area which includes Weld County. Weld County residents articulated that the four most common themes when asked what ways will enable a healthier place to live, work, and play and the social need was indicated as the following: Transportation (329 responses; 25.3%). Transportation is the main barrier to accessing health and social resources in Weld County. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Many mentioned needs related to addressing social determinants of health including, transportation, food insecurity, and DME access were items that care coordinators could support patients when making appointments with specialty providers. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., housing). In summary, there are multiple agencies providing care coordination services to patients. It would be helpful to streamline the process and have a one-way referral system between hospitals and centralized care coordination agency. Hence, the desire to offer an integrated referral platform to address social determinants of health is ideal to address the community needs.

UCHealth Yampa Valley Medical Center is a rural hospital located in Routt County. Routt County is a rural community with long-term residents, but also seasonal workers that are employed by ski resorts or coal mining companies. Seasonal employment brings up several issues related to the unstable social determinants of health and health care coverage. During community stakeholder interviews, we found that finding affordable housing in the area is challenging, with many minimum wage workers having to commute to and from nearby counties. Steamboat Springs is a destination resort and the cost of rental properties during the ski and summer seasons contributes to the lack of housing available for residents. The combination of the high cost of living, low wages, and remote location lead to workforce development and sustainability challenges. Approximately, 18% of all 2019 CHNA respondents mentioned having lack of access to housing. Transportation is a major barrier, both for inter-facility transportation, as well as for Routt County residents to get to and from appointments. Gaps in primary care access are related to transportation and distance from the Medicaid enrollee's home and the PCMH. In conversations with community organizations and hospital employees, medical-legal needs did not come up as a common issue. There are volunteer legal agencies and lawyers that offer free services to community members. Food insecurity came up in several conversations with community organizations. We identified community organizations that provide food delivery or food pantry services to Routt County residents. Many of those organizations are supported via donations and grants. We were unable to identify a meals-on-wheels program. However, only 5% of the 2019 CHNA respondents noted food insecurity as a personal challenge. Over 70% of all survey respondents mentioned that they have access to quality foods. Routt County is participating in the Accountable Health Community grant, which assesses and addresses social determinants of health. The grant requires a multi-stakeholder partnership and the use of standardized social determinants of health assessment tools. Additional gaps include determining if patients followed up on recommended social services or health care agency referrals (if external health system). Hence, the desire to offer an integrated referral platform to address social determinants of health is ideal to address the community needs.

UCHealth Poudre Valley Hospital is a community hospital that serves Larimer County and Weld County. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Additional gaps include determining if patients followed up on recommended social services or health care agency referrals (if external health system). Hence, the desire to offer an integrated referral platform to address social determinants of health is ideal to address the community needs.

UCHealth Medical Center of the Rockies encompasses the geographical area which includes Weld and Larimer Counties. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Additional gaps include determining if patients followed up on recommended social services or health care agency referrals (if external health system). Hence, the desire to offer an integrated referral platform to address social determinants of health is ideal to address the community needs.

South

UCHealth Memorial Hospital users reside in El Paso County. The community faces challenges due to geographic sprawl such as limited transportation options and employment opportunities. Affordable housing and lack of population density to support businesses and public services are community needs identified by the local public health agency. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., housing).

**Grandview:** The community faces challenges due to geographic sprawl such as limited transportation options and employment opportunities. Affordable housing and lack of population density to support businesses and public services are community needs identified by the local public health agency. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., housing).

**PPRH**: Teller County has a unique employment landscape. Five of the largest business sectors include accommodation and food services, retail trade, mining and quarrying, county government and education, and health care/social assistance. Transportation is the main barrier to accessing health and social resources in Teller County. Medicaid pays for transportation to and from appointments via Teller Cab Co., but this must be scheduled ahead of time, leaving those with urgent appointments without being able to access this Medicaid benefit. We identified community organizations that provide food delivery or food pantry services to Teller County residents. Many of those organizations are supported via donations and grants. We were unable to identify a meals-on-wheels program. Aspen Mine Center, a community organization in South Teller, helps South Teller County residents with legal, medical-legal and financial resources. Furthermore, seasonal employment was also brought up as an issue in Teller County. Seasonal work leads to high unemployment rates and instability of social determinants of health. Additional gaps include determining if patients followed up on recommended social services or health care agency referrals (if external health system). Hence, the desire to offer an integrated referral platform to address social determinants of health is ideal to address the community needs.

2.These results illuminated the target population to include

Metro

* **BFH:** These results illuminated the target population to include patients with chronic and complex health conditions who are low-income or homeless based on the community needs. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. Nearly all community partners identified housing as one of the most significant gaps in social supports for HTP priority populations. This ranged from safe housing environments, especially for older adults or frail elderly to children with special health care needs. Permanent supportive housing that includes “wrap around” services to address individuals’ medical, behavioral health, and social needs are needed – and lacking in supply – for individuals with behavioral health and physical health concerns. Some partners mentioned the sober living homes available in the metro area and cited a need to expand these services.
* **HRH:** These results illuminated the target population to include patients with chronic and complex health conditions who are low-income or homeless based on the community needs. There were 4,665 (2.2%) homeless residents covered by Medicaid in RAE Region 3. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. Nearly all community partners identified housing as one of the most significant gaps in social supports for HTP priority populations. This ranged from safe housing environments, especially for older adults or frail elderly to children with special health care needs. Permanent supportive housing that includes “wrap around” services to address individuals’ medical, behavioral health, and social needs are needed – and lacking in supply – for individuals with behavioral health and physical health concerns. Some partners mentioned the sober living homes available in the metro area and cited a need to expand these services.
* **UCH:** These results illuminated the target population to include patients with chronic and complex health conditions who are low-income or homeless based on the community needs. UCHealth-AMC evaluated 5,810 unique Medicaid high utilizers citizens. Also, there were 594 (10.2%) Medicaid enrollees who used the hospital and were homeless. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. Nearly all community partners identified housing as one of the most significant gaps in social supports for HTP priority populations. This ranged from safe housing environments, especially for older adults or frail elderly to children with special health care needs. Permanent supportive housing that includes “wrap around” services to address individuals’ medical, behavioral health, and social needs are needed – and lacking in supply – for individuals with behavioral health and physical health concerns. Some partners mentioned the sober living homes available in the metro area and cited a need to expand these services.

North:

* **Greeley**: These results illuminated the target population to include patients with chronic and complex health conditions who are low-income or homeless based on the community needs. Nearly all community partners identified housing as one of the most significant gaps in social supports for HTP priority populations. Individuals are experiencing homelessness face a challenging time when transitioning from the hospital to back to the community. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. There were 752 homeless residents covered by Medicaid in Weld County. Furthermore, one hundred seventy-three refugees arrived in Weld County in 2017. According to the Department of Health and Human Services, the three main refugee settlement areas include Greeley (13%), Denver Metro (80%) and Colorado Springs (7%). Refugee populations have complex social situations. They often have faced early life trauma, and many have mental health diagnosis. However, refugee patients are less likely to seek mental health care or take medications due to cultural bias. Individuals with disabilities also have complex health care and social needs.
* **MCR**: There is a high number of homeless individuals in Larimer and Weld County, yet homeless services are lacking. There were 1,401 homeless Medicaid enrollees in RAE region 2 and 3,685 homeless Medicaid enrollees in RAE region1. Four hundred forty-one homeless Medicaid enrollees utilized UCHealth Medical Center of the Rockies in the past year. Homeless Medicaid enrollees were more likely to be males than females. Many high utilizers are unemployed or have little to no income. There is a high prevalence of homeless clients or clients with housing instability. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. The most common physical chronic disease found in Medicaid homeless enrollees is hypertension. Furthermore, refugee populations are socially complex and have a difficult time navigating the U.S. health care system. This population often had lower health literacy rates and disbelief in mental health diagnoses. Refugee populations have complex social situations.
* **PVH**: There is a high number of homeless individuals in Larimer and Weld County, yet homeless services are lacking. There were 1,401 homeless Medicaid enrollees in RAE region 2 and 3,685 homeless Medicaid enrollees in RAE region1. Eight hundred sixty-three homeless Medicaid enrollees utilized UCHealth Poudre Valley Hospital in the past year. Homeless Medicaid enrollees were more likely to be males than females. Many high utilizers are unemployed or have little to no income. There is a high prevalence of homeless clients or clients with housing instability. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. The most common physical chronic disease found in Medicaid homeless enrollees is hypertension.
* **LPH**: According to the state, during the state fiscal year of 2018, 234 Medicaid clients who utilized UCHealth Longs Peak Hospital were homeless, and 88 (37.6%) of those patients were high utilizers. Hence, there is a high number of homeless individuals in Boulder and Weld County, yet homeless services are lacking. Furthermore, refugee populations have social and medical complex needs. Several organizations were working together on social determinants of health, mental health capacity and access to care, and access to specialty care. They often had faced early life trauma, and many had a mental health diagnosis. However, refugee patients were less likely to seek mental health care or take medications due to cultural bias. The language barrier and health care system navigation were additional challenges associated with caring for Medicaid refugee populations.
* **YVMC**: In evaluating the state dataset and our internal hospital dataset, we noted that there are less than 30 individuals who are homeless and covered by Medicaid who utilized Yampa Valley Medical Center. However, when talking to the hospital staff, they mentioned that the few homeless patients have no safe disposition, given the cold weather conditions, and no available shelter in the area. This results in avoidable, but prolonged lengths of stay. Nearly all community partners identified housing as one of the most significant gaps in social supports for HTP priority populations. This ranged from safe housing environments, especially for older adults or frail elderly to children with special health care needs. Permanent supportive housing that includes “wrap around” services to address individuals’ medical, behavioral health, and social needs are needed – and lacking in supply – for individuals with behavioral health and physical health concerns. The overall lack of affordable housing in Routt County, including limited apartment capacity, was identified as especially acute for low-income Medicaid enrollees. Partners see people moving around frequently, which impacts whether and how they access care. This involuntary displacement may also negatively impact behavioral health. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs.

South

* **GVH:** Several post-acute care facilities also commented on limiting or not accepting patients who have severe social determinants of health such as homelessness due to the inability to disposition these patients to a safe place (i.e., temporary house). There were 21 homeless individuals covered by Medicaid who used UCHealth Grandview Hospital over a period of a year. Individuals with disabilities also have complex health care and social needs.
* **Memorial**: Several post-acute care facilities also commented on limiting or not accepting patients who have severe social determinants of health such as homelessness due to the inability to disposition these patients to a safe place (i.e., temporary house). There were 828 homeless individuals covered by Medicaid who used UCHealth Memorial Hospital over a period of a year. Individuals with disabilities also have complex health care and social needs.
* **PPRH:** According to our UCHealth electronic health record data, there were less than 20 homeless individuals with a Teller County resident zip code who also used one more UCHealth hospitals. Also, the state provided data showcasing 14 Medicaid Teller County residents. The overall lack of affordable housing in Teller County, including limited apartment capacity, was identified as especially acute for low-income Medicaid enrollees. There has been a surge of individuals living in tents and cars, mostly in South Teller County area. Partners see people moving around frequently, which impacts whether and how they access care. This involuntary displacement may also negatively impact behavioral health. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs.

3. With the assistance of Aunt Bertha (referral platform), patient care data is recorded inside the walls of the clinics and hospital as well as the community. It has the capability to develop a sophisticated understanding of the needs of our communities as well as the opportunity to find critical community resources. As a result, UCHealth has selected Aunt Bertha to integrate within Epic to offer a SDOH screen and referral tool to facilitate quality health care and provide communication to the community-based organizations and RAEs. We will continue to build out our community organizations list to integrate within Aunt Bertha. Furthermore, our preliminary resources to be leveraged encompass a multitude of medical and social resources to address the local community needs.

Metro:

* **BFH/HRH/UCH:** Several agencies address the social determinants of health, but their resources are limited. There is a desire to understand the social determinants of health community capacity and share referral data across different settings. Individuals experiencing homelessness were frequently identified as being difficult to facilitate transitions for, primarily because of the basic need for housing. Some examples to leverage may include the Jefferson County Regional Homeless Navigator model to promote connections across multiple cares and social needs in the county’s municipalities. The Colorado Coalition for the Homeless has also developed partnerships with area hospitals including Denver Health, SCL, St. Joseph Hospital, and UC Health Anschutz regarding hospitalizations and discharges to assist individuals without a home. Furthermore, we anticipate leveraging Aunt Bertha, who offers the social determinants of health referral platform, in order to successfully achieve our intervention implementation.

North:

* **Greeley**: Several agencies address the social determinants of health, but their resources are limited. There is a desire to understand the social determinants of health community capacity and share referral data across different settings. There are some community resources and services available to meet patients’ nutritional needs. This may include organizations like Hunger Free Colorado available to enroll patients in SNAP or WIC. Others also referenced home-delivered meals that may be available through non-profit organizations such as Project Angel Heart or meals-on-wheels. UCHealth Greeley Hospital was not open at the time of the environmental scan; however, Northeast Health Partners is the Regional Accountable Entity for Region 2 and will be a key partner in the coming years.
* **PVH/MCR**: Several agencies address the social determinants of health, but their resources are limited. There is a desire to understand the social determinants of health community capacity and share referral data across different settings. All Medicaid members in Larimer County received care coordination, which includes basic and complex care coordination services via the Rocky Mountain Health Plans or Northeast Health Partners (RAEs). The RAE either provides direct care coordination services, or subcontracts care coordination services to centralized teams, namely the MACC team and North Colorado Health Alliance (NCHA). The North Colorado Health Alliance gathers local providers together to discuss efforts and share best practices. Also, the alliance also provides care coordination and complex care management to those who need complex medical and social services. The NCHA also supports several practices in RAE region 2, by providing centralized care coordination services to Medicaid members. The NCHA has connections with several community organizations that help address social determinants of health.
* **LPH**: Several agencies address the social determinants of health, but their resources are limited. There is a desire to understand the social determinants of health community capacity and share referral data across different settings. The RAE has a team of care coordinators that are responsible for providing Medicaid member care coordination services. Partnering with the RAE, major primary care medical homes or Federally Qualified Health Centers will facilitate communications as Medicaid members transition from hospital to their communities. The North Colorado Health Alliance team, which serves the three main primary care clinics in the Weld County area, could also provide a centralized location to allow for hospital-clinic partnerships.
* **YVMC**: Several agencies address the social determinants of health, but their resources are limited. There is a desire to understand the social determinants of health community capacity and share referral data across different settings. There are some community resources and services available to meet patients’ nutritional needs. Resources may include local community organizations, as well as the local public health department (SNAP/WIC). Furthermore, the case managers will conduct a face-to-face assessment of all patients admitted to the hospital. Case managers are responsible for assessing and addressing social determinants of health. When needed, the care managers will also develop an elaborate care plan with the patient. Rocky Mountain Health Plans subcontracts care management services with Northwest Colorado Health Partnership and are deemed as collaborative to support social determinants of health. Furthermore, members of their team are implementing an Accountable Health Communities model that assesses and addresses social determinants of health. This program will also evaluate current community resource capacity and gaps in services.

South:

* **GVH/Memorial**: Several agencies address the social determinants of health, but their resources are limited. There is a desire to understand the social determinants of health community capacity and share referral data across different settings. The RAE is the main contractor for providing care management services to all Medicaid members. The RAE subcontracts this care management agreement with Peak Vista. Both entities provide basic and complex care management for Medicaid members. UCHealth Memorial hospital has access to contacts at CCHA and Peak Vista to connect patients with these agencies as they transition from the hospital back into the community.
* **PPRH**: Several agencies address the social determinants of health, but their resources are limited. There is a desire to understand the social determinants of health community capacity and share referral data across different settings. The Colorado Community Health Alliance has a patient navigator for Medicaid residents of Teller County. The patient navigator helps Medicaid clients with finding a primary care provider, specialists, and assess and address social determinants of health. The patient navigator works at Aspen Mine Center. Aspen Mine Center is a not for profit organization that helps South Teller County residents with social services and medical services assistance. In 2017, Aspen Mine served 1,396 Teller County residents with financial aid to emergency needs (i.e., housing, medical, transportation, and utilities). Aspen Mine Center offers food delivery assistance for 135 households which includes 45 seniors every month, and 800 clients utilize the Aspen Mine Center food pantry. For Medicaid clients, Colorado Community Health Alliance delegates care management services through Peak Vista only. Community organizations addressing social determinants of health divide the provision of services between North and South Teller County residents. There are some community resources and services available to meet patients’ nutritional needs. Resources may include local community organizations, as well as the local public health department (SNAP/WIC).

**5: Evidence Base intervention: Select One**

1. **Randomized Control Trial (RCT) level evidence**
2. **Best practice supported by less than RCT evidence**
3. **Emerging practice**
4. **No evidence**

Select: (2) Best practice supported by less than Randomized Control Trial evidence

The evidence base intervention selected entails providing a social determinants of health screen and referral to the target population with the intention of notifying the Regional Accountable Entity (RAE) of any positive screens (see question 3 for more details).

The intervention implements the utilization of Epic to conduct the electronic health record-based screening in conjunction with Aunt Bertha who offers an electronic referral system to address social determinants of health (SDOH) with our community-based organizations. We believe this intervention will address the quality measure by observation studies.

Unmet social determinants of health contribute to medical illness, an increased risk of chronic diseases and unnecessary emergency departments visits and hospitalization. Recent health care policies reforms have incentivized health care systems to improve population health with SDOH screening. Organizations administering SDOH assessments often establish workflows to track patient needs and referrals. This results in the standardization of patient screening and referral processes. However, even with a validated, SDOH screen, clinicians report difficulty navigating patients to external resources. (1) In spite of the recognition of the importance of this screening process, few electronic health record-based tools have been created for primary care providers or health systems. Electronic medical records present the potential to standardize data collection, integration, referral and tracking of SDOH data. Gold et al report that standardizing SDOH data collection and presentation in EHRs could lead to improved patient and population health outcomes in community health and other care settings. In addition, it provides the opportunity for the care team to streamline responsibilities and efficiencies. (2) However, there are a paucity of screening tools that facilitate both SDOH screening and resource referrals.

Virginia Commonwealth University Health System’s (VCU Health) TakeCCARE (Complex Care Assisting and Reviewing Education) program for complex patients developed a workflow for administering the Health Leads Social Needs Assessment tool. The team administers the survey when the patient is initially hospitalized, following discharge, and during reassessment. Establishing standardization of the process ensures that patients are assessed at appropriate intervals to track changes in health condition, social needs, goals, and referrals. Furthermore, it promotes accurate data collection with a feedback loop. Access Health Spartanburg is piloting Healthify — a software platform that helps health care organizations find community services, track social needs, and coordinate referrals with community partners — in combination with the organization’s electronic workflow and care plan to ensure that patient needs are documented across the care team. In addition, two Redwood Community Health Centers (RCHC): Petaluma and West County Health Centers, have been pilot testing a program called Purple Binder. Purple Binder’s web-based referral network creates a feedback loop between health systems and community providers by giving them the ability to access available resources, make referrals, and track outcomes. (3) Hence, the cited evidence base supports the use of the intervention among the target population.

Butiron et. al performed an observational study in 2019 to identify the burden of SDOH and evaluate the feasibility of an EHR based screening and referral system in a primary care setting at Boston Medical Center. The electronic program utilized was THRIVE, an SDOH screening and referral program. Their results demonstrated that unemployment, food insecurity and affording medications were the most prevalent SDOH for their community. Furthermore, the implementation of a screening and referral process to address and document SDOH was feasible in their primary care practice. In addition, their results suggest that integrating a systemic clinical strategy via EHR programs to address SDOH is feasible and may be applicable to urban primary care settings. In addition, they speculate that these processes provide the opportunities to better personal treatment plans and assist with community and hospital resources for patients. (4)

Aunt Bertha is a search and referral program that integrates program data with our existing Electronic Health Record system, Epic. It was built to influence social determinants of health in partnership with our community organizations who will leverage this very software intervention. With the assistance of Aunt Bertha, patient care data is recorded inside the walls of the clinics and hospital as well as the community. It has the capability to develop a sophisticated understanding of the needs of our communities as well as the opportunity to find critical community resources. Every search and referral are recorded for further data analysis. In addition, community organizations can proactively respond. Based upon the above evidence, EHR tools present the potential to standardize data collection, integration, referral and tracking of SDOH data. As a result, UCHealth has selected Aunt Bertha to integrate within Epic to offer a SDOH screen and referral tool to facilitate quality health care and provide communication to the community-based organizations and RAEs.

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PMID: **31095052** DOI: [10.1097/MLR.0000000000001029](https://doi.org/10.1097/mlr.0000000000001029)

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Link: https://journals.sagepub.com/doi/10.1177/2150132719887260

**6: Intersection with Statewide Initiatives**

* Yes
* **If yes, select from list:**
  + Behavioral Health Task Force
  + Affordability Road Map
  + IT Road Map
  + HQIP
  + ACC
  + SIM Continuation
  + Rx Tool
  + Rural Support Fund
  + SUD Waiver
  + Health Care Workforce
  + Jail Diversion
  + Crisis Intervention
  + Primary Care Payment Reform
  + Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Affordability Road Map
* IT Road Map
* Accountable Care Collaborative (ACC) Phase II

Health Care Policy & Finance enabled hospitals to organically align with the aforementioned statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II and the ability to partner with the Regional Accountable Entities (RAEs) as it highlights this opportunity to notify the RAE across multiple quality measures. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program as well.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the future without sacrificing high quality health care. Ideally, that partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program.

Additionally, there are 16 initiatives recommended in the IT Roadmap and they provide guidance for Coloradan’s health IT efforts in the future. When implemented, the results of the initiatives will provide an expanded, more robust foundation supporting Colorado achieving its health reform goals. There are six domains in which these initiatives fall under and encompass the following: stakeholder engagement, governance, resources/financial, privacy and security, innovation, and technology. The initiative that resonates most with this quality measure falls under the governance domain and entails the ability to harmonize and advance data sharing and health information exchange capabilities across Colorado. As a part of the quality measure description, UCHealth intends on sharing data by notifying the RAE of the activity.

**7: Intervention Historical Experience**

**Consider the following:**

* **Does UCHealth or affiliated community partner have experience with intervention and/or target population?**
* **If so, how does the experience support the success of the intervention?**

UCHealth and our community partner(s) has limited experience with this particular intervention as the implementation of this screening tool and referral platform is new. Previously, UCHealth had non-standardized processes in place that enabled an individual approach to address social needs of our Medicaid patient population. For instance, community-based resource lists and web searches were a common practice based upon the interdisciplinary team members’ identification of the patient’s needs.

Based on the unanticipated global pandemic of COVID-19, a rapid implementation of the Aunt Bertha platform occurred in order to address specific resource needs during this unprecedented event. Aunt Bertha is a social services and community resource directory used to connect patients with free or reduced cost services. Essentially, UCHealth enabled access to this technology accompanied by a tip sheet to guide the providers and staff as an additional resource for our employees and patients alike. UCHealth wants to acknowledge that our community partners are devoting all available resources to the COVID-19 pandemic readiness and care delivery, in addition to, UCHealth. In light of this, UCHealth believes leveraging this platform will be best served via a formal implementation including structure and process elements accompanied by the proper education and training to best address the situation at hand. As the current public health situation is fluid, we are not able to predict when this implementation will occur. We will continue to monitor the ongoing situation, communicate with the Health Care Policy & Financing and our anticipated community partners, as well as provide updates as needed. We believe our experience will support the success of implementing this intervention by standardizing our processes and moving towards a consistent screening tool and referral platform.

**8: Existing Intervention Rationale**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

Existing: UCHealth selected an existing intervention because it is the best approach for meeting the community needs identified in the Community Health Neighborhood Engagement process. Health Care Policy & Financing encouraged all hospitals with 26 beds or more to participate in this statewide effort in order to address the quality measure. UCHealth believes with this momentum among the evidence base that suggests by implementing this intervention, the quality measure should be addressed as well.

Based on the unanticipated global pandemic of COVID-19, a rapid implementation of the Aunt Bertha platform occurred in order to address specific resource needs during this unprecedented event. Aunt Bertha is a social services and community resource directory used to connect patients with free or reduced cost services. Essentially, UCHealth enabled access to this technology accompanied by a tip sheet to guide the providers and staff as an additional resource for our employees and patients alike. This existing intervention will be enhanced to meet the HTP goals via amplifying this existing technology platform by identifying key personnel, establishing processes and workflows, creating and offering formal training, and customizing the platform to include our top community based organizations we intend on partnering alongside to address social needs as a community. In general, modifications of the intervention may need to occur in the future due to evolving needs of our staff, community, and patients or as scientific evidence is updated.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** No

**If yes, identify partner and provide documentation such as letter of partnership, MOU or BAA.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| N/A | N/A | N/A | N/A |

**SW-BH1: Behavioral Health Collaborative Discharge Planning Process & Notification to the RAE**

**1: Name of Intervention:** Behavioral Health Care Coordination

**2: Measure Selection:** SW-BH1: Behavioral Health Collaborative Discharge Planning Process & Notification to the RAE

**3: Intervention Description & Rationale**

The intervention selected to address the behavioral health collaborative discharge planning process and notification to the Regional Accountable Entity (RAE) quality measure entails identifying eligible[[1]](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en%2DUS&rs=en%2DUS&wopisrc=https%3A%2F%2Fmyuch.sharepoint.com%2Fsites%2FHTP%2F_vti_bin%2Fwopi.ashx%2Ffiles%2Ffb1467e4c88b431dae9fea605465ad1a&wdenableroaming=1&wdfr=1&mscc=1&hid=346fed2d-9489-75f5-5acf-72a5a1d4eb31-8069&uiembed=1&uih=teams&hhdr=1&jsapisr=1&dchat=1&sc=%7B%22pmo%22%3A%22https%3A%2F%2Fteams.microsoft.com%22%2C%22pmshare%22%3Afalse%2C%22surl%22%3A%22%22%2C%22curl%22%3A%22%22%2C%22vurl%22%3A%22%22%2C%22eurl%22%3A%22https%3A%2F%2Fteams.microsoft.com%2Ffiles%2Fapps%2Fcom.microsoft.teams.files%2Ffiles%2F3248110847%2Fopen%3Fagent%3Dpostmessage%26objectUrl%3Dhttps%253A%252F%252Fmyuch.sharepoint.com%252Fsites%252FHTP%252FShared%2520Documents%252FGeneral%252FHospital%2520Application%252FSystem%252FHospital%2520Application_SW-BH1.docx%253Fweb%253D1%26fileType%3Ddocx%26userClickTime%3D1581094141688%26ctx%3DopenFilePreview%26scenarioId%3D8069%26theme%3Ddefault%26version%3D20191209022%26setting%3Dring.id%3Ageneral%26setting%3DcreatedTime%3A1581094141771%22%7D&wdhostclicktime=1581094141688&jsapi=1&newsession=1&corrid=254a130b-9806-456c-8ebe-b8b7960187a9&usid=254a130b-9806-456c-8ebe-b8b7960187a9&core=1&accloop=1&sdr=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush#_ftn1) patients 18 years or older who are discharged from the hospital or emergency department with a principal or secondary diagnosis of mental illness or substance use disorder. Our implementation plan will include engaging the RAE and relevant community partners to create collaborative discharge planning processes that intentionally matches available resources to appropriate segments and/or risk profiles of the eligible population. We intend on leveraging our health information exchange partner, CORHIO, to send the hospitals admit, discharge, and transfer information to the RAEs. Consistent with continuous quality improvement principles, ongoing intervention modifications may need to occur to impact other HTP outcomes such as readmission rates, or to accommodate evolving needs of our staff, community and patients alike.

We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. By indulging in the HTP framework, we are organically accelerating the hospital’s readiness for value-based payments with the intention to reduce costs. Furthermore, we are highlighting the collaboration among our community partners via data sharing and analytics, evidence-based care coordination and care transitions, integrated physical and behavioral health care delivery, and chronic care management.

[1] Eligible patients are those who give consent or for whom state and federal statutes allow notification without consent. Implementation plans for this measure must include a robust process for seeking patient consent.

**4: Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

1.The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention. Residential and outpatient substance use treatment services were identified as especially limited, even more so for individuals with both behavioral health (mental health and substance use) and physical health concerns, or individuals who also have developmental or intellectual disabilities. There is lack of care coordination between complex Medicaid members receiving Home and Community Based Services and primary care, hospital and post-acute care networks. We have found that one of the most frequently identified community-wide priority areas is behavioral health, which includes mental health and substance use disorders and care transitions. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs. Medicaid is the single largest payer in the U.S. for behavioral health disorders, including mental health and substance use disorders. Individuals in a hospital emergency department or inpatient bed represent a “captive audience.” The ideal coordination of care for successful transitions is a face-to face interaction between a patient and a community external provider or organization before that patient is discharged from the emergency department or hospital. However, this is not always possible due to the volumes of patients needing services. Partners described the challenges, difficulties, and time required to connect with or find, patients with whom they did not meet or speak before discharge. This lowers the likelihood that patients will receive the care and supports needed to avoid a readmission or emergency department visit. As a result, it is imperative to have a process that closes the gap with a collaborative emergency department and discharge planning process and notification to our community partners.

2. These results of our research illuminated the core population to include patients with chronic and complex health conditions who have mental health and substance abuse issues.

**UCHealth University of Colorado-Anschutz Medical Campus (AMC)** is a large academic medical center located in the city of Aurora. Most partners shared that behavioral health services are limited. Residential and outpatient substance use treatment services were identified as especially limited, even more so for individuals with both behavioral health (mental health and substance use) and physical health concerns, or individuals who also have developmental or intellectual disabilities. Of all patients who utilized the UCHealth University of Colorado-Anschutz Hospital, those with Medicaid insurance were 4.7 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. 9.4% of adults ages 18 years and older in the Denver metro area reported binge drinking in the past 30 days’ average, compared to the three hospital service area counties: Adams (17.2%), Arapahoe (17.4%), and Denver (25.6%). In 2017, Adams County residents had the highest rates of age-adjusted death rates of any opioid analgesic death, compared to residents of Arapahoe and Denver counties. Denver metro area, Denver County and Adams County had the highest heroin-related overdose deaths. Alcohol abuse was the most common APR DRG diagnosis for Medicaid high utilizers living in RAE 5 and RAE 6 who used hospital services. Alcohol abuse ranks in the top five reasons for an Emergency Department visits. The most prevalent chronic diseases of Medicaid high utilizers at UCH-AMC were substance use disorders, with alcohol use disorder being the second most common ED diagnosis. Partners shared concerns that alcohol was a significant health challenge for many individuals, including the HTP priority populations. The most common reason for ED use by homeless individuals with Medicaid were alcohol related disorders, followed by suicidal ideation or attempt, and substance disorders.

**UCHealth Yampa Valley Medical Center** is a rural hospital located in Routt County. Alcohol-related disorders were identified as the top substance use disorder in our hospital service area, accounting for 55% of all visits to Emergency Department for those who have one or more substance use disorder co-morbidity. Alcohol abuse and dependence diagnostic code was the leading cause of hospital admissions for Medicaid members with chronic conditions. Routt County is in the lowest quartile for ED visits related to prescription opioids (4.1-9.8 visits per 100,000 residents) and hospitalizations related to prescription opioids (5.1-10.9 hospital admissions per 100,000 residents). However, Routt County had the second highest rate of age-adjusted opioid-related deaths (6.7-9.6 deaths per 100,000 residents). In evaluating Yampa Valley Medical Center’s electronic health record data, Medicaid individuals with a mental health disorder utilized the hospital most commonly for alcohol-related disorders, mood disorders, and anxiety disorders. The alcohol related disorders were the primary reason for hospital admission for Medicaid members with mental health disorders. Mood disorders were the primary reason for Medicaid members with mental health disorders utilizing the ED. Medicaid members who used Yampa Valley Medical Center had one or more mental health disorders and accounted for 179 visits over a period of six months. Routt County has lower rates of depression (12.8%) and anxiety (1.9%) when compared with the state of Colorado (18.4% and 16.4% respectively). In assessing the UCHealth electronic health record, we found that approximately 8.6% of all Yampa Valley Medical Center Medicaid covered visits were for individuals with one or more substance use disorders. Alcohol related disorders are the 4th and 8th leading cause of emergency department utilization for those with Medicaid insurance and all payers. Several community stakeholders mentioned there is poor access to limited mental health and substance use disorder services for those who live in Routt County. There are currently no detoxification centers available for Routt County residents with Medicaid insurance.

**UCHealth Poudre Valley Hospital** is a community hospital that serves Larimer County and Weld County. Larimer and Weld county have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Seventy-three percent of all patients with opioid use disorders also have mental health disorder diagnoses. Furthermore, 30% of patients with opioid use disorder had co-occurring alcohol use disorder, and 12% were homeless. Of all patients who utilized UCHealth Poudre Valley Hospital, those with Medicaid insurance were two times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. The top diagnosis associated with hospital use by Medicaid high utilizers at UCHealth Poudre Valley Hospital was alcohol-related disorders. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Community organizations stressed the need for mental health and substance use disorder services

**UCHealth Pikes Peak**: UCHealth Pikes Peak Regional Hospital is a critical access hospital located in Teller County. Teller County residents with a mental health diagnosis contributed to 9.1% of all inpatient and ED visits. This rate was slightly higher for Medicaid Teller residents (10.3%) who utilized a UCHealth hospital. Teller County has one of the highest prescription opioid-related ED visit rates (18.1 and 96.0 per 100,000 residents), prescription opioid-related hospitalizations (24.9-59.7 per 100,000 residents), and opioid-related deaths (9.0-13.5 per 100,000) in the state of Colorado. Teller County has higher rates of depression (21.2%) and anxiety (21.6%) when compared with the state of Colorado (18.4%). There is a shortage of mental health providers in Teller County. There are no local inpatient psychiatric hospitals or detoxification units. Medicaid members with an acute exacerbation of their mental illness who require an inpatient psychiatric stay are evaluated by the local emergency services company in collaboration with the hospital via a paramedicine program. Medicaid members with a desire for recovery and seeking detox services also must travel to Colorado Springs for care.

**UCHealth Memorial Hospital**: Most of its UCHealth Memorial Hospital’s users resided in El Paso County. In El Paso county, the two leading causes of death are suicide and accidents among residents between the ages of 1 and 44 years. El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively. The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000 residents). Of all suicides in El Paso County, 74% percent were gun deaths. El Paso County has higher rates of alcohol-impaired driving deaths (42%) compared to 34% in the state of Colorado. Almost 80% of all high health care utilizers also had chronic mental health or substance use disorder. Of the patients who utilized UCHealth Memorial Hospital, those with Medicaid insurance were 8.3 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, those with Medicaid insurance were 3.5 times more likely to use the hospital for suicidal ideation or attempt. According to the state of Colorado’s Medicaid dataset, the alcohol abuse and dependence diagnostic related code was the leading cause of hospital admissions for several Medicaid members with chronic conditions. According to RAE seven, the number one potentially avoidable cost was hospitalization related to an alcohol use disorder. The most prevalent chronic diseases of Medicaid high utilizers at UCHealth Memorial Hospital are mental health and substance use disorder. Medicaid top utilizer reason for ED utilization reason at UCHealth Memorial Hospital was alcohol-related disorders. There is a shortage of mental health providers in El Paso County. For every mental health provider in El Paso County, there are 340 residents when compared to the state of Colorado where for every mental health provider there are 300 residents.

**UCHealth Medical Center of the Rockies**. The geographical area served byUCHealth Medical Center of the Rockies includes Weld and Larimer Counties. Larimer County and Weld County have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high-utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Medical Center of the Rockies, those with Medicaid insurance were 2.6 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, this population is 20% more likely to use the hospital for suicidal ideation or attempt. Nearly 12% of all patients using UCHealth Medical Center of the Rockies hospital had one or more mental health diagnoses. The top reasons for hospital visits for high utilizers were substance-related disorders and abdominal pain. According to the UCHealth Medical Center of the Rockies, mental health and substance use disorder services are the top required specialties in Larimer County. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

**UCHealth Longs Peak:** The geographic area served by the UCHealth Longs Peak Hospital includes Boulder and Weld counties. In total, 41.4% and 37.2% of all its hospital users resided in Weld County and Boulder County, respectively. Of all patients who utilized UCHealth Longs Peak Hospital, those with Medicaid insurance were 2.5 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. One percent of all encounters for UCHealth Longs Peak Hospital users were for suicide ideation or attempt. Four percent of individuals with one or more mental health disorders used UCHealth Longs Peak Hospital for suicide ideation or attempt. Of patients who utilized UCHealth Longs Peak Hospital, a similar number of Medicaid and commercially insured patients used the hospital because they felt suicidal or committed a suicidal attempt. Of patients who presented to the emergency department with a suicide attempt, 6% had to be admitted to the hospital to receive medical care to treat the effects of an overdose. Among all Medicaid ED high utilizers, 24.4% had one or more mental health disorders, 8.9% had alcohol use disorder, and 3.1% had opioid use disorder. There is a surplus of mental health providers in Boulder County, but a shortage in Weld County. However, it is unclear how many Boulder County behavioral health providers accept new patients with Medicaid.

**UCHealth Highlands Ranch**: The geographical area served by UCHealth Highlands Ranch includes Douglas County and Jefferson County residents. Both Douglas and Jefferson counties had higher rates of depression (17.7% and 18.8%, respectively), whereas Douglas had lower rates of anxiety (13.6%) and Jefferson had higher rates of anxiety (16.5%) when compared with the state of Colorado. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs. Due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

**UCHealth Greeley Hospital**: The geographic area served by UCHealth Greeley Hospital is Weld County. Weld County has high rates of residents with mental health and substance use disorders. The top areas of avoidable care were for substance use disorders. Psychiatry services utilize telehealth for inpatient psychiatric consultations. For every mental health provider in in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

**UCHealth Grandview Hospital**: The geographic area served by UCHealth Grandview Hospital is El Paso county. In El Paso county, the top two leading causes of death are suicide and accidents among residents between the ages of 1 and 44 years. Almost 80% of all high utilizers also had a chronic mental health or substance use disorder. El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively). The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000). Of suicides in El Paso County, 74% percent were gun deaths. Of all patients who utilized UCHealth Grandview Hospital, those with Medicaid insurance were 4.7 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. In total, 0.9% of all encounters for individuals with one or more mental health disorders were for suicide ideation or attempt. Of patients who utilized UCHealth Grandview Hospital, those with Medicaid insurance were 2.2 times more likely to utilize the hospital for suicidal ideation or attempt when compared to patients with commercial insurance. There is a shortage of mental health providers in El Paso County. For every mental health provider in El Paso County, there are 340 residents when compared to the state of Colorado where for every mental health provider there are 300 residents.

**UCHealth Broomfield Hospital**: The geographic area served by UCHealth Broomfield Hospital is Jefferson and Broomfield Counties and the Denver Metro area. Of the patients who utilized UCHealth Broomfield Hospital, those with Medicaid insurance were 3.4 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that had commercial insurance. Medicaid patients were 10.3 times more likely to use the hospital for suicidal ideation or attempt, when compared to patients with commercial insurance. Of Medicaid ED high utilizers, 16% had one or more mental health disorders, a percentage had alcohol use disorder, and 5.1% had opioid use disorder. Most partners shared that behavioral health services are limited – although one partner shared that even when service capacity is increased, it is quickly filled, suggesting it may be difficult to provide enough services to meet the demand. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

3.All: Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. Our implementation plan will include engaging the RAE and relevant community partners to create collaborative discharge planning processes that intentionally matches available resources to appropriate segments and/or risk profiles of the eligible population. We intend on leveraging our health information exchange partner, CORHIO, to send the hospitals admit, discharge, and transfer information to the RAEs. Consistent with continuous quality improvement principles, ongoing intervention modifications may need to occur to impact other HTP outcomes such as readmission rates, or to accommodate evolving needs of our staff, community and patients alike.

**5: Evidence Base intervention:**

1. **Randomized Control Trial (RCT) level evidence**
2. **Best practice supported by less than RCT evidence**
3. **Emerging practice**
4. **No evidence**

**(2) Best practice supported by less than RCT evidence**

According to the Advisory Board (4) guidelines on behavioral health care approaches, the behavioral health population with unmet behavioral health needs have unnecessary ED visits, longer lengths of stay, and are more likely to be noncompliant with treatment recommendations. The Advisory Board concludes that it is not enough to identify behavioral health concerns, but they must be treated as well. They report data that improved medication compliance among patients with schizophrenia and Medicaid could save $106 million in inpatient acute care costs. Furthermore, a recent study estimates that the cost of care for people with behavioral illness can be 60-75% greater than the population at large (3). For emergency room patients with behavioral health issues, the Advisory Board recommends a proactive approach to provide high-quality transitions of care by fostering strong partnerships with community providers to offer a continuum of community care at discharge.

In order to transition patients to community-based services, it is essential to understand the etiology of ED utilization. (1). For many, a shortage of behavioral health professionals leaves them without any options for treatment outside of acute care. Some patients are reticent to seek help because of lingering stigma or uncertainty of costs. Still, others are unsure of their insurance coverage for such services. As such, increasing access to appropriate, timely outpatient behavioral health treatment options is critical in decreasing unnecessary behavioral health-related acute care visits.

Several programs for reducing behavioral health readmissions and hospital stays have been identified in the literature. The Program of Assertive Community Treatment (PACT) was developed in Wisconsin in the 1960s and 1970s (2). This program employed a team of psychiatrists, nurses, pharmacists, social workers, and occupational therapists to provide community-based treatment for those with severe mental illness. They found that patients in the program saw improvement in health and health spending, personal relationships, legal trouble, and substance abuse. They also saw a decrease in the average number of hospital days per year for the participants. This program can be adjusted to meet modern concerns; for example, in Oklahoma, the PACT team members for a participant are immediately notified when the participant is admitted to the ED or has law enforcement contact.

Massachusetts General developed a three-step approach to reducing readmissions among people with substance use disorders (5). They first utilized a multi-disciplinary addiction consult team to address substance use during inpatient admissions, which they estimate cut odds of readmission by 25%. Next, they opened an ED-based walk-in center for substance use disorder care, where only 10% of those patients are readmitted within 30 days. Finally, they developed strong relationships with their community mental health centers and the peer recovery coaches specifically, and incorporated care into primary care clinics, which reduced inpatient days by 9% and ED visits by 15%. Wirth and Ogundimu report that Massachusetts General had three pillars to their approach: engaged leaders who educated other staff on substance use disorders and evidence-based treatment, same-day access to Medication Assisted Treatment, and education for all staff to reduce bias.

Viggiano, Pincus, and Crystal (8) conducted a literature review of care transitions interventions for patients discharging from psychiatric inpatient stays and proposed nine critical components of care transition programs. They include prospective modeling or identifying those at greatest risk, authentically engaging the patient and family in the treatment plan, quality transition planning for the next level of care, identifying care pathways, ensuring information is accessible to all team members including those who will be treating the patient after discharge, utilization of transition coaches or agents, engaging providers with clear responsibilities and formal communication procedures, utilizing quality metrics and feedback on post-discharge outcomes to drive improvement, and shared accountability in both benefits and risks.

Standardized practice guidelines were studied by Medves et al. (7), who conducted a literature review of the distribution and implementation of such practice guidelines in team-based healthcare settings. Of the 88 studies included in their review, 72.7% showed that the dissemination and adaptation of such standardized guidelines had statistically significant improvements in provider knowledge, practice outcomes, and cost savings. One such well-known example of standardized practice guidelines influencing behavioral health outcomes is the Zero Suicide protocol originally adopted by the Henry Ford Health System in Michigan (6). Zero Suicide is a program meant to change the culture of health care systems as well as adopt standardized practices to prevent suicide among the patients treated. The Henry Ford Health System saw suicides among their population drop by 80% and sustained this success for a decade, even though suicides increased during that time period in the general population of Michigan.

UCHealth plans to mimic the successes outlined in the literature by incorporating elements of the effective programs in our collaborative practice guidelines. Supportive data for a collaborative discharge process includes Viggiano, Pincus, and Crystal (8) who found that many of the components of successful discharges from psychiatric inpatient hospitals could be applicable to acute care hospitals treating patients with behavioral health needs. Additionally, the success of San Francisco General Hospital’s standardized discharge protocol encourages the use of standardized guidelines in the approach to patients with behavioral health needs. Medves et al. (7) and Coffey and Coffey (6) have reported that standardized practice guidelines are an effective way to impact the care of patients with behavioral health needs.

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**6: Intersection with Statewide Initiatives**

* Yes
* **If yes, select from list:**
  + [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
  + [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
  + [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
  + [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
  + [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
  + [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
  + Rx Tool
  + [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
  + [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
  + [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
  + [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
  + Crisis Intervention
  + [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
  + Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Behavioral Health Task Force
* Affordability Road Map
* IT Road Map
* Accountable Care Collaborative (ACC) Phase II
* SUD Waiver

Health Care Policy & Finance enabled hospitals to organically align with statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II and the ability to partner with the Regional Accountable Entities (RAEs) as it highlights this opportunity to notify the RAE across multiple quality measures. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the long run without compromising quality healthcare. Ideally, that partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

Additionally, there are 16 initiatives recommended in the IT Roadmap and they provide guidance for Coloradan’s health IT efforts in the future. When implemented, the results of the initiatives will provide an expanded, more robust foundation supporting Colorado achieving its health reform goals. There are six domains in which these initiatives fall under and encompass the following: stakeholder engagement, governance, resources/financial, privacy and security, innovation, and technology. The initiative that resonates most with this quality measure falls under the governance domain and entails the ability to harmonize and advance data sharing and health information exchange capabilities across Colorado. As a part of the quality measure description, UCHealth intends on sharing data by notifying the RAE of the activity.

Governor Jared Polis directed the Colorado Department of Human Services to spearhead Colorado’s Behavioral Health Task Force. The mission of the task force is to evaluate and set the roadmap to improve the current behavioral health system in the state. This includes developing Colorado’s “Behavioral Health Blueprint” by June 2020, with anticipated implementation of recommendations starting in July 2020. The goals of the blueprint are highlighted below, and this statewide initiative demonstrates alignment with the intervention. Based upon our goal to establish a collaborative discharge planning process with the RAE, we believe the goal to transform behavioral health by identifying systemic gaps will allow for natural alignment between the two initiatives.

* Working with the legislature and relevant agencies to evaluate current funding streams and to recommend financing, administrative changes and savings measures and changes to ensure the behavioral health system is transformed into an integrated, accessible, accountable, efficient and high-quality behavioral health care system;
* Identifying systemic gaps and enhancements in access to behavioral health services, especially for vulnerable or underserved populations, including those experiencing intellectual and developmental disabilities; and
* Evaluating, recommending, and adopting proven strategies to drive efficiency and desired results.

In accordance with House Bill 18-1136, the Department of Health Care Policy and Financing (Department) will be working to provide the full continuum of Substance Use Disorder (SUD) benefits to Health First Colorado (Colorado’s Medicaid program) members. The Department will be adding the inpatient and residential components, including withdrawal management, to the continuum of outpatient SUD services currently available. The Department’s objective is to make these services available for individuals who meet nationally recognized evidence-based level of care criteria without shifting care from outpatient settings when they are more appropriate. We believe the SUD Waiver organically aligns with the intervention as this ongoing initiative is embedded within the Hospital Transformation Program.

**7: Intervention Historical Experience**

**Consider the following:**

* **Does UCHealth or affiliated community partner have experience with intervention and/or core population?**
* **If so, how does the experience support the success of the intervention?**

**CCHA**

The hospital or any affiliated community partner, such as the RAE, does not have any experience with intervention as the collaborative discharge planning process does not currently exist. However, the RAE has provided the following prior experience with this target population, and based on this experience, it will support the success of our future initiative. Colorado Community Health Alliance (CCHA) receives daily ADT information via CORHIO and this information is used to prioritize outreach to members. CCHA’s care coordination delegate, Accountable Care Network practices, also receive this information in order to outreach members.

As a RAE, CCHA serves all members many of which have either a primary or secondary diagnosis related to mental health or substance abuse. The Care Coordination programs were created to provide the support necessary from licensed social workers, behavioral health care coordinators, and Registered Nurses to ensure these members are engaged in care planning around their unique needs and connected to the services appropriate for the identified needs. Specifically, the Transition of Care program works with members who have experienced a hospitalization and can benefit from support as they discharge back into the community. Furthermore, the Peer Support Specialists have lived experience and prove to be a valuable connection for these members as well. The daily integrated rounds with the RAE Medical Director ensure these members receive extensive clinical support. CCHA’s behavioral health network is robust, statewide and inclusive of a full continuum of services for members. CCHA maintains an open behavioral health network, allowing opportunity to partner with the right providers in response to the specific needs of our members. Our Utilization Care Managers are experienced in assisting treatment and care coordination teams if members need services beyond traditional outpatient therapy.

**COA**

The hospital or any affiliated community partner, such as the RAE, does not have any experience with the intervention as the collaborative discharge planning process does not currently exist. However, the RAE has provided the following prior experience with this target population, and based on this experience, it will support the success of our future initiative. Colorado Access (COA) receives CORHIO ADT feeds as well as periodic contacts from hospitals. This information allows COA to risk stratify to target interventions for those members who have complex medical issues. The COA care management team provides members transitioning from hospital settings to lower levels of care with appropriate transitions of care intervention, including, but not limited to:

a. Collaboration with hospital staff to uphold timely and member-focused discharge planning.

b. Development of member-driven care plans that incorporate current member status and needs, interdisciplinary team input, and historical clinical information.

c. Submission of member referrals that support ease of access to services and remain consistent with identified member needs.

d. Care coordination activities designed to ensure sustained member access to care and reduce risk for future hospitalization.

e. Exchange of member information, clinical records, care plan goals, and care coordination activities to promote interdisciplinary service delivery.

f. Follow up with member, provider, and hospital team members to ensure follow through with treatment activities and member success

Colorado Access manages behavioral health utilization closely for ensuring that members with behavioral health needs are treated at the lowest level of care necessary for safety and efficacy. The behavioral health care management team also work with hospitals and outpatient providers to enable seamless care for the member.

Currently, Colorado Access efforts have been aimed at the transition from inpatient care. Colorado Access does not receive timely notification of emergency department visits.

**NEHP**

The hospital or any affiliated community partner, such as the RAE, does not have any experience with the intervention as the collaborative discharge planning process does not currently exist. However, the RAE has provided the following prior experience with this target population, and based on this experience, it will support the success of our future initiative.

The RAE receives CORHIO ADT feeds as well as periodic contacts from hospitals. The RAE also receives daily census information for members who have been hospitalized for behavioral health issues. This information allows RAE to risk stratify to target interventions for those members who have complex healthcare issues. The RAE care management team provides members transitioning from hospital settings to lower levels of care with appropriate transitions of care intervention, including, but not limited to:

a. Collaboration with hospital staff to uphold timely and member-focused discharge planning;

b. Development of member-driven care plans that incorporate current member status and needs, interdisciplinary team input, and historical clinical information;

c. Submission of member referrals that support ease of access to services and remain consistent with identified member needs;

d. Care coordination activities designed to ensure sustained member access to care and reduce risk for future hospitalization;

e. Exchange of member information, clinical records, care plan goals, and care coordination activities to promote interdisciplinary service delivery;

f. Follow up with member, provider, and hospital team members to ensure follow through with treatment activities and member success.

The RAE manages behavioral health utilization closely for ensuring that members with behavioral health needs are treated at the lowest level of care necessary for safety and efficacy. The behavioral health care management team also work with hospitals and outpatient providers to enable seamless care for the member.

Currently, the RAE’s efforts have been aimed at transition from inpatient care. The RAE does not routinely receive timely notification of emergency department visits.

**RMHP**

The hospital or any affiliated community partner, such as the RAE, does not have any experience with the intervention as the collaborative discharge planning process does not currently exist. However, the RAE has provided the following prior experience with this target population, and based on this experience, it will support the success of our future initiative.

The RAE receives CORHIO ADT feeds as well as periodic contacts from hospitals. ADT feeds include both inpatient stays and Emergency Department visits. This information allows RAE to risk stratify to target interventions for those members who have complex medical issues. The RAE care management team supports members transitioning from hospital settings to lower levels of care with appropriate transitions of care intervention, including, but not limited to:

a. The RAE is available to collaborate with hospital staff to participate in timely and member-focused discharge planning;

b. Participation in the development of member-driven care plans that incorporate current member status and needs, interdisciplinary team input, and historical clinical information;

c. Receipt of member referrals that support ease of access to services and remain consistent with identified member needs;

d. Care coordination activities designed to ensure sustained member access to care and reduce risk for future hospitalization;

e. Exchange of member information, clinical records, care plan goals, and care coordination activities to promote interdisciplinary service delivery.

The RAE manages behavioral health utilization closely to ensure that members with behavioral health needs are treated appropriately. The behavioral health care management team also work with hospitals and outpatient providers to enable seamless care for the member.

**8: Existing Intervention Rationale**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

**Not Existing:** This intervention was not already in existence; hence the remaining portion of this question is not applicable. No response is required in section B.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** Yes

**If yes, identify partner and provide documentation such as letter of partnership, MOU or BAA.**

RAEs to provide a letter of partnership to support this partnership.

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| |  | | --- | | Colorado Access, CCHA, RMHP, NEHP | | Regional Accountable Entity | Yes | Developing and implementing collaborative discharge planning process with hospital |

**SW-BH3: ALTOs in ED**

**1**: **Name of Intervention:** ALTOs in ED

**2**: **Measure Selection:** SW-BH3 - Using Alternatives to Opioids (ALTOs) in hospital emergency departments (EDs); Decrease use of opioids and Increase ALTOs

**3: Intervention Description & Rationale**

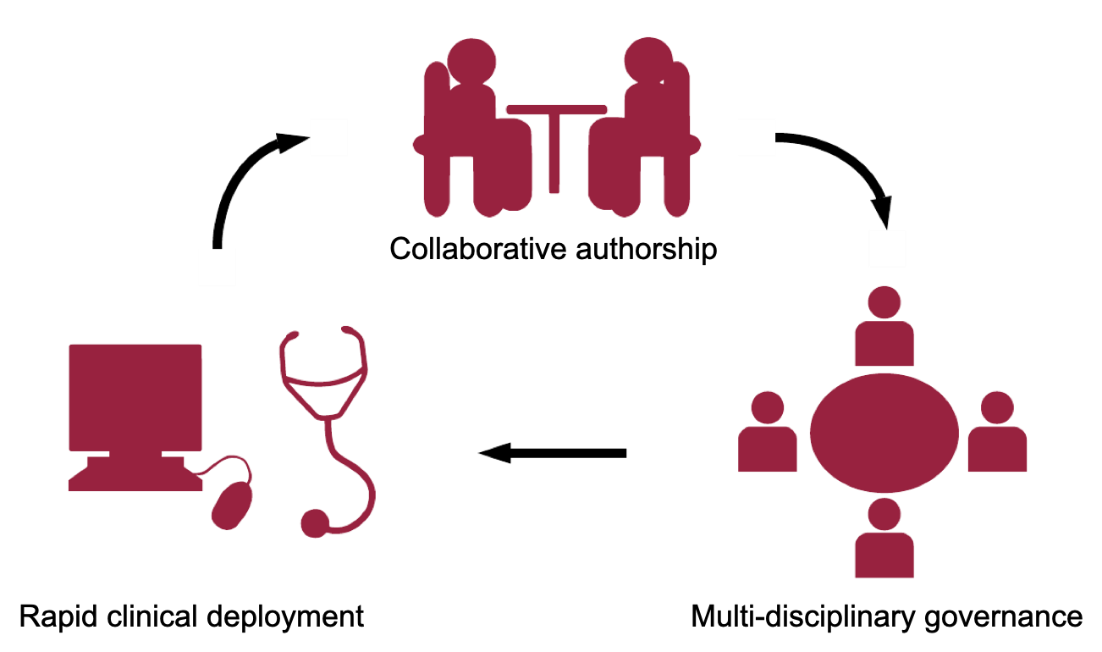
**Intervention Description components:**

1. **Brief Name**
2. **Rationale**
3. **Materials (physical/informational used in intervention) and where can it be accessed**
4. **Procedures (activities/processes used in intervention)**
5. **Intervention Provider (who provided intervention): describe expertise, background, specific training**
6. **Modes of Delivery (F2F, phone) of intervention & provided individually vs group**
7. **Location of intervention (infrastructure/features required)**
8. **When and how many times the intervention was delivered (over course of year)**
9. **Intervention tailored (if so, what, why, when, how?)**
10. **Modifications (if modified later, describe): insert standard language**

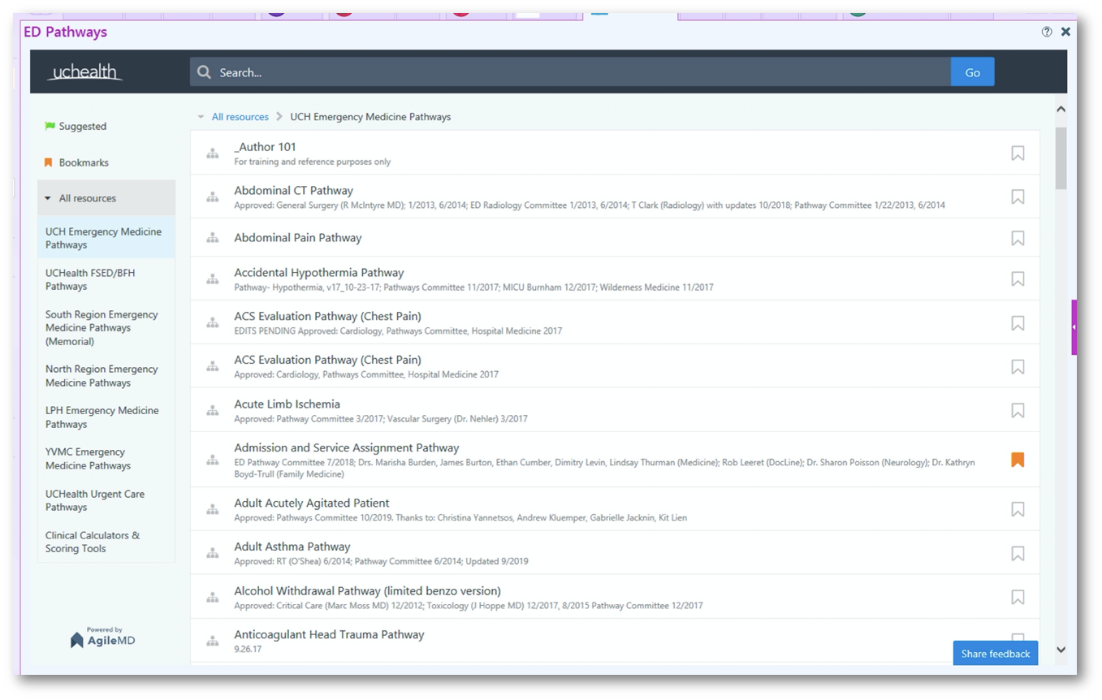
Intervention Description: The intervention to shift toward preferential use of alternatives to opioids (ALTOs) in the emergency departments (EDs) centers around standardized care pathways for common painful conditions are developed and approved in an interprofessional and multidisciplinary committee. Also, it is integrated into the electronic health record (EHR) to be easily available to providers at the time of care. These pathways preferentially recommend ALTOs as first-line therapy, both in the ED and for post-discharge prescribing, and some remove opioids from treatment algorithms altogether. Several other initiatives buttress our approach and are described in more detail below.

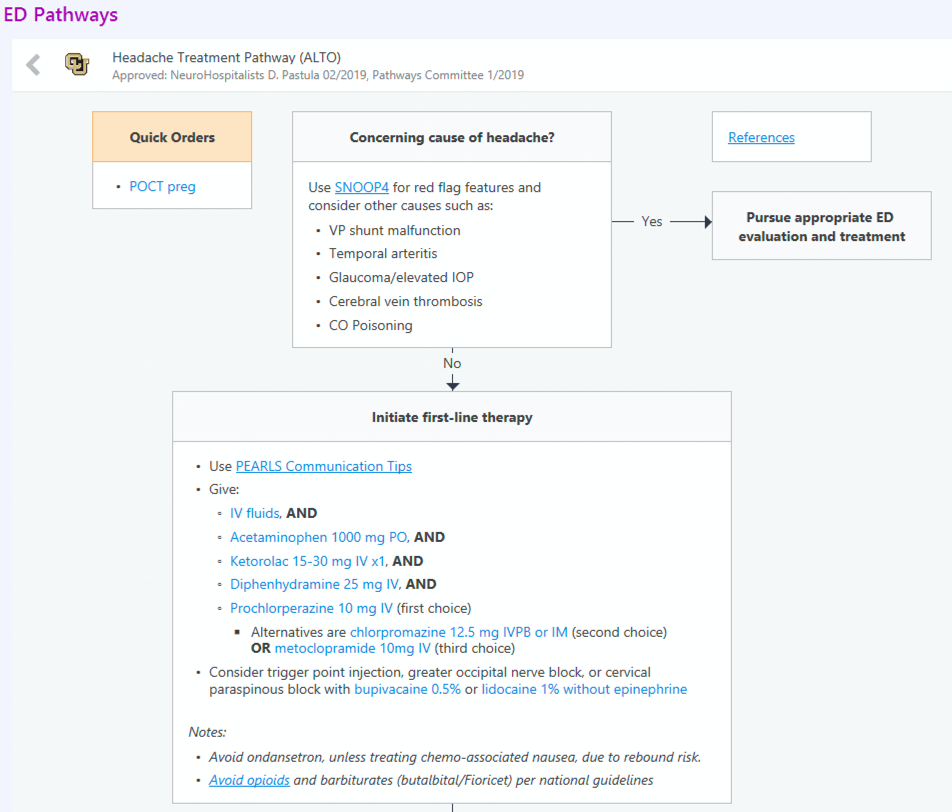
Pathways are developed collaboratively among ED clinical leaders and front-line clinicians, including physicians, advanced practice providers, nurses, technicians, pharmacists, and others. Where a particular clinical condition overlaps with other specialties or departments (for example, urology in the case of kidney stone or neurology in the case of headache), those departments participate in joint pathway development and approval as well. Pathway program infrastructure is centralized at the service line level (system wide), and local EDs can exercise governance and control to customize content to the particular needs of their site, based on their resources available and the specific needs of their patient population.

Pathway content can be quickly deployed to the production clinical environment via software (AgileMD) embedded in the EHR. Authorized pathways administrators can make updates rapidly, and appropriately certified EHR analysts/physician builders perform order-linking so that hyperlinks in the displayed pathway can be used to place orders in the EHR. This streamlines workflow, improves user adoption, and makes pathways the “path of least resistance,” and clinical staff no longer need to search for orders manually or scroll through long order sets.



From the perspective of an EHR clinical end-user, pathways appear as dynamic, visual flowcharts embedded inside an ED patient’s chart. Users can search for a particular pathway of interest, or the system can recommend a pathway based upon other data in the record, such as a patient’s age and chief complaint.





Embedding clinical decision support tools into the everyday workflow for providers allows them to easily see and recall alternative medications to treat pain. In the event opioids are needed for acute pain, the number of pills prescribed is limited using order quantity defaults. Pathways also include scripting for providers to empathetically discuss pain management goals and clearly communicate why a medicine other than an opioid is being prescribed, how it is effective, and how it may be safer than an opioid.

The Colorado Prescription Drug Monitoring Program (PDMP) is also tightly integrated into the EHR in the context of every patient’s chart. With the click of a single button, providers can query the PDMP to review risk factors for prescription drug misuse, abuse, and diversion to help make more informed decisions when considering prescribing or dispensing a controlled substance to a patient.

Pathways are primary used by ED physicians and advanced practice providers, although governance and content development involves an interprofessional group described above. Non-clinical administrative and technical staff support the infrastructure and EHR integration.

ALTO pathways are live at all UCHealth hospital-based and freestanding EDs. Pathways are available immediately upon arrival at an ED, and providers are trained to access them as their primary form of clinical decision support and ordering. The patient-facing intervention is provided individually, face-to-face. Seven ALTO pathways are currently live for back pain, dental pain, headache, musculoskeletal pain, kidney stones, and vomiting/abdominal complaints, and there is an ALTO overview pathway with scripting, national guidelines, and overarching concepts. In CY2019, injuries accounted for approximately 18% of ED visits, and non-traumatic musculoskeletal complaints accounted for an additional 7%. Another ≈10% of visits were for other commonly painful conditions covered by an ALTO pathway, such as headache or kidney stones.

UCHealth also participated in the 2017 Colorado Hospital Association Opioid Safety Pilot, a study conducted in 10 hospital emergency departments over a six-month span with a goal of reducing the administration of opioids in those EDs by 15 percent. The hospitals achieved a 36% reduction in the administration of opioids during those six months, as well as a 31% increase in the administration of alternatives to opioids.

Pathway updates are made as-needed, based on evidence changes, operational modifications, or other factors as we gain experience. Each is also reviewed every two years for new evidence by the multidisciplinary committee referenced above. In general, modifications of the intervention may need to occur in the future due to evolving needs of our staff, community, and patients or as scientific evidence is updated.

Intervention Rationale: For many conditions commonly treated in EDs, ample scientific evidence support an ALTO-first approach, and risks of opioids demonstrably outweigh their benefits for some conditions (examples include migraine headache, back pain, and musculoskeletal pain). We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience, ensuring alignment with best practices and integration of care across various settings. The HTP framework organically accelerated UCHealth’s readiness for value-based payments with the intention to provide superior outcomes at reduced costs. Furthermore, The ALTO pathways program, while developed in collaboration with Colorado Hospital Association and Colorado ACEP and delivered via AgileMD software, does not have a specific community partnership. However, we are highlighting the collaboration among our anticipated community stakeholders via data sharing and analytics, evidence-based care coordination and care transitions, integrated physical and behavioral health care delivery, and chronic care management.

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

1. The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention. Residential and outpatient substance use treatment services were identified as especially limited, even more so for individuals with both behavioral health (mental health and substance use) and physical health concerns, or individuals who also have developmental or intellectual disabilities.  There is lack of care coordination between complex Medicaid members receiving Home and Community Based Services and primary care, hospital and post-acute care networks. We have found that one of the most frequently identified community-wide priority areas is behavioral health, which includes mental health and substance use disorders and care transitions.  The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs. Medicaid is the single largest payer in the U.S. for behavioral health disorders, including mental health and substance use disorders. Individualsin a hospital emergency department or inpatient bed represent a“captive audience.” The ideal coordination of care for successful transitions is a face-to face interaction between a patient and a community external provider or organization before that patient is discharged from the emergency department or hospital. However, this is not always possible due to the volumes of patients needing services. Partners described the challenges, difficulties, and time required to connect with or find, patients with whom they did not meet or speak before discharge. This lowers the likelihood that patients will receive the care and supports needed to avoid a readmission or emergency department visit. As a result, it is imperative to continue to leverage the ALTO pathways and order sets to best address this Medicaid patient population.

2. These results of our research illuminated the core population to include patients with chronic and complex health conditions who have mental health and substance abuse issues.

UCHealth: University of Colorado-Anschutz Medical Campus (AMC) is a large academic medical center located in the city of Aurora. Most partners shared that behavioral health services are limited. Residential and outpatient substance use treatment services were identified as especially limited, even more so for individuals with both behavioral health (mental health and substance use) and physical health concerns, or individuals who also have developmental or intellectual disabilities. Of all patients who utilized the UCHealth University of Colorado-Anschutz Hospital, those with Medicaid insurance were 4.7 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance.  9.4% of adults ages 18 years and older in the Denver metro area reported binge drinking in the past 30 days’ average, compared to the three hospital service area counties: Adams (17.2%), Arapahoe (17.4%), and Denver (25.6%). In 2017, Adams County residents had the highest rates of age-adjusted death rates of any opioid analgesic death, compared to residents of Arapahoe and Denver counties. Denver metro area, Denver County and Adams County had the highest heroin-related overdose deaths. Alcohol abuse was the most common APR DRG diagnosis for Medicaid high utilizers living in RAE 5 and RAE 6 who used hospital services. Alcohol abuse ranks in the top five reasons for an Emergency Department visits.  The most prevalent chronic diseases of Medicaid high utilizers at UCH-AMC were substance use disorders, with alcohol use disorder being the second most common ED diagnosis. Partners shared concerns that alcohol was a significant health challenge for many individuals, including the HTP priority populations. The most common reason for ED use by homeless individuals with Medicaid were alcohol related disorders, followed by suicidal ideation or attempt, and substance disorders.

UCHealth Yampa Valley Medical Center is a rural hospital located in Routt County. Alcohol-related disorders were identified as the top substance use disorder in our hospital service area, accounting for 55% of all visits to Emergency Department for those who have one or more substance use disorder co-morbidity. Alcohol abuse and dependence diagnostic code was the leading cause of hospital admissions for Medicaid members with chronic conditions. Routt County is in the lowest quartile for ED visits related to prescription opioids (4.1-9.8 visits per 100,000 residents) and hospitalizations related to prescription opioids (5.1-10.9 hospital admissions per 100,000 residents). However, Routt County had the second highest rate of age-adjusted opioid-related deaths (6.7-9.6 deaths per 100,000 residents). In evaluating Yampa Valley Medical Center’s electronic health record data, Medicaid individuals with a mental health disorder utilized the hospital most commonly for alcohol-related disorders, mood disorders, and anxiety disorders. The alcohol related disorders were the primary reason for hospital admission for Medicaid members with mental health disorders. Mood disorders were the primary reason for Medicaid members with mental health disorders utilizing the ED. Medicaid members who used Yampa Valley Medical Center had one or more mental health disorders and accounted for 179 visits over a period of six months.  Routt County has lower rates of depression (12.8%) and anxiety (1.9%) when compared with the state of Colorado (18.4% and 16.4% respectively). In assessing the UCHealth electronic health record, we found that approximately 8.6% of all Yampa Valley Medical Center Medicaid covered visits were for individuals with one or more substance use disorders. Alcohol related disorders are the 4th and 8th leading cause of emergency department utilization for those with Medicaid insurance and all payers. Several community stakeholders mentioned there is poor access to limited mental health and substance use disorder services for those who live in Routt County. There are currently no detoxification centers available for Routt County residents with Medicaid insurance.

UCHealth Poudre Valley Hospital: This is a community hospital that serves Larimer County and Weld County. Larimer and Weld county have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness.  Seventy-three percent of all patients with opioid use disorders also have mental health disorder diagnoses. Furthermore, 30% of patients with opioid use disorder had co-occurring alcohol use disorder, and 12% were homeless.  Of all patients who utilized UCHealth Poudre Valley Hospital, those with Medicaid insurance were two times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. The top diagnosis associated with hospital use by Medicaid high utilizers at UCHealth Poudre Valley Hospital was alcohol-related disorders. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Community organizations stressed the need for mental health and substance use disorder services

UCHealth Pikes Peak: UCHealth Pikes Peak Regional Hospital is a critical access hospital located in Teller County. Teller County residents with a mental health diagnosis contributed to 9.1% of all inpatient and ED visits. This rate was slightly higher for Medicaid Teller residents (10.3%) who utilized a UCHealth hospital. Teller County has one of the highest prescription opioid-related ED visit rates (18.1 and 96.0 per 100,000 residents), prescription opioid-related hospitalizations (24.9-59.7 per 100,000 residents), and opioid-related deaths (9.0-13.5 per 100,000) in the state of Colorado. Teller County has higher rates of depression (21.2%) and anxiety (21.6%) when compared with the state of Colorado (18.4%). There is a shortage of mental health providers in Teller County. There are no local inpatient psychiatric hospitals or detoxification units. Medicaid members with an acute exacerbation of their mental illness who require an inpatient psychiatric stay are evaluated by the local emergency services company in collaboration with the hospital via a paramedicine program. Medicaid members with a desire for recovery and seeking detox services also must travel to Colorado Springs for care.

UCHealth Memorial Hospital: Most of its UCHealth Memorial Hospital’s users resided in El Paso County. In El Paso county, the two leading causes of death are suicide and accidents among residents between the ages of 1 and 44 years. El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively. The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000 residents). Of all suicides in El Paso County, 74% percent were gun deaths.  El Paso County has higher rates of alcohol-impaired driving deaths (42%) compared to 34% in the state of Colorado.  Almost 80% of all high health care utilizers also had chronic mental health or substance use disorder.  Of the patients who utilized UCHealth Memorial Hospital, those with Medicaid insurance were 8.3 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance.  In addition, those with Medicaid insurance were 3.5 times more likely to use the hospital for suicidal ideation or attempt. According to the state of Colorado’s Medicaid dataset, the alcohol abuse and dependence diagnostic related code was the leading cause of hospital admissions for several Medicaid members with chronic conditions. According to RAE seven, the number one potentially avoidable cost was hospitalization related to an alcohol use disorder.  The most prevalent chronic diseases of Medicaid high utilizers at UCHealth Memorial Hospital are mental health and substance use disorder. Medicaid top utilizer reason for ED utilization reason at UCHealth Memorial Hospital was alcohol-related disorders. In 2016, there were 476,242 opioid prescriptions dispensed to 130,541 El Paso County residents. Most opioid prescriptions were covered by commercial insurance, followed by Medicaid and Medicare. El Paso County has one of the highest rates of prescription opioid-related emergency department visit (20.2 per 100,000 population), prescription opioid-related hospitalizations (15.3 per 100,000 population), and opioid-related deaths (5.8 per 100,000 population) in the state of Colorado. In 2017, there were 101 substance use treatment admissions for those with heroin addiction, which is a much lower rate than the state of Colorado (134.3 admissions per 100,000 population). According to the SAMSHA buprenorphine provider locator, there are 59 medical providers able to prescribe buprenorphine, a medicine used to treat opioid use disorder. There is a shortage of mental health providers in El Paso County. For every mental health provider in El Paso County, there are 340 residents when compared to the state of Colorado where for every mental health provider there are 300 residents.

The geographic area served by **UCHealth Medical Center of the Rockies** includes Weld and Larimer counties. Larimer County and Weld County have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high-utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Medical Center of the Rockies, those with Medicaid insurance were 2.6 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, this population is 20% more likely to use the hospital for suicidal ideation or attempt. Nearly 12% of all patients using UCHealth Medical Center of the Rockies hospital had one or more mental health diagnoses. The top reasons for hospital visits for high utilizers were substance-related disorders and abdominal pain. According to the UCHealth Medical Center of the Rockies, mental health and substance use disorder services are the top required specialties in Larimer County. In 2016, there were 459,249 opioid prescriptions dispensed to Larimer County residents. Opioids represented half of all prescriptions dispensed, and benzodiazepines represented about a quarter of prescriptions. Larimer County had 131 prescription opioid-related emergency department visits rates, 219 prescription opioid-related hospitalizations, and the 12th highest opioid-related deaths.

In total, 1,142 hospital users had opioid use disorders. Of those, 33.5% had Medicare insurance, 44.9% had Medicaid, and 17.1% had commercial insurance. Of the 360 Medicaid UCHealth hospital users with opioid use disorder, 141 were high utilizers and accounted for 392 UCHealth Medical Center of the Rockies hospital visits. The UCHealth Medical Center of the Rockies data suggests that 24.8% of all patients with opioid use disorders also had a mental health disorder comorbidity. Furthermore, 64.5% of Medicaid members with opioid use disorder had co-occurring alcohol use disorder, and 5.6% were homeless. According to the SAMSHA buprenorphine provider locator, there are 47 medical providers able to prescribe buprenorphine, a medicine used to treat opioid use disorder. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

UCHealth Longs Peak: The geographic area served by the UCHealth Longs Peak Hospital includes Boulder and Weld counties. In total, 41.4% and 37.2% of all its hospital users resided in Weld County and Boulder County, respectively.  Of all patients who utilized UCHealth Longs Peak Hospital, those with Medicaid insurance were 2.5 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. One percent of all encounters for UCHealth Longs Peak Hospital users were for suicide ideation or attempt. Four percent of individuals with one more mental health disorders used UCHealth Longs Peak Hospital for suicide ideation or attempt. Of patients who utilized UCHealth Longs Peak Hospital, a similar number of Medicaid and commercially insured patients used the hospital because they felt suicidal or committed a suicidal attempt. Of patients who presented to the emergency department with a suicide attempt of 6% had to be admitted to the hospital to receive medical care to treat the effects of an overdose. Among all Medicaid ED high utilizers, 24.4% had one or more mental health disorders, 8.9% had alcohol use disorder, and 3.1% had opioid use disorder. There is a surplus of mental health providers in Boulder County, but a shortage in Weld County. However, it is unclear how many Boulder County behavioral health providers accept new patients with Medicaid.

UCHealth Highlands Ranch: The geographic area served by UCHealth Highlands Ranch includes Douglas County and Jefferson County residents.  Both Douglas and Jefferson counties had higher rates of depression (17.7% and 18.8%, respectively), whereas Douglas had lower rates of anxiety (13.6%) and Jefferson had higher rates of anxiety (16.5%) when compared with the state of Colorado. Likewise, prevalence Opioid Use Disorder was consistent among the Denver metro area and Jefferson County (0.7%) while Douglas County (0.3%) was slightly less. According to the SAMSHA buprenorphine provider locator, there are over 100 medical providers able to prescribe buprenorphine, a medicine used to treat opioid use disorder. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs. Due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

UCHealth Greeley Hospital: The geographic area served by UCHealth Greeley Hospital is Weld County. Weld County has high rates of residents with mental health and substance use disorders. The top areas of avoidable care were for substance use disorders. Psychiatry services utilize telehealth for inpatient psychiatric consultations. Weld County had one of the lower rates of opioid-related emergency department visits across the state. In Weld County, 11.2 people per 100,000 were seen and treated in an ER due to prescription opioids, compared to 15.2 in Colorado. However, there were 183 hospitalizations in Weld County related to prescription opioids. The prescription opioid-related hospitalizations (22.6 per 100,000 residents) in Weld County were higher than Colorado (18.6). Weld County had the 17th highest opioid-related death rate (6 per 100,000) in the state of Colorado. For every mental health provider in in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

UCHealth Grandview Hospital has a geographic area in is El Paso county. In El Paso county, the top two leading causes of death are suicide and accidents among residents between the ages of 1 and 44 years. Almost 80% of all high utilizers also had a chronic mental health or substance use disorder. El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively). The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000). Of suicides in El Paso County, 74% percent were gun deaths.  Of all patients who utilized UCHealth Grandview Hospital, those with Medicaid insurance were 4.7 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance.  In total, 0.9% of all encounters for individuals with one or more mental health disorders were for suicide ideation or attempt. Ofpatients who utilized UCHealth Grandview Hospital, those with Medicaid insurance were 2.2 times more likely to utilize the hospital for suicidal ideation or attempt when compared to patients with commercial insurance. In 2016, there were 476,242 opioid prescriptions dispensed to 130,541 El Paso County residents. Most opioid prescriptions were covered by commercial insurance, followed by Medicaid and Medicare. El Paso County has one of the highest rates of prescription opioid-related emergency department visit (20.2 per 100,000 population), prescription opioid-related hospitalizations (15.3 per 100,000 population), and opioid-related deaths (5.8 per 100,000 population) in the state of Colorado. In 2017, there were 101 substance use treatment admissions for those with heroin addiction, which is a much lower rate than the state of Colorado (134.3 admissions per 100,000 population). According to the SAMSHA buprenorphine provider locator, there are 59 medical providers able to prescribe buprenorphine, a medicine used to treat opioid use disorder.

There is a shortage of mental health providers in El Paso County. For every mental health provider in El Paso County, there are 340 residents when compared to the state of Colorado where for every mental health provider there are 300 residents.

UCHealth Broomfield Hospital:  The geographic area served by UCHealth Broomfield Hospital is Jefferson and Broomfield Counties and the Denver Metro area. Of the patients who utilized UCHealth Broomfield Hospital, those with Medicaid insurance were 3.4 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that had commercial insurance. Medicaid patients were 10.3 times more likely to use the hospital for suicidal ideation or attempt, when compared to patients with commercial insurance. Of Medicaid ED high utilizers, 16% had one or more mental health disorders, a percentage had alcohol use disorder, and 5.1% had opioid use disorder. Most partners shared that behavioral health services are limited – although one partner shared that even when service capacity is increased, it is quickly filled, suggesting it may be difficult to provide enough services to meet demand. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

3.All: Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. The ALTO pathways program, while developed in collaboration with Colorado Hospital Association and Colorado ACEP and delivered via AgileMD software, does not have a specific community partnerships identified in the CHNE nor in this project.

**5: Evidence Base intervention:**

(1) Randomized Control Trial (RCT) level evidence

A variety of levels of evidence exist for each specific clinical condition or choice of ALTO agent. RCTs and less-than-RCT evidence support many ALTO practices. The Colorado ACEP opioid Prescribing and Treatment Guidelines (1) are an excellent source of evidence synthesis.

One study’s objective was to calculate the impact of evidence-based clinical decision support tools integrated directly into provider workflow in the electronic health record on utilization of computed tomography (CT) brain, C-spine, and pulmonary embolism (PE) (2). Validated, well-accepted scoring tools for head injury, C-spine injury, and PE were embedded into the electronic health record in a manner minimally disruptive to provider workflow (2). This was a longitudinal, before/after study in five emergency departments (EDs) in a healthcare system with a common electronic health record. The main outcome measure was proportion of CTs ordered by provider (total number of CT scans of a given type divided by total patients seen by that provider) in aggregate in the pre-intervention and post-intervention period (2).

This study resulted in 235,858 total patient visits analyzed with an absolute decrease of 6,106 CT scan ordering for the three studies. Across all sites, there was greater than 6% decrease in utilization of CT brain and CT C-spine (2). For all CT types, high utilizers in the pre-intervention period decreased usage over 14% in the post-intervention period with CT brain, and CT PE (2). In summation, the embedded clinical decision support is associated with decreased overall utilization of high-cost imaging, especially among higher utilizers. Hence, integrating this resource into the provider workflow promotes usage of validated tools across providers, which can standardize the delivery of care and improve compliance with evidence-based guidelines (2).

As electronic health records evolve, integration of computerized clinical decision support offers the promise of sorting, collecting, and presenting this information to improve patient care. This study conducted a systematic review to examine the scope and influence of electronic health record-integrated clinical decision support technologies implemented in the emergency department (ED). Thus, studies were included if they examined the effect of a decision support intervention that was implemented in a comprehensive electronic health record in the ED setting (3).

Common targets for clinical decision support intervention included medication and radiology ordering practices, as well as more comprehensive systems supporting diagnosis and treatment for specific disease entities. The majority of studies (83%) reported positive effects on outcomes studied. Most studies (76%) used a pre-post experimental design, with only 3 (7%) randomized controlled trials (3). Consequently, numerous studies suggest that clinical decision support interventions are effective in changing physician practice with respect to process outcomes such as guideline adherence (3).

Use of embedded pathways is supported by best practices with less-than-RCT evidence, including:

1. Link: <https://coacep.org/docs/COACEP_Opioid_Guidelines-Final.pdf>
2. Bookman K, West D, Ginde A, Wiler J, McIntyre R, Hammes A, Carlson N, Steinbruner D, Solley M, Zane R. Embedded Clinical Decision Support in Electronic Health Record Decreases Use of High‐cost Imaging in the Emergency Department: Emb ED study. Academic Emergency Medicine. 2017 Jul;24(7):839-45.
   1. Link: <https://www.ncbi.nlm.nih.gov/pubmed/28391603>
3. Patterson BW, Pulia MS, Ravi S, Hoonakker PL, Hundt AS, Wiegmann D, Wirkus EJ, Johnson S, Carayon P. Scope and Influence of Electronic Health Record–Integrated Clinical Decision Support in the Emergency Department: A Systematic Review. Annals of emergency medicine. 2019 Aug 1;74(2):285-96.
   1. Link: <https://www.ncbi.nlm.nih.gov/pubmed/30611639>

**6: Intersection with Statewide Initiatives:**

* Yes
* **If yes, select from list:**
  + [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
  + [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
  + [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
  + [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
  + [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
  + [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
  + Rx Tool
  + [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
  + [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
  + [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
  + [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
  + Crisis Intervention
  + [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
  + Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Behavioral Health Task Force
* Affordability Road Map
* Accountable Care Collaborative (ACC) Phase II
* Rx Tool
* SUD Waiver

Health Care Policy & Finance enabled hospitals to organically align with the aforementioned statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the long run. Ideally, that partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

Governor Jared Polis directed the Colorado Department of Human Services to spearhead Colorado’s Behavioral Health Task Force. The mission of the task force is to evaluate and set the roadmap to improve the current behavioral health system in the state. This includes developing Colorado’s “Behavioral Health Blueprint” by June 2020, with anticipated implementation of recommendations starting in July 2020. The goals of the blueprint are highlighted below, and this statewide initiative demonstrates alignment with the intervention. Based upon our goal leverage the ALTOs in the Emergency Department, we believe the goal to transform behavioral health by identifying systemic gaps will allow for natural alignment between the two initiatives.

* Working with the legislature and relevant agencies to evaluate current funding streams and to recommend financing, administrative changes and savings measures and changes to ensure the behavioral health system is transformed into an integrated, accessible, accountable, efficient and high-quality behavioral health care system;
* Identifying systemic gaps and enhancements in access to behavioral health services, especially for vulnerable or underserved populations, including those experiencing intellectual and developmental disabilities; and
* Evaluating, recommending, and adopting proven strategies to drive efficiency and desired results.

In accordance with House Bill 18-1136, the Department of Health Care Policy and Financing (Department) will be working to provide the full continuum of Substance Use Disorder (SUD) benefits to Health First Colorado (Colorado’s Medicaid program) members. The Department will be adding the inpatient and residential components, including withdrawal management, to the continuum of outpatient SUD services currently available. The Department’s objective is to make these services available for individuals who meet nationally recognized evidence-based level of care criteria without shifting care from outpatient settings when they are more appropriate. We believe the SUD Waiver organically aligns with the intervention as this ongoing initiative is embedded within the Hospital Transformation Program.

Furthermore, the Rx Tool is the new physician prescriber tool that state is working on. It will offer prescribers cost insights on Rx alternatives by payer, available health improvement programs that can complement or avoid drug therapy, and insights into patient-specific addiction risk as hospital’s consider opioid therapy and alternatives. We believe by utilizing this tool, it could benefit and align with the alternatives to opioids in the Emergency Department quality measure. Essentially, we could leverage this tool to consider alternatives and adopt health improvement programs related to opioids.

**7: Intervention Historical Experience**

UCHealth and our affiliated community partner(s) have experience with this particular intervention and target population and have deployed it in the production clinical environment across the entire Emergency Medicine Service Line. We are proud of the proactive approach UCHealth has taken to address substance abuse and the opioid epidemic. Last year we began a broad campaign to educate our patients, visitors and staff about the risks of opioids. This included a dedicated webpage, resources for our staff and providers, a public landing page and signage in our locations. In 2017, UCHealth was one of the first health systems in the nation to institute a random drug testing program for all staff and providers who have access to controlled substances. In addition, UCHealth has offered substance abuse treatment, dedicated pain centers, and public education for many years. A new campaign formed in recent months designed to keep our patients, staff and providers safe. Across the nation, hospitals, pharmacies and other health-related industries battle substance abuse, and at times, diversion. Studies in the United States have shown that 10-15% of all health care professionals will misuse substances at some point during their lifetimes. While UCHealth’s rates of positive drug screens are low, we cannot pretend that we are immune to substance abuse. Everyone needs to know the signs of substance abuse. We have shared materials in staff areas throughout UCHealth encouraging our employees to say something if they see something. Furthermore, we will continue to encourage employees to talk to their supervisor, human resources or contact the UCHealth Integrity Helpline if there are concerns that a colleague may be struggling with substance abuse. Leadership has personally encouraged our employees to step forward and get help if one has issues with substance abuse.

**8: Existing Intervention Rationale**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

**Existing:** UCHealth selected an existing intervention because it is the best approach for meeting the community needs identified in the Community Health Neighborhood Engagement process. This approach is ideal due to the intervention shifting towards preferential use of alternatives to opioids (ALTOs) in the emergency departments (EDs) centers around standardized care pathways for common painful conditions developed and approved in an interprofessional and multidisciplinary committee. For many conditions commonly treated in EDs, ample scientific evidence support an ALTO-first approach, and risks of opioids demonstrably outweigh their benefits for some conditions (examples include migraine headache, back pain, and musculoskeletal pain). Furthermore, Health Care Policy & Financing encouraged all hospitals with 26 beds or more to participate in this statewide effort in order to address the quality measure. UCHealth believes with this momentum among the evidence base that suggests by implementing this intervention, the quality measure should be addressed as well. This existing intervention will be enhanced to meet the HTP goals via pathway updates occurring as-needed, based on evidence changes, operational modifications, or other factors as we gain experience. Each is also reviewed every two years for new evidence by the multidisciplinary committee. In general, modifications of the intervention may need to occur in the future due to evolving needs of our staff, community, and patients or as scientific evidence is updated.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

* **Community organization addressing Social Determinants of Health (SDOH)**
* **Primary Care Medical Provider (PCMP)**
* **Mental Health Center**
* **Consumer Advocates/Advocacy Organizations**
* **Federally Qualified Health Center (FQHC)**
* **Health Alliance**
* **Local Public Health Agency (LPHA)**
* **Long Term Support Services (LTSS)**
* **Regional Accountable Entity (RAE)**
* **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** No

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| N/A | N/A | N/A | N/A |

**BH1: SBIRT in ED**

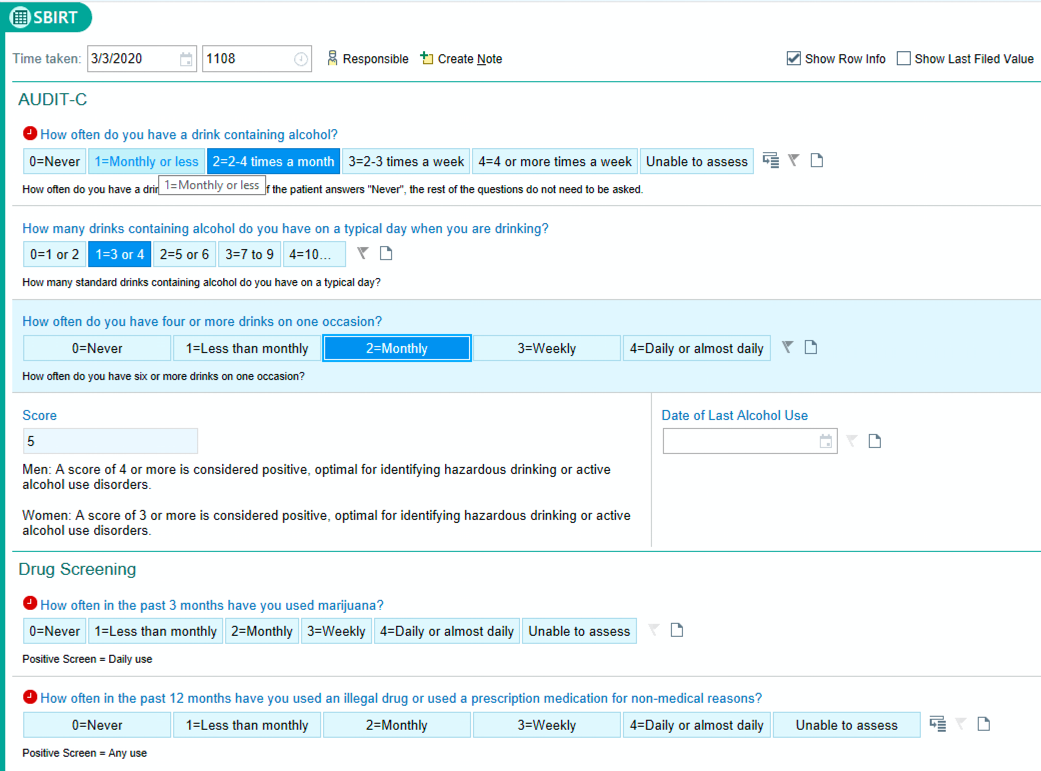
**1**: **Name of Intervention:** SBIRT in ED

**2**: **Measure Selection:** BH1 – Screening, Brief Intervention, Referral and Treatment (SBIRT) in the emergency department (ED)

**3: Intervention Description & Rationale**

Intervention Description: The intervention entails offering a Screening, Brief Intervention, Referral and Treatment (SBIRT) in emergency department (EDs) for patients at risk of alcohol abuse or other substance use disorders. SBIRT is performed universally on trauma patients and is offered for all other patients with the exception of some very low-acuity patients seen and discharged by an intake physician without a nurse assessment or intervention in large EDs utilizing split-flow. Traditionally, this is performed on individual patients, face to face.

SBIRT screening forms are integrated into the electronic health record (EHR) workflows as part of usual ED nursing care. Clinical decision support rules running in the background help remind staff to complete the SBIRT for high-risk patients, and EHR automation helps to communicate positive results with ED Care Management staff for follow-up and intervention.Furthermore, ED nursing staff routinely perform intake assessments on new patients, and that workflow integrates SBIRT screening tools. Cascading logic prompts follow-up questions as needed, and automated scoring systems help calculate overall risk and drive intervention actions.



Many intervention and referral options are available, depending on the patient’s needs and the local ED context. For opioid use disorders, buprenorphine initiation is one option available in most EDs. Local detox and substance use resources are also a follow-up option for alcohol use disorders and other substance use disorders. Social workers are often able to schedule follow-up appointments within a few days, and for buprenorphine in particular, follow-up is established definitively prior to the patient leaving the ED. In general, follow-up may occur with our anticipated community partners.

ED nurses serve as the front-line screening workforce, integrating SBIRT into their usual intake assessment workflows in the ED. Brief interventions and referrals are provided by ED Care Management staff, which consist of social workers, nurse care managers, patient navigators, behavioral health evaluators, and other providers, depending on the context.

With expanding access to community resources, the SBIRT program continuously adjusts referral options. Incremental improvements in the EHR-embedded screening forms are made based on experience and user feedback and as new evidence emerges. In general, modifications of the intervention may need to occur in the future due to evolving needs of our staff, community, and patients alike.

Intervention Rationale**:** We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we are highlighting the collaboration among our community partners via data sharing and analytics, evidence-based care coordination and care transitions, integrated physical and behavioral health care delivery, chronic care management, and community-based population health and disparities reduction efforts.

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

1. The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention. Residential and outpatient substance use treatment services were identified as especially limited, even more so for individuals with both behavioral health (mental health and substance use) and physical health concerns, or individuals who also have developmental or intellectual disabilities. There is lack of care coordination between complex Medicaid members receiving Home and Community Based Services and primary care, hospital and post-acute care networks. We have found that one of the most frequently identified community-wide priority areas is behavioral health, which includes mental health and substance use disorders and care transitions. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs. Medicaid is the single largest payer in the U.S. for behavioral health disorders, including mental health and substance use disorders. Individualsin a hospital emergency department or inpatient bed represent a“captive audience.” The ideal coordination of care for successful transitions is a face-to face interaction between a patient and a community external provider or organization before that patient is discharged from the emergency department or hospital. However, this is not always possible due to the volumes of patients needing services. Partners described the challenges, difficulties, and time required to connect with or find, patients with whom they did not meet or speak before discharge. This lowers the likelihood that patients will receive the care and supports needed to avoid a readmission or emergency department visit. As a result, it is imperative to continue to leverage the SBIRT in the Emergency Department to best address this Medicaid patient population.

2. These results of our research illuminated the core population to include patients with chronic and complex health conditions who have mental health and substance abuse issues.

**UCHealth: University of Colorado-Anschutz Medical Campus (AMC)** is a large academic medical center located in the city of Aurora. Most partners shared that behavioral health services are limited. Residential and outpatient substance use treatment services were identified as especially limited, even more so for individuals with both behavioral health (mental health and substance use) and physical health concerns, or individuals who also have developmental or intellectual disabilities. Of all patients who utilized the UCHealth University of Colorado-Anschutz Hospital, those with Medicaid insurance were 4.7 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. 9.4% of adults ages 18 years and older in the Denver metro area reported binge drinking in the past 30 days’ average, compared to the three hospital service area counties: Adams (17.2%), Arapahoe (17.4%), and Denver (25.6%). In 2017, Adams County residents had the highest rates of age-adjusted death rates of any opioid analgesic death, compared to residents of Arapahoe and Denver counties. Denver metro area, Denver County and Adams County had the highest heroin-related overdose deaths. Alcohol abuse was the most common APR DRG diagnosis for Medicaid high utilizers living in RAE 5 and RAE 6 who used hospital services. Alcohol abuse ranks in the top five reasons for an Emergency Department visits. The most prevalent chronic diseases of Medicaid high utilizers at UCH-AMC were substance use disorders, with alcohol use disorder being the second most common ED diagnosis. Partners shared concerns that alcohol was a significant health challenge for many individuals, including the HTP priority populations. The most common reason for ED use by homeless individuals with Medicaid were alcohol related disorders, followed by suicidal ideation or attempt, and substance disorders.

**UCHealth Yampa Valley Medical Center** is a rural hospital located in Routt County. Alcohol-related disorders were identified as the top substance use disorder in our hospital service area, accounting for 55% of all visits to Emergency Department for those who have one or more substance use disorder co-morbidity. Alcohol abuse and dependence diagnostic code was the leading cause of hospital admissions for Medicaid members with chronic conditions. Routt County is in the lowest quartile for ED visits related to prescription opioids (4.1-9.8 visits per 100,000 residents) and hospitalizations related to prescription opioids (5.1-10.9 hospital admissions per 100,000 residents). However, Routt County had the second highest rate of age-adjusted opioid-related deaths (6.7-9.6 deaths per 100,000 residents). In evaluating Yampa Valley Medical Center’s electronic health record data, Medicaid individuals with a mental health disorder utilized the hospital most commonly for alcohol-related disorders, mood disorders, and anxiety disorders. The alcohol related disorders were the primary reason for hospital admission for Medicaid members with mental health disorders. Mood disorders were the primary reason for Medicaid members with mental health disorders utilizing the ED. Medicaid members who used Yampa Valley Medical Center had one or more mental health disorders and accounted for 179 visits over a period of six months. Routt County has lower rates of depression (12.8%) and anxiety (1.9%) when compared with the state of Colorado (18.4% and 16.4% respectively). In assessing the UCHealth electronic health record, we found that approximately 8.6% of all Yampa Valley Medical Center Medicaid covered visits were for individuals with one or more substance use disorders. Alcohol related disorders are the 4th and 8th leading cause of emergency department utilization for those with Medicaid insurance and all payers. Several community stakeholders mentioned there is poor access to limited mental health and substance use disorder services for those who live in Routt County. There are currently no detoxification centers available for Routt County residents with Medicaid insurance.

**UCHealth Poudre Valley Hospital** serves Larimer County and Weld County. Larimer and Weld county have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Seventy-three percent of all patients with opioid use disorders also have mental health disorder diagnoses. Furthermore, 30% of patients with opioid use disorder had co-occurring alcohol use disorder, and 12% were homeless. Of all patients who utilized UCHealth Poudre Valley Hospital, those with Medicaid insurance were two times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. The top diagnosis associated with hospital use by Medicaid high utilizers at UCHealth Poudre Valley Hospital was alcohol-related disorders. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Community organizations stressed the need for mental health and substance use disorder services

**UCHealth Pikes Peak Regional Hospital** is a critical access hospital located in Teller County. Teller County residents with a mental health diagnosis contributed to 9.1% of all inpatient and ED visits. This rate was slightly higher for Medicaid Teller residents (10.3%) who utilized a~~n~~ UCHealth hospital. Teller County has one of the highest prescription opioid-related ED visit rates (18.1 and 96.0 per 100,000 residents), prescription opioid-related hospitalizations (24.9-59.7 per 100,000 residents), and opioid-related deaths (9.0-13.5 per 100,000) in the state of Colorado. Teller County has higher rates of depression (21.2%) and anxiety (21.6%) when compared with the state of Colorado (18.4%). There is a shortage of mental health providers in Teller County. There are no local inpatient psychiatric hospitals or detoxification units. Medicaid members with an acute exacerbation of their mental illness who require an inpatient psychiatric stay are evaluated by the local emergency services company in collaboration with the hospital via a paramedicine program. Medicaid members with a desire for recovery and seeking detox services also must travel to Colorado Springs for care.

UCHealth Memorial Hospital: Most of its UCHealth Memorial Hospital’s users resided in El Paso County. In El Paso county, the two leading causes of death are suicide and accidents among residents between the ages of 1 and 44 years. El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively. The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000 residents). Of all suicides in El Paso County, 74% percent were gun deaths.  El Paso County has higher rates of alcohol-impaired driving deaths (42%) compared to 34% in the state of Colorado.  Almost 80% of all high health care utilizers also had chronic mental health or substance use disorder.  Of the patients who utilized UCHealth Memorial Hospital, those with Medicaid insurance were 8.3 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance.  In addition, those with Medicaid insurance were 3.5 times more likely to use the hospital for suicidal ideation or attempt. According to the state of Colorado’s Medicaid dataset, the alcohol abuse and dependence diagnostic related code was the leading cause of hospital admissions for several Medicaid members with chronic conditions. According to RAE seven, the number one potentially avoidable cost was hospitalization related to an alcohol use disorder.  The most prevalent chronic diseases of Medicaid high utilizers at UCHealth Memorial Hospital are mental health and substance use disorder. Medicaid top utilizer reason for ED utilization reason at UCHealth Memorial Hospital was alcohol-related disorders. In 2016, there were 476,242 opioid prescriptions dispensed to 130,541 El Paso County residents. Most opioid prescriptions were covered by commercial insurance, followed by Medicaid and Medicare. El Paso County has one of the highest rates of prescription opioid-related emergency department visit (20.2 per 100,000 population), prescription opioid-related hospitalizations (15.3 per 100,000 population), and opioid-related deaths (5.8 per 100,000 population) in the state of Colorado. In 2017, there were 101 substance use treatment admissions for those with heroin addiction, which is a much lower rate than the state of Colorado (134.3 admissions per 100,000 population). According to the SAMSHA buprenorphine provider locator, there are 59 medical providers able to prescribe buprenorphine, a medicine used to treat opioid use disorder. There is a shortage of mental health providers in El Paso County. For every mental health provider in El Paso County, there are 340 residents when compared to the state of Colorado where for every mental health provider there are 300 residents.

The geographic area served by **UCHealth Medical Center of the Rockies** includes Weld and Larimer counties. Larimer County and Weld County have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high-utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Medical Center of the Rockies, those with Medicaid insurance were 2.6 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, this population is 20% more likely to use the hospital for suicidal ideation or attempt. Nearly 12% of all patients using UCHealth Medical Center of the Rockies hospital had one or more mental health diagnoses. The top reasons for hospital visits for high utilizers were substance-related disorders and abdominal pain. According to the UCHealth Medical Center of the Rockies, mental health and substance use disorder services are the top required specialties in Larimer County. In 2016, there were 459,249 opioid prescriptions dispensed to Larimer County residents. Opioids represented half of all prescriptions dispensed, and benzodiazepines represented about a quarter of prescriptions. Larimer County had 131 prescription opioid-related emergency department visits rates, 219 prescription opioid-related hospitalizations, and the 12th highest opioid-related deaths.

In total, 1,142 hospital users had opioid use disorders. Of those, 33.5% had Medicare insurance, 44.9% had Medicaid, and 17.1% had commercial insurance. Of the 360 Medicaid UCHealth hospital users with opioid use disorder, 141 were high utilizers and accounted for 392 UCHealth Medical Center of the Rockies hospital visits. The UCHealth Medical Center of the Rockies data suggests that 24.8% of all patients with opioid use disorders also had a mental health disorder comorbidity. Furthermore, 64.5% of Medicaid members with opioid use disorder had co-occurring alcohol use disorder, and 5.6% were homeless. According to the SAMSHA buprenorphine provider locator, there are 47 medical providers able to prescribe buprenorphine, a medicine used to treat opioid use disorder. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

The geographic area served by **UCHealth Greeley Hospital** is Weld County. Weld County has high rates of residents with mental health and substance use disorders. The top areas of avoidable care were for substance use disorders. Psychiatry services utilize telehealth for inpatient psychiatric consultations. Weld County had one of the lower rates of opioid-related emergency department visits across the state. In Weld County, 11.2 people per 100,000 were seen and treated in an ER due to prescription opioids, compared to 15.2 in Colorado. However, there were 183 hospitalizations in Weld County related to prescription opioids. The prescription opioid-related hospitalizations (22.6 per 100,000 residents) in Weld County were higher than Colorado (18.6). Weld County had the 17th highest opioid-related death rate (6 per 100,000) in the state of Colorado. For every mental health provider in in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

**UCHealth Grandview Hospital** has a geographic area in is El Paso county. In El Paso county, the top two leading causes of death are suicide and accidents among residents between the ages of 1 and 44 years. Almost 80% of all high utilizers also had a chronic mental health or substance use disorder. El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively). The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000). Of suicides in El Paso County, 74% percent were gun deaths. Of all patients who utilized UCHealth Grandview Hospital, those with Medicaid insurance were 4.7 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. In total, 0.9% of all encounters for individuals with one or more mental health disorders were for suicide ideation or attempt. Ofpatients who utilized UCHealth Grandview Hospital, those with Medicaid insurance were 2.2 times more likely to utilize the hospital for suicidal ideation or attempt when compared to patients with commercial insurance. In 2016, there were 476,242 opioid prescriptions dispensed to 130,541 El Paso County residents. Most opioid prescriptions were covered by commercial insurance, followed by Medicaid and Medicare. El Paso County has one of the highest rates of prescription opioid-related emergency department visit (20.2 per 100,000 population), prescription opioid-related hospitalizations (15.3 per 100,000 population), and opioid-related deaths (5.8 per 100,000 population) in the state of Colorado. In 2017, there were 101 substance use treatment admissions for those with heroin addiction, which is a much lower rate than the state of Colorado (134.3 admissions per 100,000 population). According to the SAMSHA buprenorphine provider locator, there are 59 medical providers able to prescribe buprenorphine, a medicine used to treat opioid use disorder.

There is a shortage of mental health providers in El Paso County. For every mental health provider in El Paso County, there are 340 residents when compared to the state of Colorado where for every mental health provider there are 300 residents.

The geographic area served by **UCHealth Broomfield Hospital** is Jefferson and Broomfield Counties and the Denver Metro area. Of the patients who utilized UCHealth Broomfield Hospital, those with Medicaid insurance were 3.4 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that had commercial insurance. Medicaid patients were 10.3 times more likely to use the hospital for suicidal ideation or attempt, when compared to patients with commercial insurance. Of Medicaid ED high utilizers, 16% had one or more mental health disorders, a percentage had alcohol use disorder, and 5.1% had opioid use disorder. Most partners shared that behavioral health services are limited – although one partner shared that even when service capacity is increased, it is quickly filled, suggesting it may be difficult to provide enough services to meet demand. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

3. Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. Our intervention includes developing a process for care management to identify patients with behavioral health and substance abuse disorders at the time of emergency room presentations or hospitalizations and evaluating patient engagement opportunities. We will continue to use the Screening Brief Intervention Referral to Treatment (SBIRT) in Emergency Room and for hospitalized patients to identify substance abuse issues.

**5: Evidence Base intervention:**

(1) Randomized Control Trial (RCT) level evidence

Alcohol use disorders (AUD) place a noteworthy burden on people and society as a whole. The emergency department (ED) offers a distinct opportunity to address AUD with brief screening tools and early intervention. This study undertook a systematic review of the effectiveness of ED brief interventions for patients identified through screening who are at risk for AUD, and the effectiveness of these interventions at reducing alcohol intake and preventing alcohol-related injuries (1). Hence, systematic electronic database searches included randomized controlled trials of AUD screening, brief intervention, referral, and treatment (SBIRT), from January 1966 to April 2016.

This study located 35 articles that had direct relevance to the ED with enrolled patients ranging from 12 to 70 years of age. Multiple alcohol screening tools were used to identify patients at risk for AUD. Brief intervention (BI) and brief motivational intervention (BMI) strategies were compared to a control intervention or usual care. Thirteen studies enrolling a total of 5,261 participants reported significant differences between control and intervention groups in their main alcohol-outcome criteria of number of drink days and number of units per drink day (1). Sixteen studies showed a reduction of alcohol consumption in both the control and intervention groups; of those, seven studies did not identify a significant intervention effect for the main outcome criteria, but nine observed some significant differences between BI and control conditions for specific subgroups (i.e., adolescents and adolescents with prior history of drinking and driving; women 22 years old or younger; low or moderate drinkers); or secondary outcome criteria (e.g. reduction in driving while intoxicated) (1).

In summary, moderate-quality evidence of targeted use of BI/BMI in the ED showed a small reduction in alcohol use in low or moderate drinkers, a reduction in the negative consequences of use (such as injury), and a decline in ED repeat visits for adults and children 12 years of age and older. BI delivered in the ED appears to have a short-term effect in reducing at-risk drinking (1).

Similarly, another study evaluated the methodological adequacy of emergency department (ED)-based interventions for alcohol issues and to complete a meta-analysis to examine the extent to which interventions in this setting are effective in reducing alcohol consumption and related harm (2). Therefore, studies evaluating the outcome of an intervention designed to reduce alcohol complications in patients presenting to the ED were eligible for inclusion.

Thirteen studies were identified for inclusion in the review. Meta-analyses revealed that interventions did not significantly reduce subsequent alcohol consumption, but were associated with approximately half the odds of experiencing an alcohol-related injury (odds ratio = 0.59, 95% confidence interval 0.42-0.84) (2). To conclude, the existing evidence suggests that interventions are effective in reducing subsequent alcohol-related injuries (2).

Randomized Control Trial (RCT) level evidence is synthesized in these systematic reviews:

1. Barata IA, Shandro JR, Montgomery M, Polansky R, Sachs CJ, Duber HC, Weaver LM, Heins A, Owen HS, Josephson EB, Macias-Konstantopoulos W. Effectiveness of SBIRT for alcohol use disorders in the emergency department: a systematic review. Western journal of emergency medicine. 2017 Oct;18(6):1143.
   1. Link: <https://www.ncbi.nlm.nih.gov/pubmed/29085549>
2. Havard A, Shakeshaft A, Sanson‐Fisher R. Systematic review and meta‐analyses of strategies targeting alcohol problems in emergency departments: interventions reduce alcohol‐related injuries. Addiction. 2008 Mar;103(3):368-76.
   1. Link: <https://www.ncbi.nlm.nih.gov/pubmed/18190671>

**6: Intersection with Statewide Initiatives:**

* Yes
* **If yes, select from list:**
  + [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
  + [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
  + [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
  + [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
  + [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
  + [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
  + Rx Tool
  + [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
  + [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
  + [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
  + [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
  + Crisis Intervention
  + [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
  + Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Behavioral Health Task Force
* Affordability Road Map
* Accountable Care Collaborative (ACC) Phase II
* Rx Tool
* SUD Waiver

Health Care Policy & Finance enabled hospitals to organically align with the aforementioned statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the long run. Ideally, that partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

Governor Jared Polis directed the Colorado Department of Human Services to spearhead Colorado’s Behavioral Health Task Force. The mission of the task force is to evaluate and set the roadmap to improve the current behavioral health system in the state. This includes developing Colorado’s “Behavioral Health Blueprint” by June 2020, with anticipated implementation of recommendations starting in July 2020. The goals of the blueprint are highlighted below, and this statewide initiative demonstrates alignment with the intervention. Based upon our goal leverage the SBIRT in the Emergency Department, we believe the goal to transform behavioral health by identifying systemic gaps will allow for natural alignment between the two initiatives.

* Working with the legislature and relevant agencies to evaluate current funding streams and to recommend financing, administrative changes and savings measures and changes to ensure the behavioral health system is transformed into an integrated, accessible, accountable, efficient and high-quality behavioral health care system;
* Identifying systemic gaps and enhancements in access to behavioral health services, especially for vulnerable or underserved populations, including those experiencing intellectual and developmental disabilities; and
* Evaluating, recommending, and adopting proven strategies to drive efficiency and desired results.

In accordance with House Bill 18-1136, the Department of Health Care Policy and Financing (Department) will be working to provide the full continuum of Substance Use Disorder (SUD) benefits to Health First Colorado (Colorado’s Medicaid program) members. The Department will be adding the inpatient and residential components, including withdrawal management, to the continuum of outpatient SUD services currently available. The Department’s objective is to make these services available for individuals who meet nationally recognized evidence-based level of care criteria without shifting care from outpatient settings when they are more appropriate. We believe the SUD Waiver organically aligns with the intervention as this ongoing initiative is embedded within the Hospital Transformation Program.

Furthermore, the Rx Tool is the new physician prescriber tool that state is working on. It will offer prescribers cost insights on Rx alternatives by payer, available health improvement programs that can complement or avoid drug therapy, and insights into patient-specific addiction risk as hospital’s consider opioid therapy and alternatives. We believe by utilizing this tool, it could benefit and align with the alternatives to opioids in the Emergency Department quality measure. Essentially, we could leverage this tool to consider alternatives and adopt health improvement programs related to opioids.

**7: Intervention Historical Experience**

UCHealth and our affiliated community partners have experience with this particular approach, although its scope has expanded over the years. Furthermore, the core behavioral health population had been a prioritized among UCHealth and its affiliated partners. We are proud of the proactive approach UCHealth has taken to address substance abuse and the opioid epidemic. Last year we began a broad campaign to educate our patients, visitors and staff about the risks of opioids. This included a dedicated webpage, resources for our staff and providers, a public landing page and signage in our locations. In 2017, UCHealth was one of the first health systems in the nation to institute a random drug testing program for all staff and providers who have access to controlled substances. In addition, UCHealth has offered substance abuse treatment, dedicated pain centers, and public education for many years. A new campaign formed in recent months designed to keep our patients, staff and providers safe. Across the nation, hospitals, pharmacies and other health-related industries battle substance abuse, and at times, diversion. Studies in the United States have shown that 10-15% of all health care professionals will misuse substances at some point during their lifetimes. While UCHealth’s rates of positive drug screens are low, we cannot pretend that we are immune to substance abuse. Everyone needs to know the signs of substance abuse. We have shared materials in staff areas throughout UCHealth encouraging our employees to say something if they see something. Furthermore, we will continue to encourage employees to talk to their supervisor, human resources or contact the UCHealth Integrity Helpline if there are concerns that a colleague may be struggling with substance abuse. Leadership has personally encouraged our employees to step forward and get help if one has issues with substance abuse.

**8: Existing Intervention Rationale**

**Existing:** UCHealth selected an existing intervention because it is the best approach for meeting the community needs identified in the Community Health Neighborhood Engagement process. This approach is ideal due to its expansive reach across the majority of ED patients and its integration into existing workflows. This existing intervention will be enhanced to meet the HTP goals by continuing to add community partners and continuing to analyze data to support modifications to the SBIRT program, including assessing additions to local resources, expanding buprenorphine use for opioid use disorders, and enhancing staff training.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** Yes

**If yes, identify partner and provide documentation such as letter of partnership, MOU or BAA.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| STRIDE\* UCH | Federally Qualified Health Center | Yes | Based on the screening and brief intervention offered at UCHealth’s Emergency Department, STRIDE accepts referrals in order to provide treatment to the Medicaid patient population. Medication assisted treatment program is offered which enables STRIDE to schedule patients to see a substance use counselor. |
| Addiction Research & Treatment Services (ARTS) \*UCH | Mental Health Center | Yes | Based on the screening and brief intervention offered at UCHealth’s Emergency Department, ARTS accepts referrals in order to provide treatment to the Medicaid patient population. Medication assisted treatment program is offered which enables ARTS to schedule patients to see a substance use counselor. |
| East Metro Detox (Aurora Mental Health) \*UCH | Mental Health Center | Yes | Based on the screening and brief intervention offered at UCHealth’s Emergency Department, East Metro Detox accepts referrals in order to provide treatment to the Medicaid patient population. East Metro Detox provides a safe place for adults to detox recover and explore further treatment options. |

**SW-COE1: Potentially Avoidable Costs**

**1. Name of Intervention:** Potentially Avoidable Cost Program

**2. Measure Selection:** SW-COE1 - Hospital Index

**3: Intervention Description & Rationale**

**Intervention Description components:**

1. **Brief Name**
2. **Rationale**
3. **Materials (physical/informational used in intervention) and where can it be accessed**
4. **Procedures (activities/processes used in intervention)**
5. **Intervention Provider (who provided intervention): describe expertise, background, specific training**
6. **Modes of Delivery (F2F, phone) of intervention & provided individually vs group**
7. **Location of intervention (infrastructure/features required)**
8. **When and how many times the intervention was delivered (over course of year)**
9. **Intervention tailored (if so, what, why, when, how?)**
10. **Modifications (if modified later, describe): insert standard language**

Intervention Description: The intervention selected to address potentially avoidable costs entails establishing a Potentially Avoidable Costs (PAC) Program to address cost of care for the Medicaid population. The PAC will complete its work through a new PAC Committee (PACC). The PACC will be chartered at the UCHealth system level and include representatives of all system entities. The work of the PACC will be executed at the system or local hospital level, as appropriate.

We will take a three-step approach to build a program to address potentially avoidable costs: governance, structure and process. The first step, or governance phase, will consist of charter creation, stakeholder engagement and committee empanelment. Specifically, the UCHealth Chief Quality Officer will craft the Potentially Avoidable Costs Committee (PACC) charter to formally authorize the existence and provide a reference source for the future. The charter will provide direction and a sense of purpose to the chairperson and the committee members. The PACC will have executive sponsorship by the UCHealth Chief Quality Officer reporting through the UCHealth Senior Executive Group to the UCHealth Board of Directors (1, 2, 3).

The second step, or structure phase, will create the structure for management of the program. This will start with convening the PACC, which will include membership from all UCHealth entities. The PACC will utilize PROMETHEUS Analytics data to understand our key areas of opportunity. PROMETHEUS Analytics uses claims data to analyze episodes of medical care and uncover opportunities for UCHealth to improve value to the state’s Medicaid patients. The tool can be used to evaluate provider performance, identify care variations, and improve efficiency. These data will be supplemented by data from Vizient, a national collaboration of health systems and hospitals to share data to drive performance improvement, and Epic to further understand our opportunities (4). The diagnoses and procedures with the highest impact on the Hospital Index will be prioritized. Where commonalities exist, we will work to develop health system- and local-level interventions. However, we suspect that most of the opportunities will exist at and be intervened upon at the individual hospital level.

The third step, or process phase, will involve creating the process for driving change. The PACC will identify the key drivers of performance and create task forces for each core opportunity. Understanding our current state and performing a gap analysis based upon the drivers will allow UCHealth to develop a driver diagram. A driver diagram is a tool that helps translate a high-level improvement goal into a logical set of underpinning goals. It captures an entire change program in a single diagram and provides a measurement framework for monitoring progress. A result of the driver diagram is to define a system to improve and the causal variables that drive the outcomes. Clearly defining an aim and its drivers enables a team to have a shared view of the theory of change in a system. Once there is a mutual understanding of the areas of opportunity and drivers, the PACC will identify the appropriate parties to initiate, plan and implement quality improvement projects utilizing the DMAIC framework for quality improvement. DMAIC is a Six Sigma construct aimed at reducing variability in care. The five steps include **D**efining, **M**easuring and **A**nalyzing the problem, implementing **I**nterventions aimed at improvement and finally, putting the process into a **C**ontrol, or sustain phase (3).

Intervention Rationale: We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring a focus on healthcare costs and value to our Medicaid patients. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we believe there is a possibility in the future to highlight the collaboration among our community partners via data sharing and analytics, evidence-based care coordination and care transitions, and/or chronic care management.

Citations:

1. Hospital Board Oversight of Quality and Patient Safety: A Narrative Review and Synthesis of Recent Empirical Research

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3876189/>

1. How do hospital boards govern for quality improvement? A mixed methods study of 15 organisations in England

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5750431/>

1. Ways to Approach the Quality Improvement Process

<https://www.ahrq.gov/cahps/quality-improvement/improvement-guide/4-approach-qi-process/sect4part2.html>

1. Vizient, Inc. website

https://www.vizientinc.com/what-we-do

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

All: The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Of note, while the community did not specifically address costs as a core problem, high cost of care (1), medical bankruptcy (1, 2, 3) and access to cost effective care are frequent national refrains (1). Nationally, approximately 60% of all bankruptcies are associated with medical care (2, 3). In the communities we serve our CNHE found elevated rates of poverty and relatively high rates of unemployment placing many of our Medicaid patients at high risk of financial hardship secondary to costs associated with healthcare. Moreover, the drivers of elevated total cost of healthcare were frequently noted as needs in our CNHE. Notably, limited access to primary care services, limited availability of long-term care facilities that accept patients with behavioral health conditions, opportunities to improve care coordination for chronic diseases, homelessness and transportation limitations, food insecurity, high-prevalence of opioid and other substance use disorders and lack of Medication Assisted Treatment (MAT) programs. In addition to reducing hospital harm and improving efficiency our interventions to reduce potentially avoidable costs will likely aim to address these core needs of the community and Medicaid population we serve.

**University of Colorado-Anschutz Medical Campus (UCH-AMC)** is a large academic medical center located in the city of Aurora.  Our CNHE found that our population is ill-equipped financially to burden high costs of care with approximately one third of the Denver Metro population living under 200% of the Federal Poverty Level. Similarly, unemployment rates range between 3.1% and 3.6% for the Denver metro region, higher than the state average. The occurrence of chronic physical health and behavioral health in this population was like the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. In Colorado, there are 16.9% of individuals who live with some disability, compared to the U.S. (22.5%). According to Medicaid claims, these individuals account for a large proportion of Medicaid health care costs. Furthermore, our CNHE illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For example, of all patients who utilized UCH-AMC, those with Medicaid insurance were nearly 5 times more likely to use the hospital for schizophrenia or psychotic disorder treatment. Furthermore, 9.4% of adults ages 18 years and older in the Denver metro area reported binge drinking in the past 30 days,’ compared to the three hospital service area counties: Adams (17.2%), Arapahoe (17.4%), and Denver (25.6%). Alcohol abuse ranks in the top five reasons for an Emergency Department visit.  The most prevalent chronic diseases of Medicaid high utilizers at UCH-AMC were substance use disorders, with alcohol use disorder being the second most common ED diagnosis. Partners shared concerns that alcohol was a significant health challenge for many individuals, including the HTP priority populations. The most common reason for ED use by homeless individuals with Medicaid were alcohol related disorders, followed by suicidal ideation or attempt, and substance disorders.  At last, most community partners identified gaps in the current complex care management and care coordination services.

Community partners described how low-income populations in the metro area struggle with food insecurity and its impacts on poor health outcomes. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. There are some community resources and services available to meet patients’ nutritional needs. This may include organizations like Hunger Free Colorado available to enroll patients in SNAP or WIC. Others also referenced home-delivered meals that may be available through non-profit organizations such as Project Angel Heart or meals-on-wheels. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. The overall lack of affordable housing in the metro area, including limited apartment capacity, was identified as especially acute for low-income Medicaid enrollees. Partners see people moving around frequently, which impacts whether and how they access care. This involuntary displacement may also negatively impact behavioral health. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort.

**UCHealth Highlands Ranch Hospital**encompasses the geographical area which includes Douglas County and Jefferson County residents.  Our CNHE found that our population is ill-equipped financially to burden high costs of care with approximately 8% of the Jefferson County and 15% of Douglas County population living under 200% of the Federal Poverty Level. Furthermore, unemployment rates for Jefferson and Douglas counties were nearly 3% which was comparable to the state average. The occurrence of chronic physical health and behavioral health in this population was like the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. In Colorado, there are 16.9% of individuals who live with some disability, compared to the U.S. (22.5%). According to Medicaid claims, these individuals account for a large proportion of Medicaid health care costs. Also, Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Furthermore, these results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For example, both Douglas and Jefferson counties had higher rates of depression (17.7% and 18.8%, respectively), whereas Douglas had lower rates of anxiety (13.6%) and Jefferson had higher rates of anxiety (16.5%) when compared with the state of Colorado. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

A little over half of the respondents indicated that Douglas County did not have adequate transportation options to meet the needs of low-income residents. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Pilot programs that connect individuals to ride-sharing programs such as Uber or Lyft were mentioned by a few partners as another promising strategy, especially for less-mobile populations. Subsequently, areas of opportunity indicated were 1 in 10 Jefferson County residents were food insecure in 2017. Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort. Please note, due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

**UCHealth Broomfield Hospital**serves the geographical areas of Jefferson and Broomfield Counties including parts of the Denver Metro area.  Our CNHE found that our population is ill-equipped financially to burden high costs of care with approximately one third of the Denver Metro population living under 200% of the Federal Poverty Level. Furthermore, unemployment rates for Jefferson and Broomfield counties were nearly 3% which was comparable to the state average. The occurrence of chronic physical health and behavioral health in this population was similar to the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. In Colorado, there are 16.9% of individuals who live with some disability, compared to the U.S. (22.5%). According to Medicaid claims, these individuals account for a large proportion of Medicaid health care costs. Also, Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Furthermore, these results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations.  For example, of the patients who utilized UCHealth Broomfield Hospital, those with Medicaid insurance were 3.4 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that had commercial insurance. Medicaid patients were 10.3 times more likely to use the hospital for suicidal ideation or attempt, when compared to patients with commercial insurance. Of Medicaid ED high utilizers, 16% had one or more mental health disorders, a percentage had alcohol use disorder, and 5.1% had opioid use disorder. Most partners shared that behavioral health services are limited – although one partner shared that even when service capacity is increased, it is quickly filled, suggesting it may be difficult to provide enough services to meet the demand. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

The ability to connect these social and medical services and data across different organizations to avoid duplication and provide seamless care to patients is an identified gap highlighted in the CHNE. While they may not have all the needed paperwork to complete applications for programs like SNAP or WIC, meeting someone face-to-face to discuss a program, get accurate contact information, and initiate a process was identified as a critical step in connecting people with services. Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort.

**UCHealth Longs Peak Hospital**encompasses the geographical area which includes Boulder and Weld counties.  Our CNHE found that our population is ill-equipped financially to burden high costs of care with Boulder County having 9.5% and Weld County having 15.5% of the population living under 200% of the Federal Poverty Level. Furthermore, unemployment rates for Boulder and Weld counties were nearly 3% which was comparable to the state average. The occurrence of chronic physical health and behavioral health in this population was similar to the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. In Colorado, there are 16.9% of individuals who live with some disability, compared to the U.S. (22.5%). According to Medicaid claims, these individuals account for a large proportion of Medicaid health care costs. Furthermore, these results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. In total, 41.4% and 37.2% of all its hospital users resided in Weld County and Boulder County, respectively.  Of patients who utilized UCHealth Longs Peak Hospital, those with Medicaid insurance were 2.5 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. One percent of all encounters for UCHealth Longs Peak Hospital users were for suicide ideation or attempt. Four percent of individuals with one or more mental health disorders used UCHealth Longs Peak Hospital for suicide ideation or attempt. Of patients who utilized UCHealth Longs Peak Hospital, a similar number of Medicaid and commercially insured patients used the hospital because they felt suicidal or committed a suicidal attempt. Of patients who presented to the emergency department with a suicide attempt, 6% had to be admitted to the hospital to receive medical care to treat the effects of an overdose. Among all Medicaid ED high utilizers, 24.4% had one or more mental health disorders, 8.9% had alcohol use disorder, and 3.1% had opioid use disorder. There is a surplus of mental health providers in Boulder County, but a shortage in Weld County. However, it is unclear how many Boulder County behavioral health providers accept new patients with Medicaid.

Residents and community organizations of Weld and Boulder counties noted that transportation is a challenge for Medicaid enrollees. Both counties are spread out with health centers and the hospital being centrally located. Public transportation from more remote locations to and from health centers is scarce. Transportation is a primary barrier in accessing health and social resources in Boulder and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. Lack of timely Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort.

**UCHealth Memorial Hospital** users reside in El Paso County. Our CNHE found that our population is ill-equipped financially to burden high costs of care with approximately ten percent of El Paso County population living under 200% of the Federal Poverty Level. Similarly, unemployment rate was 3.3% for El Paso County which was higher than the state average. The occurrence of chronic physical health and behavioral health in this population was similar to the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. In Colorado, there are 16.9% of individuals who live with some disability, compared to the U.S. (22.5%). According to Medicaid claims, these individuals account for a large proportion of Medicaid health care costs. Furthermore, these results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care access. For example, there is a shortage of primary care providers in El Paso County. For every primary care provider, there are 1,650 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. Furthermore, El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively). The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000 residents). El Paso County has higher rates of alcohol-impaired driving deaths (42%) compared to 34% in the state of Colorado. However, excessive drinking rates (18%) are lower to those in the state of Colorado (21%). Almost 80% of all high health care utilizers also had chronic mental health or substance use disorder.  Of the patients who utilized UCHealth Memorial Hospital, those with Medicaid insurance were 8.3 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, those with Medicaid insurance were 3.5 times more likely to use the hospital for suicidal ideation or attempt.

The community faces challenges due to geographic sprawl such as limited transportation options and employment opportunities. Affordable housing and lack of population density to support businesses and public services are community needs identified by the local public health agency. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., housing). Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort.

**UCHealth Yampa Valley Medical Center** is a rural hospital located in Routt County. Our CNHE found that our population is ill-equipped financially to burden high costs of care with approximately eleven percent of Routt County population living under 200% of the Federal Poverty Level. Furthermore, the unemployment rate for Routt County was nearly 3% which was comparable to the state average. The occurrence of chronic physical health and behavioral health in this population was similar to the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. Also, Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Furthermore, these results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For instance, alcohol-related disorders were identified as the top substance use disorder in our hospital service area, accounting for 55% of all visits for those who have one or more substance use disorder co-morbidity. Alcohol abuse and dependence diagnostic code was the leading cause of hospital admissions for several Medicaid members with chronic conditions. In evaluating Yampa Valley Medical Center’s electronic health record data, Medicaid individuals with a mental health disorder utilized the hospital most commonly for alcohol-related disorders, mood disorders, and anxiety disorders. The alcohol related disorders were the primary reason for hospital admission for Medicaid members with mental health disorders. Mood disorders were the primary reason for Medicaid members with mental health disorders utilizing the ED. Medicaid members who used Yampa Valley Medical Center had one or more mental health disorders and accounted for 179 visits over a period of six months.  Routt County has lower rates of depression (12.8%) and anxiety (1.9%) when compared with the state of Colorado (18.4% and 16.4% respectively). In assessing the UCHealth electronic health record, we found that approximately 8.6% of all Yampa Valley Medical Center Medicaid covered visits were for individuals with one or more substance use disorders. Alcohol related disorders are the 4th and 8th leading cause of emergency department utilization for those with Medicaid insurance and all payers. Several community stakeholders mentioned there is poor access to limited mental health and substance use disorder services for those who live in Routt County. There are currently no detoxification centers available for Routt County residents with Medicaid insurance.

Furthermore, Northwest Colorado Health provides home health services to all Routt County residents. In conversations with members of Northwest Colorado Health, 30-day hospital re-admission rates for Medicaid members receiving home health services are high. Reasons for these high re-admission rates included complex patient population and high social needs. Approximately, 18% of all 2019 CHNE respondents mentioned having lack of access to housing. Transportation is a major barrier, both for inter-facility transportation, as well as for Routt County residents to get to and from appointments. Gaps in primary care access are related to transportation and distance from the Medicaid enrollee's home and the PCMH. Furthermore, food insecurity came up in several conversations with community organizations. We identified community organizations that provide food delivery or food pantry services to Routt County residents. Many of those organizations are supported via donations and grants. We were unable to identify a meals-on-wheels program. Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort.

**UCHealth Medical Center of the Rockies** encompasses the geographical area which includes Weld and Larimer Counties. Our CNHE found that our population is ill-equipped financially to burden high costs of care with Larimer County having 4.9% and Weld County having 15.5% population living under 200% of the Federal Poverty Level. Furthermore, unemployment rates for Larimer and Weld counties were nearly 3% which was comparable to the state average. The occurrence of chronic physical health and behavioral health in this population was similar to the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. Furthermore, these results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care providers. Weld County has a shortage of primary care providers. For every primary care provider, there are 2,030 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. There is a high number of homeless individuals in Larimer and Weld County, yet homeless services are lacking. Also, Larimer County and Weld County have high rates of residents with mental health and substance use disorders.  The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness.  Of all patients who utilized UCHealth Medical Center of the Rockies, those with Medicaid insurance were 2.6 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, this population is 20% more likely to use the hospital for suicidal ideation or attempt. Nearly 12% of all patients using UCHealth Medical Center of the Rockies hospital had one or more mental health diagnoses. The top reasons for hospital visits for high utilizers were substance-related disorders and abdominal pain. According to the UCHealth Medical Center of the Rockies, mental health and substance use disorder services are the top required specialties in Larimer County. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort.

**UCHealth Poudre Valley Hospital** is a community hospital that serves Larimer County and Weld County. Our CNHE found that our population is ill-equipped financially to burden high costs of care with Larimer County having 4.9% and Weld County having 15.5% population living under 200% of the Federal Poverty Level. Furthermore, unemployment rates for Larimer and Weld counties were nearly 3% which was comparable to the state average. The occurrence of chronic physical health and behavioral health in this population was similar to the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. Furthermore, these results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. Larimer and Weld county have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Poudre Valley Hospital, those with Medicaid insurance were two times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. The top diagnosis associated with hospital use by Medicaid high utilizers at UCHealth Poudre Valley Hospital was alcohol-related disorders. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Community organizations stressed the need for mental health and substance use disorder services.

Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort.

**UCHealth Greeley Hospital** encompasses the geographic area which includes Weld County. Our CNHE found that our population is ill-equipped financially to burden high costs of care with Weld County having 15.5% population living under 200% of the Federal Poverty Level. Furthermore, unemployment rate Weld County was nearly 3% which was comparable to the state average. The occurrence of chronic physical health and behavioral health in this population was like the general population, but the cost associated with a Medicaid member having co-morbid physical and behavioral health is three times higher than a Medicaid member with only a physical chronic disease. Furthermore, these results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. Weld County has a shortage of primary care providers. For every primary care provider, there were 2,030 residents. Most primary care attribution comes from Weld County, where 15 of the 33 primary care practices see Medicaid members. Furthermore, Weld County has high rates of residents with mental health and substance use disorders. The top areas of avoidable care were for substance use disorders. Psychiatry services utilize telehealth for inpatient psychiatric consultations. For every mental health provider in in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

Weld County residents articulated that the four most common themes when asked what ways will enable a healthier place to live, work, and play and the social need was indicated as the following: Transportation (329 responses; 25.3%). Transportation is the main barrier to accessing health and social resources in Weld County. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Many mentioned needs related to addressing social determinants of health including, transportation, food insecurity, and DME access were items that care coordinators could support patients when making appointments with specialty providers. Addressing these psychosocial and access needs will be paramount to reducing potentially avoidable costs in this cohort. Please note, due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

All: Our preliminary resources to be leveraged to establish the governance, structural and process for reducing potentially avoidable costs will draw from our current leadership and governance models, our experience creating and executing committees and our internal data and process improvement resources. Once we engage in the process improvement phase, we are likely to utilize both medical and social resources to address the local community needs. Namely, chronic disease management, behavioral health conditions, substance use disorders, homelessness and transportation limitations.

Citations:

1) Measuring The Burden of Health Care Costs For Working Families

<https://www.healthaffairs.org/do/10.1377/hblog20190327.999531/full/>

2) Medical bankruptcy in the United States, 2007: results of a national study.

<https://www.ncbi.nlm.nih.gov/pubmed/19501347>

3) Medical Bankruptcy: Still Common Despite the Affordable Care Act

[https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2018.304901?url\_ver=Z39.88-](https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2018.304901?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub%3Dpubmed) 2003&rfr\_id=ori%3Arid%3Acrossref.org&rfr\_dat=cr\_pub%3Dpubmed

**5: Evidence Base intervention: Select One**

1. **Randomized Control Trial (RCT) level evidence**
2. **Best practice supported by less than RCT evidence**
3. **Emerging practice**
4. **No evidence**

(2) Best Practice supported by less than RCT evidence

The evidence base intervention selected entails addressing the potentially avoidable costs (PAC) across procedural episodes by utilizing PROMETHEUS Analytics (see question 3 for more details). PROMETHEUS was originally intended to be a model for bundled payment programs and the Hospital Transformation Program participants will be leveraging this software to reduce potentially avoidable complications. It was established to follow a few basic concepts:

* Compensate physicians, hospitals and health systems fairly, and reward excellence by allowing top performers to earn more;
* Offer direct and powerful incentives for providers to deliver greater value and better outcomes;
* Encourage clinicians to work in teams, share information, and take collective responsibility for a patient's health; and
* Provide a realistic framework to transform today's fragmented and inefficient system into one that is more integrated and accountable.

Utilizing PROMETHEUS helps create a culture for providers and insurers to be incentivized by doing the right thing for patients while being compensated. Ideally, this software can be leveraged without much administrative burden, nor impacting the way our patients access care at UCHealth (1).

The PROMETHEUS model uses medical records, claims data and other data to measure the quality of care delivered to patients. Measures are based on commonly accepted clinical guidelines or expert opinions that define the best methods for treating a given condition from beginning to end. The prices of all treatments are tallied to generate an Evidence-Informed Case Rate TM (ECR) creating a budget for the entire care episode within a defined time period (1). Currently, PROMETHEUS has ECRs for 21 conditions.

A reduction in potentially avoidable complications is believed to reduce costs. It is estimated that up to 20 cents of each dollar spent on acute hospitalizations and procedures in the United States are due to PACs (2). A substantial PAC allowance is calculated within each ECR. If complications occur, this allowance is used to offset costs of corrective treatment. But if providers reduce or eliminate PACs, they can potentially keep the entire allowance as a bonus (2).

An Episode of Care includes covered services spanning providers that would traditionally care for a patient’s condition. This is comprised of diagnosis, procedure and pharmacy code tables, which establish the episode’s triggers and boundaries (1). UCHealth anticipates leveraging the [episode definitions](http://prometheusanalytics.net/deeper-dive/definitions-readable) for cost and quality analysis of providers. Episode of Care definitions are a core element of the PROMETHEUS Analytics and one of their most discrete characteristic is the distinction of diagnosis codes included in the definitions that can be considered typical or routine, from those deemed to indicate a potentially avoidable complication (1). Essentially, PACs were established to manage variation in costs of care that could be tied to complications within the providers’ scope of influence and can incentivize quality analytics and reduction in costs.

Under the PROMETHEUS model, providers can continue to get paid under their current negotiated fee schedules (2). The software enables the claims to be applied against the ECR for each patient, and any difference between the actual costs and the budgeted costs may be distributed to providers based upon the hospital’s policies and procedures established. In addition to tying bonus opportunities to PAC reductions, PROMETHEUS includes incentives to reward provider performance on clinical process, outcomes of care and patient experience (2). Then, payment can be re-distributed and shared by all parties involved in this improvement process. In this way, providers are compensated for the quality of care they collectively deliver, not the number of tests or procedures they perform (2). By undergoing such a process, this intervention will impact the selected statewide measure identified in the proposed intervention.

Both delivery system transformation and payment reform concepts that fall under the Hospital Transformation Program framework are likely equally important for most hospitals to realize the potential for savings (3). For example, Geisinger Health System's Proven Care model is a combination of delivery and payment restructure in the acute care setting. In this instance, all services related to certain procedures, including preoperative, intraoperative, and postoperative care for 90 days after surgery, is included in a single price. By implementing best practices as part of their protocols they are holding the providers financially at risk for complications (3). This has resulted in a decline of 21 percent in the complication rate and a 44 percent decline in readmission rate for coronary bypass surgery in particular (3). Hence, the cited evidence base supports the use of the intervention among the anticipated targeted patient population.

The incentives in the Hospital Transformation Program, informed by PROMETHEUS Analytics, will help create the impetus for reduction in PACs; however, the ability for the hospital to achieve these reductions, and the investment cost in human and capital resources it would need, remain unknown and will be better understood as UCHealth embarks on this journey (3, 4). We believe that after the data analysis is performed and the strategy begins to emerge, then additional literature review may be necessary to ensure our targeted interventions are evidence based in order to specifically address PACs.

**Citations:**

1. Link: <http://prometheusanalytics.net/deeper-dive/potentially-avoidable-complications>
2. Link: <https://www.rwjf.org/en/library/research/2011/02/prometheus-payment/the-fundamentals-how-the-model-works.html>
3. De Brantes, Francois et al. “Reducing potentially avoidable complications in patients with chronic diseases: The Prometheus Payment approach.” *Health services research* vol. 45,6 Pt 2 (2010): 1854-71. doi:10.1111/j.1475-6773.2010.01136.x Link: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1475-6773.2010.01136.x>
4. Rastogi, Amita et al. “Prometheus payment model: application to hip and knee replacement surgery.” *Clinical orthopedics and related research* vol. 467,10 (2009): 2587-97. doi:10.1007/s11999-009-0942-3 Link: [10.1007/s11999-009-0942-3](https://dx.doi.org/10.1007%2Fs11999-009-0942-3)

**6: Intersection with Statewide Initiatives**

* Yes
* **If yes, select from list:**
* [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
* [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
* [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
* [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
* [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
* [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
* Rx Tool
* [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
* [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
* [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
* [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
* Crisis Intervention
* [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
* Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Affordability Road Map
* Accountable Care Collaborative (ACC) Phase II
* Primary Care Payment Reform

Health Care Policy & Finance enabled hospitals to organically align with the statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the long run. Ideally, the partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

Furthermore, the Alternative Payment Model for Primary Care (APM) is part of the Department’s efforts to shift from paying for volume to paying for value across the entire delivery system. The APM is designed to support primary care providers through this shift. The Department, in close collaboration with stakeholders, has developed three goals for the APM: provide long-term, sustainable investments into primary care; reward performance and introduce accountability for outcomes and access to care while granting flexibility of choice to providers, and; align with other payment reforms across the delivery system. We believe one of APM’s goals is to align with other payment reforms including the HTP. Further alignment entails the focus on utilizing the Prometheus dashboard tool provided by HCPF to identify key focus areas for lowering potentially avoidable costs (PAC) with the intention to implement an action plan to lower the PAC rate.

**7: Intervention Historical Experience**

**Consider the following:**

* **Does UCHealth or affiliated community partner have experience with intervention and/or core population?**
* **If so, how does the experience support the success of the intervention?**

**Experience**: UCHealth and our affiliated community partner(s) have experience with this intervention due to the same quality measure existing previously under the Hospital Quality Incentive Payment (HQIP) Program. The Hospital Index measure was calculated using Altarum’s PROMETHEUS Analytics tool. PROMETHEUS Analytics is a transparent and proprietary model for bundled payment valuation. PROMETHEUS identified 97 different episodes in calendar year 2018, of which, 24 procedural episodes were used to calculate the index. The episodes were defined and refined by expert clinicians assembled in Clinical Working Groups. A relative factor for each facility reflected the level of PAC dollars that existed in the study period, and this was used as a benchmark.

There were some challenges with accessing this data as the Tableau Reader was not deemed as a safe means of viewing data based upon our IT Department Director. Health Care Policy & Financing (HCPF) visited with the UCHealth HQIP Leads at UCHealth to perform the scavenger hunt required under HQIP as a workaround. On 10/18/2019, HCPF confirmed that Tableau Reader will no longer be needed to access the PROMETHEUS data. Instead, the PROMETHEUS data will be hosted on the Tableau Server owned and operated by CDPHE. Access and access instruction were sent out the following week to the HQIP leads at each facility. Despite the barrier in the beginning, we believe having this experience will support the success of our intervention.

Furthermore, the target population will be established upon review of the PROMETHEUS Analytics data soon. Until this information is known, we are unable to share any experience that may support the success of the intervention at this time.

**8: Existing Intervention Rationale**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

**Not Existing:** This intervention was not already in existence; hence the remaining portion of this question is not applicable. No response is required in section B.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** No

**If yes, identify partner and provide documentation such as letter of partnership, MOU or BAA.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| N/A | N/A | N/A | N/A |

**1**: EHR Enhancement for Summaries of Care

**2**: COE1 - Increase the successful transmission of a summary of care record to a patient’s primary care physician (PCP) or other healthcare professional within one business day of discharge from an inpatient facility to home.

**3: Intervention Description & Rationale**

The intervention selected to address the transition record to PCP within one business day’s quality measure entails increasing the successful transmission of a summary of care record to a patient’s primary care physician (PCP) or other healthcare professional within one business day of discharge from an inpatient facility to home. The intention is to send the discharge summary with the intended audience via Epic and Direct Addresses to different EHRs including the non-UCHealth version of Epic and other EHRs when possible. UCHealth will start this intervention with inpatient and observation patients. In FY 2019 UCHealth saw a total of 136,115 patients inpatient and observation patients. With the opening of Highlands Ranch and Greeley Hospitals we expect to see over 140,000 such patients in CY 2020. UCHealth will then investigate utilizing improved EHR optimization to push TOC/Summary of Care records for outpatient visits and ER visits. UCHealth sees over 500,000 ED patients a year.

UCHealth plans on leveraging the EHR and Direct Addresses to improve the proper routing of care summaries. This will include reducing less reliable summary routes, including but not limited to, the following: paper, fax, email, and burning transition records onto DVD or CD. We will also focus on enhancing our EHR to better route discharge summaries and transitions of care (TOC). Hence, the Epic EHR will be the primary and preferred mode of delivery for the TOC/Summary of care. Given this highly technical effort being established, it is key to capitalize on our technical experts to enhance this process. Education of new workflows will be by Epic support (face-to-face), Epic HIM (help desk phone calls and email), and quality specialists (face-to-face). For PCP’s to receive the appropriate discharge summary information, it must include, but not limited to, the following: patient demographics including insurance, patient history, visit diagnoses, medications/allergies, problems, goals, outstanding labs/tests, notes, plan of treatment, referral information and discharge instructions/summaries.

The Department of Information Technology (IT) will be taking the lead on this electronic intervention to enhance the product and process of sending the summary of care record via Epic. The intended recipients of this document include the patient’s individual PCP or other healthcare providers within one business day after discharge from an inpatient facility during the performance year. The above intervention will be built by a team of Epic analysts and builders. One set of the IT team will be well versed in Epic, one versed in security, one in Health Information Management (HIM) and one in interfacing. A training team may be involved to transfer any additional knowledge that is required to successfully enhance this process. Additional team members include the following: different medical staff officers and coordinators at each UCHealth hospital, a quality lead at each hospital to monitor improvement and Epic support and education to teach users about new workflows that may be designed.

Based upon the Primary Care Provider’s technical ability to receive this transition record, UCHealth will have to tailor how the record is distributed. For instance, PCPs may not be on an EHR or have the ability to set up and interface. While standardizing to EHR transmission to those that can receive summaries of care via an EHR will be the primary goal, UCHealth will continue to work with PCPs that may not have this technology. For example, some offices only have the capability to accept a fax; therefore, UCHealth will transmit this record via fax instead of electronically through Epic. Furthermore, UCHealth may tailor the intervention by patient class as PCPs may want different information on patients depending on the type of encounter the patient had with UCHealth. This will be determined later and after engagement with PCPs for their input. Additionally, IT will evaluate if technology updates will be needed. Epic upgrades are taken on a quarterly schedule and could add additional features. Hence, modifications of the intervention may need to occur in the future due to evolving needs of our staff, community and patients alike.

Current summaries of care are only sent and received correctly approximately 25% of the time using the standard Epic workflow. Epic has several layers of security at the file level (EAF & SER). Many of these records are automated and interfaced. We plan on reviewing this automation with the hypothesis that the automated inputs are incorrect, resulting in EAF & SER records not routing the information to the correct Epic address. While the address is assigned to the correct facility or provider, the end user may not have an active account at the address. Furthermore, faxing, burning disks for patients, and printing paper records are even less reliable and do not allow for auditing to see if transmission of the record even occurred.Hence, UCHealth will review workflows in our EHR (Epic) to better understand how routing of summaries of care are only occurring correctly one in four times. After reviewing the automated workflow, we will work with stakeholders to enhance this automation to make it more accurate and decrease routing errors. UCHealth’s instance of Epic will also allow us to track an improvement of successful transmission of medical records to PCPs and other specialists. Once automation has been enhanced, UCHealth will work with providers to improve non-automated workflows for ensuring summaries are sent correctly at the user level. We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we are highlighting the collaboration among our anticipated community partners via data sharing and analytics and evidence-based care coordination and care transitions.

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. **Intervention selected based on CHNE community needs**
2. **Core population aligned with CHNE**
3. **Intervention to leverage medical/social resources or partners**

The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results were highlighted in order to select an appropriate intervention. Of note, while the community did not specifically address summary of care records as a core problem, they did note many factors that predict readmissions and potentially avoidable costs, which could be reduced by the successful delivery of summary of care records. These factors entail the following: limited access to primary care services, limited availability of long-term care facilities that accept patients with behavioral health conditions, opportunities to improve care coordination for chronic diseases, homelessness and transportation limitations, food insecurity, high-prevalence of opioid and other substance use disorders and lack of Medication Assisted Treatment (MAT) programs. Our interventions will likely aim to address these core needs of the community and the Medicaid population we serve.

Ensuring that patients’ information gets to the PCP so the PCP can be informed for a follow-up visit should reduce cost for both the PCP and for payers, including Colorado Medicaid. First, physicians will be able to be informed about why the patient is coming to see the provider and tailor the visit for efficiency. This may allow providers to see more patients per day. Second, providers will be able to better understand the key evaluation and treatment the hospital staff took during the patient’s stay as well as important follow up issues. This will reduce readmissions and reduce cost on the hospital side and again for payers, including Colorado Medicaid.

These results illuminated the core population to include inpatients and observations patients and primary care providers during the initial phase. During future years of HTP, UCHealth will investigate including ER and HOP (hospital outpatient) populations and specialty medical providers.

**University of Colorado-Anschutz Medical Campus (UCH-AMC)** is a large academic medical center located in the city of Aurora. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For example, of all patients who utilized UCH-AMC, those with Medicaid insurance were nearly 5 times more likely to use the hospital for schizophrenia or psychotic disorder treatment. Furthermore, 9.4% of adults ages 18 years and older in the Denver metro area reported binge drinking in the past 30 days,’ compared to the three hospital service area counties: Adams (17.2%), Arapahoe (17.4%), and Denver (25.6%). Alcohol abuse ranks in the top five reasons for an Emergency Department visit. The most prevalent chronic diseases of Medicaid high utilizers at UCH-AMC were substance use disorders, with alcohol use disorder being the second most common ED diagnosis. Partners shared concerns that alcohol was a significant health challenge for many individuals, including the HTP priority populations. The most common reason for ED use by homeless individuals with Medicaid were alcohol related disorders, followed by suicidal ideation or attempt, and substance disorders. At last, most community partners identified gaps in the current complex care management and care coordination services.

Community partners described how low-income populations in the metro area struggle with food insecurity and its impacts on poor health outcomes. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. There are some community resources and services available to meet patients’ nutritional needs. This may include organizations like Hunger Free Colorado available to enroll patients in SNAP or WIC. Others also referenced home-delivered meals that may be available through non-profit organizations such as Project Angel Heart or meals-on-wheels. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. The overall lack of affordable housing in the metro area, including limited apartment capacity, was identified as especially acute for low-income Medicaid enrollees. Partners see people moving around frequently, which impacts whether and how they access care. This involuntary displacement may also negatively impact behavioral health. Low-income individuals facing chronic and complex health conditions have may fewer resources to devote to other basics like food and housing as they struggle to cover health care costs. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Highlands Ranch Hospital** encompasses the geographical area which includes Douglas County and Jefferson County residents. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For example, both Douglas and Jefferson counties had higher rates of depression (17.7% and 18.8%, respectively), whereas Douglas had lower rates of anxiety (13.6%) and Jefferson had higher rates of anxiety (16.5%) when compared with the state of Colorado. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

A little over half of the respondents indicated that Douglas County did not have adequate transportation options to meet the needs of low-income residents. Similar concerns were cited for individuals who rely on public transportation and the difficulty in getting to care appointments promptly. Several partners talked about limited car ownership among low-income individuals and the challenges that create for mobility. Partners talked about the need to support the Regional Transportation District’s fare reductions for low-income households. Community partners described the Non-Emergency Medical Transportation (NEMT) program with real-life examples. In such cases, the unreliability and limited availability of this service were cited as challenges associated with the receipt of these services. Pilot programs that connect individuals to ride-sharing programs such as Uber or Lyft were mentioned by a few partners as another promising strategy, especially for less-mobile populations. Subsequently, areas of opportunity indicated were 1 in 10 Jefferson County residents were food insecure in 2017. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.Please note, due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

**UCHealth Broomfield Hospital** serves the geographical areas of Jefferson and Broomfield Counties including parts of the Denver Metro area. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For example, of the total patients who utilized UCHealth Broomfield Hospital, those with Medicaid insurance were 3.4 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that had commercial insurance. Medicaid patients were 10.3 times more likely to use the hospital for suicidal ideation or attempt, when compared to patients with commercial insurance. Of all Medicaid ED high utilizers, 16% had one or more mental health disorders, a percentage had alcohol use disorder, and 5.1% had opioid use disorder. Most partners shared that behavioral health services are limited – although one partner shared that even when service capacity is increased, it is quickly filled, suggesting there may never be enough services to meet demand. The behavioral health workforce gaps were generally identified as licensed clinical social workers, psychiatrists, and nurses to staff residential or treatment programs.

The ability to connect these social and medical services and data across different organizations to avoid duplication and provide seamless care to patients is an identified gap highlighted in the CHNE. While they may not have all the needed paperwork to complete applications for programs like SNAP or WIC, meeting someone face-to-face to discuss a program, get accurate contact information, and initiate a process was identified as a critical step in connecting people with services. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Longs Peak Hospital** encompasses the geographical area which includes Boulder and Weld counties. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. In total, 41.4% and 37.2% of all its hospital users resided in Weld County and Boulder County, respectively. Of patients who utilized UCHealth Longs Peak Hospital, those with Medicaid insurance were 2.5 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. One percent of all encounters for UCHealth Longs Peak Hospital users were for suicide ideation or attempt. Four percent of individuals with one more mental health disorders used UCHealth Longs Peak Hospital for suicide ideation or attempt. Of all patients who utilized UCHealth Longs Peak Hospital, a similar number of Medicaid and commercially insured patients used the hospital because they felt suicidal or committed a suicidal attempt. Of all patients who presented to the emergency department with a suicide attempt, 12 (6%) had to be admitted to the hospital to receive medical care to treat the effects of an overdose. Among all Medicaid ED high utilizers, 24.4% had one or more mental health disorders, 8.9% had alcohol use disorder, and 3.1% had opioid use disorder. There is a surplus of mental health providers in Boulder County, but a shortage in Weld County. However, it is unclear how many Boulder County behavioral health providers accept new patients with Medicaid.

Residents and community organizations of Weld and Boulder counties noted that transportation is a challenge for Medicaid enrollees. Both counties are spread out with health centers and the hospital being centrally located. Public transportation from more remote locations to and from health centers is scarce. Transportation is a primary barrier in accessing health and social resources in Boulder and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. Lack of timely Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. Access to healthy, nutritious food was identified as a need among individuals experiencing homelessness as well. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Memorial Hospital** users reside in El Paso County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care access. For example, there is a shortage of primary care providers in El Paso County. For every primary care provider, there are 1,650 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. Furthermore, El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively). The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000). El Paso County has higher rates of alcohol-impaired driving deaths (42%) compared to 34% in the state of Colorado. However, excessive drinking rates (18%) are lower to those in the state of Colorado (21%). Almost 80% of all high health care utilizers also had chronic mental health or substance use disorder. Of all the patients who utilized UCHealth Memorial Hospital, those with Medicaid insurance were 8.3 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, those with Medicaid insurance were 3.5 times more likely to use the hospital for suicidal ideation or attempt.

The community faces challenges due to geographic sprawl such as limited transportation options and employment opportunities. Affordable housing and lack of population density to support businesses and public services are community needs identified by the local public health agency. Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., housing).

In our interviews with home health agency partners, many mentioned home health agencies being unable to get orders signed by the Medicaid member’s primary care provider. This leads to one post-hospital visit by the home health agency, but no future visits can be made until orders are signed. This is often the reason for return visits and re-admissions in this patient population. The home health agencies were unaware that the RAE could provide care coordination and facilitate primary care providers to home health agency communications. Colorado Springs has a program called Community Assistance, Referral and Education Services (CARES) that target high utilizers of the 911 call system. The program identifies high utilizers and provides them with chronic disease management education, low acuity medical response, proper medical facility navigation and follow up with hospital and emergency department discharge plans. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Pikes Peak Regional Hospital** is a critical access hospital located in Teller County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care access. Teller County residents with a mental health diagnosis contributed to 9.1% of all inpatient and ED visits. This rate was slightly higher for Medicaid Teller residents (10.3%) who utilized a UCHealth hospital. Teller County has one of the highest prescription opioid-related ED visit rates (18.1 and 96.0 per 100,000 residents), prescription opioid-related hospitalizations (24.9-59.7 per 100,000 residents), and opioid-related deaths (9.0-13.5 per 100,000) in the state of Colorado. Teller County has higher rates of depression (21.2%) and anxiety (21.6%) when compared with the state of Colorado (18.4%). There is a shortage of mental health providers in Teller County. There are no local inpatient psychiatric hospitals or detoxification units. Medicaid members with an acute exacerbation of their mental illness who require an inpatient psychiatric stay are evaluated by the local emergency services company in collaboration with the hospital via a paramedicine program. Medicaid members with a desire for recovery and seeking detox services must travel to Colorado Springs for care. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Grandview Hospital** encompasses the geographic area of El Paso county. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care access. In El Paso county, the top two leading causes of death are suicide and accidents among residents between the ages of 1 and 44 years. Almost 80% of all high utilizers also had chronic mental health or substance use disorder. El Paso County has higher rates of depression (19.6%) and anxiety (19.3%) when compared with the state of Colorado (18.4% and 16.4% respectively). The age-adjusted death rate due to suicide is 22.8 per 100,000 residents in El Paso County, which is significantly higher than the suicide rate in all of Colorado (20.2 per 100,0000). Of suicides in El Paso County, 74% percent were gun deaths. Of all patients who utilized UCHealth Grandview Hospital, those with Medicaid insurance were 4.7 times more likely to use the hospital for schizophrenia and psychotic disorder treatment, when compared to patients that have commercial insurance. In total, 0.9% of all encounters for individuals with one or more mental health disorders were for suicide ideation or attempt. Of patients who utilized UCHealth Grandview Hospital, those with Medicaid insurance were 2.2 times more likely to utilize the hospital for suicidal ideation or attempt when compared to patients with commercial insurance. There is a shortage of mental health providers in El Paso County. For every mental health provider in El Paso County, there are 340 residents when compared to the state of Colorado where for every mental health provider there are 300 residents. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Yampa Valley Medical Center** is a rural hospital located in Routt County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. For instance, alcohol-related disorders were identified as the top substance use disorder in our hospital service area, accounting for 55% of all visits for those who have one or more substance use disorder co-morbidity. Alcohol abuse and dependence diagnostic code was the leading cause of hospital admissions for several Medicaid members with chronic conditions. In evaluating Yampa Valley Medical Center’s electronic health record data, Medicaid individuals with a mental health disorder utilized the hospital most commonly for alcohol-related disorders, mood disorders, and anxiety disorders. The alcohol related disorders were the primary reason for hospital admission for Medicaid members with mental health disorders. Mood disorders were the primary reason for Medicaid members with mental health disorders utilizing the ED. Medicaid members who used Yampa Valley Medical Center had one or more mental health disorders and accounted for 179 visits over a period of six months. Routt County has lower rates of depression (12.8%) and anxiety (1.9%) when compared with the state of Colorado (18.4% and 16.4% respectively). In assessing the UCHealth electronic health record, we found that approximately 8.6% of all Yampa Valley Medical Center Medicaid covered visits were for individuals with one or more substance use disorders. Alcohol related disorders are the 4th and 8th leading cause of emergency department utilization for those with Medicaid insurance and all payers. Several community stakeholders mentioned there is poor access to limited mental health and substance use disorder services for those who live in Routt County. There are currently no detoxification centers available for Routt County residents with Medicaid insurance. Furthermore, Northwest Colorado Health provides home health services to all Routt County residents. In conversations with members of Northwest Colorado Health, 30-day hospital re-admission rates for Medicaid members receiving home health services are high. Reasons for these high re-admission rates included complex patient population and high social needs.

Approximately, 18% of all 2019 CHNE respondents mentioned having lack of access to housing. Transportation is a major barrier, both for inter-facility transportation, as well as for Routt County residents to get to and from appointments. Gaps in primary care access are related to transportation and distance from the Medicaid enrollee's home and the PCMH. Furthermore, food insecurity came up in several conversations with community organizations. We identified community organizations that provide food delivery or food pantry services to Routt County residents. Many of those organizations are supported via donations and grants. We were unable to identify a meals-on-wheels program. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Medical Center of the Rockies** encompasses the geographical area which includes Weld and Larimer Counties. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, homelessness and transportation limitations, and limitations of primary care providers. Weld County has a shortage of primary care providers. For every primary care provider, there are 2,030 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. There is a high number of homeless individuals in Larimer and Weld County, yet homeless services are lacking. Also, Larimer County and Weld County have high rates of residents with mental health and substance use disorders. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Medical Center of the Rockies, those with Medicaid insurance were 2.6 times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. In addition, this population is 1.2 times more likely to use the hospital for suicidal ideation or attempt. Nearly 12 percent of all patients using UCHealth Medical Center of the Rockies hospital had one or more mental health diagnoses. The top reasons for hospital visits for high utilizers were substance-related disorders and abdominal pain. According to the UCHealth Medical Center of the Rockies, mental health and substance use disorder services are the top required specialties in Larimer County. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Poudre Valley Hospital** is a community hospital that serves Larimer County and Weld County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. Larimer and Weld county have high rates of residents with mental health and substance use disorders. Plans are underway to develop a comprehensive behavioral health facility that will include a variety of services and different levels of care, including residential substance use treatment and programming, which is currently unavailable in Larimer County. The most common chronic diseases identified in the high utilizer population is severe substance use disorder, specifically alcohol use disorders, and severe persistent mental illness. Of all patients who utilized UCHealth Poudre Valley Hospital, those with Medicaid insurance were two times more likely to use the hospital for schizophrenia and psychotic disorder treatment when compared to patients that have commercial insurance. The top diagnosis associated with hospital use by Medicaid high utilizers at UCHealth Poudre Valley Hospital was alcohol-related disorders. There is a shortage of mental health providers in Larimer and Weld County. For every mental health provider in Larimer County, there are 320 residents, and in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents. Community organizations stressed the need for mental health and substance use disorder services.

Evidence shows that decreasing over-utilization by high utilizers is a multi-faceted approach which includes addressing social determinants of health (i.e., food insecurity, transportation). Transportation is the main barrier to accessing health and social resources in Larimer and Weld counties. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.

**UCHealth Greeley Hospital** encompasses the geographical area which includes Weld County. These results illuminated the core population to include Medicaid patients with underlying chronic illness, behavioral health conditions, substance use disorders, and homelessness and transportation limitations. Weld County has a shortage of primary care providers. For every primary care provider, there were 2,030 residents. Most primary care attribution comes from Weld County, where 15 of the 33 primary care practices see Medicaid members. Furthermore, Weld County has high rates of residents with mental health and substance use disorders. The top patient avoidable care episodes of care were for substance use disorders. Psychiatry services utilize telehealth for inpatient psychiatric consultations. For every mental health provider in in Weld County, there are 430 residents when compared to the state of Colorado where there are 300 residents.

Weld County residents articulated that the four most common themes when asked what ways will enable a healthier place to live, work, and play and the social need was indicated as the following: Transportation (329 responses; 25.3%). Transportation is the main barrier to accessing health and social resources in Weld County. While non-emergency transportation is a covered Medicaid benefit, patients must schedule transport ahead of time. This means that Medicaid patients who need urgent appointments and face transportation challenges cannot make it to their appointment. This may lead Medicaid members to utilize the emergency department. Many mentioned needs related to addressing social determinants of health including, transportation, food insecurity, and DME access were items that care coordinators could support patients when making appointments with specialty providers. Addressing these psychosocial and access needs will be paramount to reducing readmissions in this cohort.Please note, due to the hospital not being open during our CHNE assessment, our target population definition is limited to county specific data.

3.Our preliminary resources to be leveraged encompass both medical and social resources to address the local community needs. UCHealth will first leverage its IT resources to improve the way it sends summaries of care. This will include both modifying the EHR to better capture data elements that peer reviewed literature suggest will reduce complications and readmissions post-discharge and ensuring that summaries of care go to the correct provider. As UCHealth sees over 3 million outpatients annually, we will first work with our own, employed primary care providers and specialists to ensure that processes are sound before working with external agencies and providers. This prototype approach will be our first small step in the well-developed and utilized PDSA (Plan, Do, Study, Act) cycle. We will spread to external agencies after testing provides the anticipated results.

**5: Evidence Base intervention: Select One**

1. **Randomized Control Trial (RCT) level evidence**
2. **Best practice supported by less than RCT evidence**
3. **Emerging practice**
4. **No evidence**

**Randomized Control Trial (RCT) level evidence** (See AJAC article for statistical study pages 2 and 3)

The evidence base intervention selected entails increasing the successful transmission of a summary of care record to a patient’s primary care physician (PCP) or other healthcare professional within one business day of discharge from an inpatient facility to home (see question 3 for more details). Research suggests that many health care systems and patients rely on primary care doctors to take the lead in coordinating our target population’s patient care between primary care and hospital settings. However, the shortage of information provided, the lack of direct handoffs between professionals, and the involvement of multiple individuals can make it difficult for primary care doctors to fulfill this role. Those who use an electronic health record system are more likely to receive patient information, although the routine transfer of patient information is not necessarily common. The adoption of electronic tools will be critical to improving safety in many ways among our target population. While most of our providers utilize an electronic health record, there are several that remain on paper records. eHealth can help structure communication between professionals in a way that reduces errors and improves coordination (2). While the cited article utilized email to transfer information, this was due to the lack of interoperability back in 2011 to 2014. Now, EHRs have the ability to work together. This will lead to the reduction of unnecessary consultations and hospitalizations and improve access to knowledge about health conditions and their management for both professionals and patients (1). Hence, the cited evidence base supports the use of the intervention among the target population. However, to achieve their full potential, electronic tools need to be integrated with other parts of service delivery and adapted to the local context. Consequently, we believe the quality measure to be addressed by this intervention is largely due to investing in the enhancement of Epic’s capability to disseminate the summary of care record to a patient’s PCP or other healthcare professional electronically within one business day of discharge. The use of Epic’s interoperability across organizations so that information can be transferred between points of care without having to rely solely upon oral communication between health care providers is critical.

To view more information regarding this intervention, please see the links referenced below:

1. WHO TOC Article: <https://apps.who.int/iris/bitstream/handle/10665/252272/9789241511599-eng.pdf;jsessionid=EB98D1EA39BB4C6D5CAC222F8302D918?sequence=1>
2. AJAC Article: <https://www.ajmc.com/journals/ajac/2017/2017-vol5-n4/emailbased-care-transitions-to-improve-patient-outcomes-and-provider-work-experience-in-a-safetynet-health-system>

**6: Intersection with Statewide Initiatives**

* Yes
* **If yes, select from list:**
  + [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
  + [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
  + [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
  + [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
  + [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
  + [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
  + Rx Tool
  + [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
  + [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
  + [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
  + [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
  + Crisis Intervention
  + [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
  + Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Affordability Road Map
* IT Road Map
* Accountable Care Collaborative (ACC) Phase II

Health Care Policy & Finance enabled hospitals to organically align with the aforementioned statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the long run without compromising quality healthcare. Ideally, that partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

Additionally, there are 16 initiatives recommended in the IT Roadmap and they provide guidance for Coloradan’s health IT efforts in the future. When implemented, the results of the initiatives will provide an expanded, more robust foundation supporting Colorado achieving its health reform goals. There are six domains in which these initiatives fall under and encompass the following: stakeholder engagement, governance, resources/financial, privacy and security, innovation, and technology. The initiative that resonates most with this quality measure falls under the governance domain and entails the ability to harmonize and advance data sharing and health information exchange capabilities across Colorado. As a part of the quality measure description, UCHealth intends on sharing data by notifying the RAE of the activity.

**7: Intervention Historical Experience**

**Consider the following:**

* **Does UCHealth or affiliated community partner have experience with intervention and/or core population?**
* **If so, how does the experience support the success of the intervention?**

**Experience**: UCHealth and our affiliated community partner(s) have experience with this particular intervention with the CMS Meaningful Use and Promoting Interoperability programs now has the EHR Incentive Programs. CMS has been pushing for interoperability between EHRs by transmitting summaries for care for the last few years. Providers are becoming accustomed to going to the EHR for the summary of care and UCHealth believes that we should leverage this shift. Hence, based upon this intervention’s historical experience, it will support the success of our future initiative. Furthermore, the target population had been a prioritized among UCHealth and its affiliated partners and our experience with this priority population will support the success of the intervention by allowing providers and patients to view the same information about the patient’s acute care visit. UCHealth is a leader in Colorado for patient portals that allow access to Epic data including the summary of care for their inpatient visit.

**8: Existing Intervention Rationale**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

**Existing:** UCHealth selected an existing intervention because it is the best approach for meeting the community needs identified in the Community Health Neighborhood Engagement process. This approach is ideal due to that fact we can leverage the work the EHR Incentive Program has achieved in the last few years. Providers are becoming more comfortable with the EHR being the main driver of health information and health information exchange between providers. UCHealth has utilized extensive resources to push summaries of care using Epic. However, the process still needs optimization. Making Summaries of Care and Transitions of Care an HTP priority will allow us to marshal more resources to refine and improve the process. This existing intervention will be enhanced to meet the HTP goals by improving the way records are transmitted so they reach the recipient at a more reliable rate. UCHealth will also look to improve content to ensure the summaries meet the needs of the providers.

**9: Partnership & Documentation**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** No

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| N/A | N/A | N/A | N/A |

**SW-PH1: Severity Adjusted Length of Stay**

**1: Name of Intervention:** Utilization Management Committee

**2: Measure Selection:** SW-PH1: Severity Adjusted Length of Stay

**3: Intervention Description & Rationale**

Intervention Description: The intervention selected to address the Length of stay (LOS) measure consists of focusing on the Medicaid patients in our Utilization Management Committees (UMC) as well as the creation and analysis of a Medicaid dashboard within our multidisciplinary utilization management committee discussions.

The organizational objectives to be impacted under the HTP framework includes capturing performance via improving HTP quality measures. The brief name of our intervention is the Utilization Management Committee (UMC). Utilization review is a component of quality assurance to determine the medical necessity of the medical care provided to a hospitalized patient. The UMC is a hospital committee that is mandated by the Centers for Medicare & Medicaid Services “Conditions of Participation.” However, we propose that if it is structured carefully, the UMC can analyze risk-adjusted data from a newly created Medicaid dashboard, coordinate care among different departments including physician advisors, quality, care management, clinical documentation, coding and hospital administration. As a result, it has the potential to be a powerful vehicle for driving improvement and change.

The UMC will meet quarterly at each of the hospital regions for UCHealth. Medicaid dashboards will be developed by our data analysts and placed into power BI analyzing average and geometric length of stay with outliers. During the UMC, analysis of the dashboard will occur with multidisciplinary discussion from physician advisors care management, clinical documentation and quality. Furthermore, additional metrics include associated DRGs, patient demographics and service lines. The data will be discussed quarterly. As this is a fluid data collection, additional expansion of the dashboard is possible in the future. Depending on the outcomes of the data analysis, we may need to establish subcommittees to review and act on the findings.

**Memorial/PPRH/LPH/BFH (not GVH):** Furthermore, Colorado Community Health Alliance collaborates with UCHealth to provide transitions of care services for our complex patients by attending UCHealth’s Complex Care Transitions Committee a minimum of 1x per month, with the option of weekly reviews for higher volume hospitals. Colorado Community Health Alliance is a Regional Accountable Entity, serving Medicaid members in Regions 6 and 7. We believe this subsequent effort will complement the establishment of the UMC.

**UCH-AMC (not HRH)**: Furthermore, Colorado Access collaborates with UCHealth to provide transitions of care services for our complex patients by attending UCHealth’s Complex Care Transitions meeting a minimum of 1x per month, with the option of more frequent reviews for higher volume hospitals. Colorado Access is a Regional Accountable Entity, serving Medicaid members in Regions 3 and 5. We believe this subsequent effort will complement the establishment of the UMC.

**PVH/MCR (Not Greeley/YVMC)**: Furthermore, Rocky Mountain Health Partners collaborates with UCHealth to provide transitions of care services for our complex patients by attending UCHealth’s Complex Care Transitions meeting a minimum of 1x per month, with the option of more frequent reviews for higher volume hospitals. As you are aware, Rocky Mountain Health Partners is a Regional Accountable Entity, serving Medicaid members in Region 1. We believe this subsequent effort will complement the establishment of the UMC.

Intervention Rationale: We believe this intervention will advance the goals of the Hospital Transformation Program by improving both patient outcomes and experience by ensuring integration of care is occurring across the appropriate settings. Utilization review programs are designed to provide incentives in a variety of forms that encourage the use of hospital services that are necessary and appropriate. By indulging in the HTP framework, we are organically accelerating UCHealth’s readiness for value-based payments with the intention to reduce costs. Furthermore, we are highlighting the collaboration among our own institutions as well as anticipated community partners via data sharing and analytics.

**4**: **Describe how intervention/local quality measures addressed by intervention align with CHNE’s community needs:**

1. Intervention selected based on CHNE community needs
2. Core population aligned with CHNE
3. Intervention to leverage medical/social resources or partners.

1.&2. All: The CHNE process enabled UCHealth to grasp a better understanding of the community needs and perceived gaps at the local level. This process was invaluable and allowed us to make an informed decision on our measure and intervention selection. Based upon our CHNE process, the following results speak to a relative lack of access to integrated care across the hospital and ambulatory spectrum which may contribute to prolonged length of stay. These results illuminated the core population of CHNE as well.

**University of Colorado-Anschutz Medical Campus (AMC)** is a large academic medical center located in the city of Aurora. Partners talked about a need for services that can accommodate more complex individuals, including acute care needs. The availability of long-term care services, especially home health, was characterized by some partners as limited (i.e., no-to-low reimbursement for skilled services). Also, home health agencies mentioned that several Medicaid members do not engage with a primary care provider, which limits the ability for the agency to provide care to patients, given they must have the PCP’s signature on orders. There is relative lack of care coordination between complex Medicaid members receiving Health and Community Based Services (HCBS) and primary care, hospital and post-acute care networks. Most long-term care facilities do not accept Medicaid patients with behavioral health conditions or aggressive behavior. These patients find themselves staying in the hospital for weeks to months before finding long term placement. Most community partners identified gaps in the current complex care management and care coordination services.

**UCHealth Yampa Valley Medical Center** is a rural hospital located in Routt County. During the fiscal year of 2018, 34 Medicaid members who utilized Yampa Valley Medical Center were discharged to a nursing home facility. Casey’s Pond is the only nursing home facility in Routt County. In conversations with Casey’s Pond staff, they expressed challenges related to caring for residents with behavioral health needs, which often co-exists with a dementia diagnosis. The team at Casey’s Pond noted that they have a challenging time with employment given high turnover and lack of people available to work in nearby areas. Due to the high cost of living, most employees live in surrounding towns, such as Hayden or Craig. Since hiring a dedicated hospital care coordinator, they report improvements in transitions of care. The care coordinator visits patients admitted to the hospital, before discharge, to be sure they are a good fit for Casey’s Pond. Northwest Colorado Health provides home health services to all Routt County residents. In conversations with members of Northwest Colorado Health, 30-day hospital re-admission rates for Medicaid members receiving home health services are high. Reasons for these high re-admission rates included complex patient population and high social needs.

**UCHealth Poudre Valley Hospital** is a community hospital that serves Larimer County and Weld County. Only, one-fourth of elderly residents in Larimer County rated the availability of long-term care and daytime care options favorably. 1,219 Medicaid clients received long term care services and utilized UCHealth Poudre Valley Hospital. In total, 337 Medicaid UCHealth Poudre Valley Hospital users currently live in a nursing home. The following are the three home health agencies that most commonly accept Medicaid patients from UCHealth Poudre Valley Hospital: Banner Home Care Colorado, Spring Creek Health Care Center, and Columbine Poudre Home Health Care. The Medicaid Accountable Care Collaborative (MACC) team generally uses the definition of four or more ED visits per year as a high utilizer. The goal of the MACC team who is subcontracted by the RAE (I.e. Rocky Mountain Health Plan) is to gather the primary care and hospital stakeholders to address the needs of the high utilizers to reduce the number of overall hospital visits. Rocky Mountain Health Plans is actively looking at developing a new tool that provides the clinic and the MACC team with claims-based data on high utilization, associated diagnosis, and point of care information. Furthermore, the MACC team provides wrap-around community-based care management services and often works in collaboration with agencies and community partners (i.e., Murphy Center) to address this population’s complex needs. The three clinics mentioned above also provide primary care, behavioral health integrated care and transitions of care with follow up.

**UCHealth Pikes Peak Regional Hospital** is a critical access hospital located in Teller County. There is a gap of services provided in the Teller County community for Medicaid clients. For example, Cripple Creek Care Center is the only nursing home that accepts Medicaid residents. If a patient comes through the hospital and requires Long Term Support Services (LTSS), they must be placed in a facility in El Paso County. Also, in Teller County, there is no Program of All-Inclusive Care for the Elderly (PACE).

**UCHealth Memorial Hospital** users typically reside in El Paso County. There is a shortage of primary care providers in El Paso County. For every primary care provider, there are 1,650 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. In our interviews with home health agency partners, many mentioned home health agencies being unable to get orders signed by the Medicaid member’s primary care provider. This leads to one post-hospital visit by the home health agency, but no future visits can be made until orders are signed. This is often the reason for return visits and re-admissions in this patient population. The home health agencies were unaware that the RAE could provide care coordination and facilitate primary care provider to home health agency communications. There are only a few home health agencies and nursing homes that accept Medicaid. Many of the agencies mentioned low reimbursements as the main reason to not accept Medicaid members. UCHealth Memorial Hospital has a team that meets weekly to review complex cases that may lead to long lengths of stay and have high social needs. Colorado Springs has a program called Community Assistance, Referral and Education Services (CARES) that target high utilizers of the 911 call system. The program identifies high utilizers and provides them with chronic disease management education, low acuity medical response, proper medical facility navigation and follow up with hospital and emergency department discharge plans.

**UCHealth Medical Center of the Rockies** encompasses the geographical area which includes Weld and Larimer Counties. Weld County has a shortage of primary care providers. For every primary care provider, there are 2,030 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. Only one-fourth of elderly residents in Larimer County rated the availability of long-term care and daytime care options favorably. The following are the three home health agencies that most commonly accept Medicaid patients from UCHealth Medical Center of the Rockies: Banner Home Care Colorado, Caring Hearts Home Health, and Columbine Poudre Home Health Care. Nursing homes and housing for aging populations was brought up as a perceived gap in the community. There is a high number of homeless individuals in Larimer and Weld County, yet homeless services are lacking.

**UCHealth Longs Peak Hospital** encompasses the geographical area which includes Boulder and Weld counties. There were 12.7% Medicaid enrollees discharged from UCHealth Longs Peak Hospital to a post-acute care setting for a period of six months in 2018. The following are the three home health agencies that most commonly accept Medicaid patients from UCHealth Longs Peak Hospital: Professional Home Health Care, Accent Care Home Health, and At Home Healthcare. The following are the three nursing homes that most commonly accept Medicaid patients from UCHealth Longs Peak Hospital: Life Care Center of Longmont, The Peaks Care Center, and Applewood Living Center.

**UCHealth Highlands Ranch Hospital** encompasses the geographical area which includes Douglas County and Jefferson County residents. Assisted living was characterized as “available” for Medicaid enrollees, although partners did talk about the challenges in timing for getting patients approved for long term care through Medicaid (three-five day minimum). Also, not all dual eligible Medicare-Medicaid enrollees are screened for or referred to the long-term services and supports (including PACE) for which they may be eligible. The availability of long-term care services, especially home health, was characterized by some partners as limited (i.e., skilled care) and with few patient choices.

**UCHealth Greeley Hospital** encompasses the geographical area which includes Weld County. Weld County has a shortage of primary care providers. For every primary care provider, there were 2,030 residents. Most primary care attribution comes from Weld County, where 15 of the 33 primary care practices see Medicaid members. Assisted living was characterized as “available” for Medicaid enrollees, although partners did talk about the challenges in the timing for getting patients approved for long-term care through Medicaid (three to a five-day minimum). Some partners characterized the availability of long-term care services, especially home health as limited and poor. The low wages paid to home health staff – and the impact this has on turnover and employee engagement – was cited as one reason the access and quality of care might be low. Also, home health agencies mentioned that several Medicaid members were not engaged with a primary care provider, which limits the ability for the agency to provide care to patients, given they must have the PCP’s signature on orders. Most long-term care facilities do not accept Medicaid patients with behavioral health conditions or aggressive behavior. These patients find themselves staying in the hospital for weeks to months before finding long-term placement. Furthermore, patients who receive Long Term Support Services may lose their benefits once hospitalized, or if not, they tend to not fill out the needed renewal paperwork.

**UCHealth Grandview Hospital** serves the geographical area of El Paso county, and most of its hospital users resided in El Paso County. There is a shortage of primary care providers in El Paso County. For every primary care provider, there are 1,650 residents when compared to the state of Colorado where for every primary care provider there are 1,230 residents. In our interviews with home health agency partners, many mentioned home health agencies being unable to get orders signed by the Medicaid member’s primary care provider. This leads to one post-hospital visit by the home health agency, but no future visits can be made until orders are signed. This is often the reason for return visits and re-admissions in this patient population. The home health agencies were unaware that the RAE could provide care coordination and facilitate primary care provider to home health agency communications. There are only a few home health agencies and nursing homes that accept Medicaid. Many of the agencies mentioned low reimbursements as the main reason to not accepting Medicaid members. Colorado Springs has a program called Community Assistance, Referral and Education Services (CARES) that target high utilizers of the 911 call system. The program identifies high utilizers and provides them with chronic disease management education, low acuity medical response, proper medical facility navigation and follow up with hospital and emergency department discharge plans.

**UCHealth Broomfield Hospital** serves the geographical areas of Jefferson and Broomfield Counties including parts of the Denver Metro area. The resident to primary care ratio is highest in Denver County (2,340:1) and lowest in Broomfield County (980:1). The resident to primary care provider ratio in Colorado is one primary care provider for every 1,230 residents. It is unclear what access for Medicaid members is given that not all practices accept Medicaid members. Assisted living was characterized as “available” for Medicaid enrollees, although partners did talk about the challenges in timing for getting patients approved for long term care through Medicaid (three-five day minimum). Also, not all dual eligible Medicare-Medicaid enrollees are screened for or referred to the long-term services and supports (including PACE) for which they may be eligible. There is a perception of limited home health care and nursing home options for Medicaid clients. Also, there is lack of Medicaid care coordination services available to the post-acute care network.

3.All: Our preliminary resources to be leveraged to establish the governance, structural and process for care management participation in the UMC will draw from our current leadership and governance models, our experience creating and executing committees and our internal data and process improvement resources. Once we engage in the process improvement phase, we are likely to utilize both medical and social resources to address the local community needs. Namely, chronic disease management, behavioral health conditions, substance use disorders, and homelessness. The availability of community resources such as home health care and therapy, acute rehabilitation, subacute rehabilitation and nursing home placement assist in decreasing the hospital length of day.

**5. Evidence based intervention:**

**Evidence Base intervention: Select One**

**1. Randomized Control Trial (RCT) level evidence**

**2. Best practice supported by less than RCT evidence**

**3. Emerging practice**

**4. No evidence**

3. Emerging practice.

The evidence base has been identified as an emerging practice for the intervention’s use among the target population. The intervention selected entails the utilization management review committee and the cited evidence base supports the use of the intervention among the target population. Medicaid insurance has been associated with prolonged hospitalizations and a higher in hospital mortality when compared to commercial insurance (1). This outcome disparity persists even after adjustment for disease severity and comorbidities. Hence, the utilization review is a component of quality assurance to determine the medical necessity of the care provided to a hospitalized patient. Data suggest that hospital utilization review programs can reduce utilization and expenditures and generate cost savings, thereby helping to improve the efficiency of medical care and resource consumption (2). The utilization management committee is a hospital committee that is mandated by the Centers for Medicare & Medicaid Services “Conditions of Participation” (2). We believe this intervention will address the quality measure by analyzing risk-adjusted data, and coordinating care among different departments including physician advisors, quality, care management, clinical documentation, coding and hospital administration. As a result, the intervention has the potential to be a powerful vehicle for driving improvement and change in order to impact the selected quality measure.

To view more information regarding this intervention, please see links referenced as follows:

1. Anderson, et al. Impact of state Medicaid expansion Status on Length of stay and in hospital mortality for general medicine patients at US academic Medical Centers. J Hosp Med. 11(12). 2016. 847-58. <https://www.ncbi.nlm.nih.gov/pubmed/27535323>
2. Orland, Richard. Hospital Case Management and the Utilization Review Committee. Prof Case Management. 2011. 16(3)139-144. <https://www.jstor.org/stable/3765229>

**6: Intersection with Statewide Initiatives:**

* Yes
* **If yes, select from list:**
* [Behavioral Health Task Force](https://www.colorado.gov/pacific/cdhs/colorado-behavioral-health-task-force)
* [Affordability Road Map](https://www.colorado.gov/governor/sites/default/files/inline-files/RoadMapDoc-3.pdf)
* [IT Road Map](https://www.colorado.gov/pacific/oehi/colorado-health-it-roadmap-0)
* [HQIP](https://www.colorado.gov/pacific/hcpf/hospital-quality-incentive-payment-program-subcommittee)
* [ACC](https://www.colorado.gov/pacific/hcpf/accphase2)
* [SIM Continuation](https://www.colorado.gov/healthinnovation/resources-supporting-integrated-care)
* Rx Tool
* [Rural Support Fund](https://www.colorado.gov/pacific/hcpf/htp-rural-support-fund)
* [SUD Waiver](https://www.colorado.gov/pacific/hcpf/ensuring-full-continuum-sud-benefits)
* [Health Care Workforce](https://cha.com/colorado-hospitals/workforce/)
* [Jail Diversion](https://www.courts.state.co.us/Administration/Unit.cfm?Unit=mhdiver)
* Crisis Intervention
* [Primary Care Payment Reform](https://www.colorado.gov/pacific/hcpf/primary-care-payment-reform-3)
* Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please identify)

The intervention selected aligns with the ongoing statewide initiatives that include, but not limited to, the following:

* Affordability Road Map
* Accountable Care Collaborative (ACC) Phase II

Health Care Policy & Finance enabled hospitals to organically align with the aforementioned statewide initiatives due to the Hospital Transformation Program’s overall concept and framework. The predominant source of alignment falls to the Accountable Care Collaborative (ACC) Phase II. Specifically, under the CHNE requirements, the ACC’s Program Improvement Advisory Committee (PIAC) is referenced as an opportunity to leverage this platform to discuss the Hospital Transformation Program and we believe this initiative aligns with the PIAC’s intentions.

The Affordability Roadmap’s vision is to take significant steps to increase access to health care and insurance coverage while offering these services at a lower cost. We believe the general HTP framework embodies an organic shift from "fee-for-service" model to value-based care with the intent to lower hospital prices in the future without sacrificing high quality healthcare. Ideally, the partnership between UCHealth and Health Care Policy & Financing under the Hospital Transformation Program promotes the hospital’s ability to improve patient experience and outcomes while lowering costs as a part of the goals of this program. Thus, enabling this initiative to align with the ongoing statewide initiatives.

**7: Intervention/Target Population Historical Experience:**

**Consider the following:**

**Does UCHealth or affiliated community partner have experience with intervention and/or core population?**

**If so, how does the experience support the success of the intervention?**

**Experience**: UCHealth and our affiliated community partner(s) have experience with this intervention because of efforts made with Utilization Management. Our efforts will include using a multi-disciplinary and high-level leadership team in the form of a Utilization Management Committee. Although we currently have a Utilization Management Committee, it has not historically focused on the needs of the Colorado Medicaid population. It has focused on the Medicare population evaluating performance, length of stay, cost, common DRGs and identifying opportunities for improvement. Because this committee consists of high-level leadership, quality leadership, and administrative leadership, we believe that it will be a near ideal forum to address and prioritize length of stay issues with the Medicaid population. We will develop reporting specific to this population to help identify opportunities for improvement and intervention.

Furthermore, the target population had been prioritized among UCHealth and its affiliated partners and our experience with this priority population will support the success of the intervention by deployment of needed resources to address length of stay for this population. For instance, the Regional Accountable Entities have collaborated with UCHealth to provide transitions of care services for our complex patients by attending UCHealth’s Complex Care Transitions meeting a minimum of 1x per month, with the option of more frequent reviews for higher volume hospitals.

**8: Existing Intervention Rationale:**

**Existing interventions are those the hospital had implemented or was implementing on the day it submitted the Hospital Application.**

**Criteria for Leveraging Existing Intervention:**

* **Best approach for meeting community needs**
* **Project enhanced to meet HTP goals**

**Not Existing:** This intervention was not already in existence; hence the remaining portion of this question is not applicable. No response is required in section B.

**9: Partnership & Documentation:**

**Partner Definition: A partner is defined as one of the following organization types who is actively participating in the intervention. Hence, this partner must be a part of the product (intervention deployed) despite building a process (how intervention is deployed).**

**Organization Types:**

1. **Community organization addressing Social Determinants of Health (SDOH)**
2. **Primary Care Medical Provider (PCMP)**
3. **Mental Health Center**
4. **Consumer Advocates/Advocacy Organizations**
5. **Federally Qualified Health Center (FQHC)**
6. **Health Alliance**
7. **Local Public Health Agency (LPHA)**
8. **Long Term Support Services (LTSS)**
9. **Regional Accountable Entity (RAE)**
10. **Regional EMS/Trauma Advisory Council (RETACs)**

**Partnership identified?** Yes

**If yes, identify partner and provide documentation such as letter of partnership, MOU or BAA.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Partner Organization Name** | **Type of Organization** | **Does the hospital have previous experience partnering with this organization? (Y/N)** | **Organization’s role in intervention leadership and implementation (high level summary)** |
| Colorado Access-UCH | RAE | Yes | Colorado Access collaborates with UCHealth to provide transitions of care services for our complex patients by attending UCHealth’s Complex Care Transitions meeting a minimum of 1x per month, with the option of more frequent reviews for higher volume hospitals. |
| Colorado Community Health Alliance-MHS, PPRH, LPH, BFH | RAE | Yes | Colorado Community Health Alliance collaborates with UCHealth to provide transitions of care services for our complex patients by attending UCHealth’s Complex Care Transitions Committee a minimum of 1x per month, with the option of weekly reviews for higher volume hospitals. |
| RMHP—PVH, MCR | RAE | Yes | Rocky Mountain Health Partners collaborates with UCHealth to provide transitions of care services for our complex patients by attending UCHealth’s Complex Care Transitions meeting a minimum of 1x per month, with the option of more frequent reviews for higher volume hospitals. |