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I. EXECUTIVE SUMMARY

Utah’s Health System Transformation Process

Utah began the health system transformation process in 2011, with a clarion call from Governor Gary Herbert. He directed the Utah Department of Health (UDOH), to create a plan that would reduce Utah’s health costs, provide a trained health workforce (new and existing) to meet the cost reduction challenge and develop measurable innovations that would lead to more patient inclusion in assuring the quality of their own health care.

The first phase in meeting the governor’s directive began with the 2011 Governor’s Health Summit. Community leaders met in policy sessions to discuss possible actions the state could take in five key areas: health information, health workforce, prevention and wellness, payment reform and quality/patient safety (tort reform). A second health summit in 2012 reviewed additional work needed in response to federal health reform efforts.

In early 2013, Utah was awarded a State Innovation Models (SIM) Grant from the Center for Medicare and Medicaid Innovation to begin the process of putting the previous policy discussions into action. To guide this innovation effort, a governing body of key community leaders from business, health care delivery, health workforce education, mental health systems and government was established. The body, known as the Executive Policy Group (EPG), was led by then Lt. Governor Greg Bell. The EPG collaborated with over 100 other community leaders to continue the work that began at the 2011 Summit and led the effort to develop the Utah Health Innovation Plan (the Plan).

Under the direction of the EPG, five work groups were established to develop the topics from the first Summit. The first step for these work groups was to identify goals or “aims” needed to implement interventions or solutions targeted at moving Utah’s “fee-for-service” health models to a “value-based” purchasing system. Keeping the vision of the Plan for “better health, better health care and lower costs for all Utahns,” at the forefront, the work groups spent eight months identifying aims and interventions or recommended activities that would need to be conducted to test and implement effective solutions. The aims were outlined in a progress report and presented at the 2013 Governor’s Health Summit.

Once the work groups had developed their aims and interventions, the next step was to identify the synergies between the efforts of five work groups and combine them into one cohesive plan. The critical aims with their accompanying interventions, are the basis for the state’s health innovation plan.

Utah Health Innovation Plan

The Plan is a statewide roadmap to achieve health systems transformation. It requires changes in the behavior of providers, purchasers and consumers. It has taken nearly three years, countless hours of work and dedicated community input to develop key components as outlined in the plan. In order to achieve the vision of improved health care value (better health, better healthcare, and lower cost) the Plan sets out four critical aims:

AIM 1: To adapt to and perform well in a value-based purchasing environment (value = quality outcomes/cost)
AIM 2: To facilitate end-of-life preferences for Utah citizens so they receive care with dignity, respect and efficiency
AIM 3: To increase access to primary care and behavioral health
AIM 4: To create community-clinical linkages and healthful environments

Within each of these aims, the Plan provides additional detail on what can be done to accomplish the aim and how to measure the results. Each aim’s subaims, interventions, expected outcomes, and outcome measures provide additional detail to the Plan’s overall roadmap.

The Plan will be implemented through a series of interventions that are outlined in the Aims and Intervention diagram in Appendix B. The diagram details steps that can be taken over the next three to five years to accelerate the transformation towards a Value-based purchasing environment. A timeline for these interventions is outlined in Appendix C. Critical interventions begin as early as spring 2014.

Value-Based Purchasing (VBP)

Aim 1 details how Utah will adapt and perform in a VBP environment through improved utilization of health information technology tools and the development of value-based metrics which will inform providers’ and payers’ purchasing decisions.

A fundamental element of developing VBP systems is the ability of those systems to follow patients across time and sectors. Subaim 1.1 and 1.2 will increase stakeholder use of a state-wide master person index (sMPI), improve the use of electronic medical records (particularly in rural areas), provide a more secure clinical health information exchange, and increase the accessibility and usefulness of the All Payer Claims Database (APCD).

Subaim 1.3 and its accompanying intervention form the basis for a value-based transformation process. The intent of the subaim is: To have 80 percent of Utah’s covered lives involved in a VBP plan.
The intervention associated with this subaim is to convene a group of community leaders (payers and providers) that will formulate a set of outcome metrics that can be used to determine value in health care. It is anticipated that this intervention will be completed near the end of 2014 and will produce a set of relevant metrics that can be used to measure quality in light of cost. A second intervention will then establish a test comparing the use of the VBP metrics by at least three groups of payers and/or providers. The selected groups would utilize the metrics with their VBP efforts to determine if the combination will enhance their ability to increase quality and or decrease costs.

Subaims 1.4 and 1.5 concentrate on training providers to practice in a value-based environment. Current training programs will be aligned with VBP metrics in order to better prepare future practitioners to perform in VBP settings. Additionally, existing providers will simultaneously receive training in critical value-based skills in order to transform the practicing environment.

End-of-Life Care

Aim 2 focuses on helping patients designate their own life sustaining treatments. Subaims under Aim 2 look to make sure that physician ordered life sustaining treatments (POLSTs) and patient advanced directives are electronically available to ensure that patient wishes regarding end-of-life care are honored. Additionally, providers will be taught how to have crucial conversations with patients regarding end of live care and how to assist patients in the development and institutionalization of POLSTs and advanced directives.

Primary Care and Behavioral Health

Aim 3 seeks to improve health care value by increasing access to primary and behavioral health. The goal is to provide these critical services to more Utahns through increased behavioral health screenings, training and use of interdisciplinary teams, and use of telehealth services.

Community Health

Aim 4 will create community-clinical linkages through increasing the use of community health workers within health systems and plans. The Plan envisions training programs for community health workers which will teach them to incorporate general healthy behaviors in patient interactions with emphasis on tobacco cessation, diabetes control and management and overall weight and nutrition training.

Plan Evaluation

In order to determine whether the proposed aims and interventions are having the intended impact, the results from the interventions will be evaluated against the expected outcomes from the Plan. Data will need to be collected from various sources, including:

- Provider surveys
- Medicare administrative claims
- State Medicaid and Children’s Health Insurance Program (CHIP) information
- Beneficiary experience surveys
- Site visits with practices
- Focus groups with beneficiaries and their families and caregivers, practice staff, direct support workers, and others (e.g. payers), for program evaluation.

In addition, a financial analysis will be done to determine the return on investment on these interventions. A preliminary forecast was performed for the state as part of the Plan design process. The Plan’s financial analysis forecasts a level of spending for each enrollment group (Medicare, Medicaid, private payers, CHIP and dual-eligible), and then compares it to projected spending under an intervention. The forecast estimates that by transforming the health care economy towards a VBP system, Aim 1, Subaim 1 will provide an average of $332 per member savings over a 3-year period. Table 1 shows the savings estimates in a three and five year period.

### Table 1. Estimated Savings by State-wide Adoption of VBP

<table>
<thead>
<tr>
<th>Population</th>
<th>3-yr NPV per person</th>
<th>5-yr NPV per person</th>
<th>Percentiles (5-yr NPV per person)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$332</td>
<td>$1,151</td>
<td>25th: $840, 50th: $1,152, 75th: $1,467</td>
</tr>
<tr>
<td>Medicare</td>
<td>$287</td>
<td>$1,066</td>
<td>25th: $474, 50th: $1,069, 75th: $1,644</td>
</tr>
<tr>
<td>Medicaid</td>
<td>$256</td>
<td>$949</td>
<td>25th: $449, 50th: $956, 75th: $1,452</td>
</tr>
<tr>
<td>Dual-eligible</td>
<td>$1,589</td>
<td>$5,435</td>
<td>25th: $1,145, 50th: $1,579, 75th: $2,024</td>
</tr>
<tr>
<td>CHIP</td>
<td>$48</td>
<td>$182</td>
<td>25th: $125, 50th: $176, 75th: $238</td>
</tr>
<tr>
<td>Private</td>
<td>$363</td>
<td>$1,232</td>
<td>25th: $836, 50th: $1,240, 75th: $1,636</td>
</tr>
</tbody>
</table>

Plan Overview

Additional details regarding the Plan can be found in the following sections:

- **Section II. Utah Health Innovation Vision, Mission and Aims**
- **Section III. Utah’s Current Health Care Environment- An Overview**

A detailed description of current population and disease factors are included in this section. The section also
includes current state and federal health reform and grant initiatives as well as health care cost performance trends.

Section IV. Design Process and Deliberations
This section summarizes the process used to develop the Plan and describes stakeholder involvement.

Section V. Utah’s Road Map to Health System Transformation
This section outlines the development of the aims and interventions that will transform the current fee-for-service environment to a quality-based purchasing system. The rationale and implementation plan including cost for each intervention are included.

Sections A, B, and C detail Utah’s implementation of the aims and interventions in the Plan and will accelerate the value-based transformation in Utah. The expected outcomes of that transformation and the subsequent cost savings expected as a result of their implementation are also detailed.

Section D details aims and interventions

Sections E and F outline the milestones that can be expected during the Plan’s implementation and list the transformation timeline in spreadsheet format

Section G provides an explanation of how the Plan will be evaluated in meeting the outlined milestones, and the documentation or process for analyzing financial savings and cost impacts.

II. Utah Health Innovation Vision Mission and Aims
The Vision of the Plan seeks to improve Utah’s overall health system performance leading to:

- Better health
- Better healthcare
- Lower costs

This vision statement reflects the leadership of Utah Governor Gary Herbert who first challenged the UDOH in 2011 to create a health plan for the state that would reduce Utah’s health costs, provide an adequate health workforce trained to meet the cost reduction challenge and develop measurable innovations that would lead to more patient inclusion in assuring the quality of their own health care. The Plan is the result of work by many dedicated citizens proving that “states are the true innovators.” The Plan’s vision statement was adopted in April at the first meeting of the EPG.

Utah Health Innovation Executive Policy Group
Under the direction of Governor Gary Herbert, then Lt. Governor Greg Bell chaired the EPG. Members include:

- Lt. Governor Spencer Cox, Chair (Nov-Dec)
- W. David Patton, PhD. Executive Director, Utah Department of Health
- Palmer DePaulis, Executive Director Utah, Department of Human Services (Nov-Dec)
- Todd Kiser, Commissioner, Utah Insurance Department
- Representative Jim Dunnigan, Utah State House of Representatives
- Senator Evan Vickers, Utah State Senate
- John Oaks, Vice President, Government and Payer Relations, IASIS Health Care
- Vivian Lee, M.D., MBA, PhD, Senior Vice President for Health Science, University of Utah Health Science Center:
- Brian C. Hales, MD, President, Utah Medical Association
- David Entwhistle, Board Chair, Utah Hospital Association
- John Ward, CFO, Harmon’s Grocery Stores
- Gregory J. Jones, Pharmacy Director, Harmon’s Grocery Stores
- Ben McAdams, Salt Lake County Mayor
- Charles Sorenson, President and CEO, Intermountain Healthcare
- John Hanshaw, President, Mt. Star Healthcare
- George Meyers, Senior Vice President, and Director of Human Resources, Zions Bank

At the November 2013 EPG meeting, a mission statement was adopted that represents the final aims and interventions included in the Plan and were adopted with some revisions by the EPG. The mission statement is meant to propel the Plan process forward into the implementation phase.

Utah Health Innovation Plan Mission Statement
“The Plan seeks to improve the health of all Utahns through the implementation of a VBP health care environment. This transformative environment will lower costs through improved quality and access. To achieve transformation the Plan aims to:

1) improve performance in a VBP environment;
2) facilitate end-of-life preferences;
3) increase access to primary and behavioral care; and
4) create community-clinical linkages and healthful environments.”

The Plan implements this mission statement using the guiding principal set out by Governor Herbert that a healthy population and an efficient delivery system are critical to the economic growth and well-being of Utah’s citizens.

The Plan outlines Utah’s current health care environment with demographics and descriptions of current delivery systems. It further outlines the aims of the Plan:
III. UTAH’S CURRENT HEALTH CARE ENVIRONMENT – AN OVERVIEW

A. Population Demographics

The characteristics of Utah’s population affect population health in important ways. We refer to these measures as the demographic context of Utah’s population, or in more recent terminology, the social determinants of health. Some of these measures were reported in the Utah Statewide Health Status Report (Utah Department of Health Office of Public Health Assessment, 2013) and are summarized below.

- The Utah population is the youngest in the nation. (Median age 29.6 years versus 37.3 according to the 2011 American Community Survey (ACS)). Having a large percentage of the population made up of young children emphasizes the importance of making available key preventive health measures (e.g. immunizations) and age-appropriate screenings to identify developmental delays at a time when treatment is most effective.
- Utah has the highest birth rate in the nation, indicating that Utah has a greater relative need for preconception, prenatal, neonatal and postpartum care.
- Utah residents have a longer life expectancy at birth which indicates an increased need for resources and support for older residents, especially for those living with the types of chronic illnesses that are known to be more common in the elderly.
- Utah has a higher percentage of households made up of married adults with children and a lower percentage of households with children headed by a single female than the US. These characteristics likely support Utah residents as adults and children in single parent households are at higher risk for adverse health outcomes and unhealthy behaviors.
- Utah also has a higher high school graduation rate than the US as a whole. Although the exact reasons are unknown, higher education attainment is associated with improved health outcomes. Education level is strongly related to health status. People with a higher level of education are more likely to understand the consequences of life choices, are more capable to make good life choices, and are more able to deal with stress and other environmental factors that influence health. In addition, education strongly correlates with income and work benefits.
- Health status is strongly linked to income. Poverty is associated with negative health effects, especially for children where it can have a serious impact on healthy development. And though Utah’s adult and child poverty rates have historically been lower than the U.S., in recent years they have been increasing and are approaching U.S. rates. Utah has a slightly higher median household income than the U.S. but per capita income is lower due to Utah’s larger families.
- The White, non-Hispanic population continues to be the largest in Utah, but minority Black, Asian, Pacific Islander and Hispanic populations are growing at a faster rate than the state population as a whole. Compared to the U.S., a larger percentage of Utah’s population is America Indian/Alaska Native (1.2% versus 0.8%) and Native Hawaiian/Pacific Islander (0.9% versus 0.2%). Our current health system was developed based on the needs and perspectives of the White/Anglo-American Utah culture. As a result, Utahns of other cultures often experience barriers to receiving culturally sensitive and appropriate health care. This will need to improve in order to eliminate disparities in health care access and health outcomes. Some racial groups have a genetic predisposition for certain kinds of diseases. As our racial distribution changes, we can expect to see changing trends in those diseases.

Health Insurance Coverage Estimates in Utah:

Health insurance coverage in Utah is typically estimated using a set of state-added health insurance and access questions that are included annually on the Utah Behavioral Risk Factor Surveillance System (BRFSS) survey questionnaire. The Utah BRFSS estimates differ slightly from other common sources of information about the uninsured in Utah including the US Census Bureau’s Current Population Survey (CPS) and the ACS. According to the 2012 Utah BRFSS, 13.2% of Utah residents (approximately 376,700) did not have health insurance coverage. Approximate percentages of residents with specific types of coverage are summarized below. The estimates are similar to those provided by the Utah Department of Insurance Report that is cited later in this document.

Percentage and numbers of Utah residents covered by the major insurers in the state (2012 BRFSS/Enhanced Health Insurance and Access Questions*):

- 64.3% (1,835,700) Private through employer
- 17.2% (488,800) Purchased directly
- 12.0% (342,000) Medicare.
- 10.5% (300,300) Medicaid
- 1.9% (53,400) CHIP
- 4.6% (131,400) Military
- 0.8% (22,700) Student Health Plan
- 13.2% (376,700) Uninsured

* Respondents can select all that apply and therefore may choose more than one type of coverage. This means that the sum of the percentages above will total to 100%.

Profiles of Major Payers in Utah

Utah’s residents receive their health insurance coverage through health plans sponsored by the government, employers, and commercial health insurers. The Utah Insurance Department has attempted to estimate how much of the state is insured by each source of health insurance. The estimate is for comprehensive health insurance coverage only (also known as major medical).

- Approximately 54 percent of Utah’s commercial health insurance market is comprehensive health insurance (also known as major medical). The comprehensive health insurance industry serves approximately 30 percent of Utah residents.
- In 2010, 350 commercial insurers reported commercial health insurance business in Utah. Utah’s commercial health insurance market is highly concentrated among nine domestic commercial health insurers, which account for nearly 70% of the commercial market.
• The top three policy types by market share were comprehensive health insurance (54%), Medicare Advantage products (18%) and the Federal Employee Health Benefit Plan (8%).

• A very small number of Utah residents are enrolled in Utah’s Comprehensive Health Insurance Pool (HIPUtah). HIPUtah was established in 1991 to specifically address the problem of people with serious medical conditions, such as cancer, diabetes, heart disease and other chronic illnesses that made them unable to obtain health insurance at any price.

• Interestingly, group policies report higher premiums per member per month than individual policies. For small employer groups (2-50), policies are based on the health of the group so even the health status of one individual can affect the rating.

• Comprehensive health insurance plans are classified into four major plan types: Fee for Service (FFS), Preferred Provider Organization (PPO), Health Maintenance Organization (HMO), and Health Maintenance Organization with Point of Service features (HMO with POS).

Table 3. Total Comprehensive Market by Plan Type

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Member Count</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee for Service</td>
<td>28,097</td>
<td>7.44%</td>
</tr>
<tr>
<td>Preferred Provider Organization</td>
<td>269,521</td>
<td>28.79%</td>
</tr>
<tr>
<td>Health Maintenance Organization</td>
<td>170,008</td>
<td>21.98%</td>
</tr>
<tr>
<td>HMO with Point of Service</td>
<td>362,904</td>
<td>41.79%</td>
</tr>
<tr>
<td>Total</td>
<td>830,530</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Data Source: Utah Accident & Health Survey

B. Health Status, Issues and Barriers

Utah has a relatively young and healthy population, though there are areas and sub-populations of concern within the state. Many important measures of the health of Utah residents are reported and routinely updated on Utah’s Indicator-Based Information System for Public Health (IBIS-PH). Most recently, a selection of IBIS-PH Indicators were used to develop the Utah Statewide Health Status Report. Much of the information summarized below is from that report. The report included Healthy People 2020 Objectives where available, and addressed at risk populations within the state. Information was arranged in topic areas as outlined below:

Healthy Beginnings: A healthy pregnancy and birth are vital to the well-being of women and infants particularly, but also families and communities. Early intervention for at-risk children and families can promote optimal physical and mental development for all children.

• Prenatal Care: The percentage of women in Utah entering prenatal care in the first trimester of pregnancy has increased from 71.6% in 2009 to 73.1% in 2010, but the Healthy People Target is 77.9%. In 2010, Utah had a lower percentage of pregnant women who received prenatal care in the first trimester than in the U.S. overall. Lack of early prenatal care is strongly linked with poverty and a lack of insurance coverage. At risk populations include:
  • American Indians/AK Natives
  • Asians
  • Blacks/African Americans
- Native HI/Pacific Islanders
- Hispanics/Latinos
- Women under 25 or over 40 years of age
- Women with a high school education or less
- Unmarried women

**Infant Mortality:** During 2010, 251 Utah infants died during their first year of life. While Utah’s overall rate is lower than in the U.S. as a whole, there are disparities by racial groups. For Utah’s Asian and Pacific Islander populations, the rate of infant mortality is nearly twice that of Whites. Among Black women, the rate is more than double that of Whites.

**Maternal Mortality:** Utah’s maternal mortality has decreased from 36 deaths per year in 1940 to a range of 2–11 deaths per year between 1999 and 2009. However, Utah’s rate of maternal mortality has now nearly doubled from what it was in 2004. Utah’s maternal mortality rate is higher than the U.S. rate. At risk populations include:
- Mothers under 18 years of age
- Mothers over 40 years of age
- Mothers who did not receive adequate prenatal care
- African American/Black women

**Low Birth Weight:** Utah’s low birth weight percentage increased from 6.0% in 1991 to 7.0% in 2010. While this is below the HP2020 Objective target (7.8%) and is lower than the US rate, the increasing trend in Utah is of concern. At risk populations include:
- Asians
- Blacks/African Americans
- Hispanics/Latinos
- Mothers under 25 or over 39 years of age
- Women with lower educational attainment
- Women with lower income
- Unmarried women

**Adolescent Births:** Utah’s adolescent birth rate was 27.6 births per 1,000 females aged 15–19 in 2010. Utah’s adolescent birth rate has declined steadily since 2007 and continues to be below the U.S. rate. At risk populations include:
- American Indians/AK Natives
- Native HI/Pacific Islanders
- Hispanics/Latinos

**Breastfeeding:** Utah rates are higher than the U.S. rates for ever breastfeeding during 2000–2008. The percentage of infants who were ever breastfed declined between 2006 (90.7%) and 2008 (84.5%), the lowest rate since 2002. 2010 data indicate significant differences in the percentage of infants breastfed at discharge between birth facilities in Utah. At risk populations include:
- American Indians/AK Natives
- Women under 20 or over 44 years of age
- Women with lower educational attainment
- Unmarried women

**Immunizations 4:3:1:3:3:1:** Utah’s coverage levels decreased from 76.6% of 2-year-old children fully immunized in 2008 to having 70.3% of 2-year-old children fully immunized in 2009. In 2010 70.6% of 2 year old Utah children were fully immunized. This means that in 2010, 29.4% of 2-year-olds were unprotected against at least some types of preventable serious childhood illnesses. At risk populations include:
- Children whose mothers are under 20 years of age
- Third or subsequent children

**Healthy Behaviors and Risk Factors:** Many health outcomes are directly linked to certain health behaviors and risk factors. Practicing healthy behaviors, like exercising, or refraining from unhealthy behaviors, like smoking, can markedly reduce an individual’s risk for many chronic conditions and adverse health outcomes.

- **Smoking Among Adults:** In 2010, an estimated 8.8% of Utah adults smoked cigarettes every day or some days. However, in 2011, using the new BRFSS methodology that includes cell phones, an estimated 11.8% of Utah adults smoked (crude rate). And even though Utah has the lowest adult smoking rate of US states and has met the HP2020 target, there is still room for improvement. At risk populations include:
  - Individuals with lower levels of formal education
  - Individuals with lower household income
  - American Indians/AK Natives
  - Blacks/African Americans
  - Hispanics/Latinos

- **Adult Smoking Cessation Attempt:** In 2010, 65.2% of current smokers in Utah tried to quit smoking during the past 12 months. In 2011, using the new BRFSS technology, the estimate was 63.5%. The HP2020 target for this measure is 80%, so Utah needs to make some progress in order to meet this target. Quitting smoking has major and immediate health benefits including lower a person’s risk of many chronic diseases.

- **Smoking Among Adolescents:** The rate of cigarette smoking among Utah high school students was 5.9% in 2011, which is lower than the US and meets the HP2020 target. Adolescent cigarette smoking has declined by 50% since 1999 when 11.9% of high school students reported that they had smoked cigarettes in the past 30 days.
• **Adults Alcohol Consumption: Binge Drinking:** 11.2% of Utah adults reported binge drinking in the past 30 days in 2011 (age-adjusted rate). The percentage of adults who reported binge drinking was substantially lower in Utah than in the U.S and meets the HP2020 target. At risk populations include:
  - Males
  - Younger adults
  - Individuals experiencing poor mental health
  - American Indians/AK Natives
  - Hispanics/Latinos

• **Substance Abuse in Adolescents: Alcohol:** 15.1% of Utah high school students reported having had at least one drink of alcohol in the past 30 days in 2011. This rate is consistent with the recommended amount of physical activity for this age group. Utah high school students reported getting at least 60 minutes of physical activity at least five days per week, which is one measure of an adequate amount of physical activity. In 2011, 48.3% of student’s grades 9–12 reported getting the recommended amount of physical activity, meeting the HP2020 target of 47.9%. Compared to the nation, more Utahns are physically active. Nationally, the rate was 51.4%. At risk populations:
  - Individuals with lower levels of formal education
  - Hispanics/Latinos

• **Physical Activity Among Adolescents:** In 2011, 56.1% of Utahns reported getting the recommended amount of physical activity, meeting the HP2020 target of 47.9%. Compared to the nation, more Utahns are physically active. Nationally, the rate was 51.4%. At risk populations:
  - Individuals with lower levels of formal education
  - Hispanics/Latinos

• **Physical Activity Among Adolescents:** In 2011, 48.3% of student’s grades 9–12 reported getting the recommended amount of physical activity. In 2011, 40.7% of girls and 55.7% of boys in Utah high schools reported getting at least 60 minutes of physical activity at least five days per week, which is one measure of an adequate amount of physical activity for this age group. Utah high school students reported similar rates of recommended physical activity in 2011 (48.3%) as the U.S. (49.5%).

• **Obesity Among Children and Adolescents:** The percentage of obese elementary school students in Utah has increased dramatically over the past 16 years. Overall, 9.7% of elementary school students were obese and 20.4% were at an unhealthy weight in 2010. Data from a 2011 high school survey show that approximately 8.6% of Utah high school students are obese and 20.1% are at an unhealthy weight. The high school obesity rate rose from 5.4% in 1999. A total of 13.0% of American high school students were obese (2011 national data) compared to 8.6% of Utah public high school students (2011 Utah data).

  • **Sun Safety Measures:** In 2010, 64.9% of Utahns aged 18 years and older reported practicing sun safety. The current rate of sun safety practice in Utah is below both the state and national Healthy People 2020 goals. At risk population:
    - Younger adults
  
  • **Seat Belts: Safety Restraint Use:** In 2011, 89.2% of Utah drivers and front seat passengers were observed wearing a seat belt or safety restraint. Individuals who live in small-population counties are less likely to be observed wearing a seat belt than drivers and front seat passengers in large-population counties. Utah is below the HP2020 target of 92.4% for this measure. At risk populations include:
    - Males
    - Individuals with lower levels of formal education
    - Individuals who live in rural counties

**Chronic Disease and Conditions:** Chronic diseases cause limitations in daily living for millions of Americans. However, as costly and common as many chronic diseases are, they are also some of the most preventable health problems in the U.S.

**Utah Chronic Disease Prevention and Health Promotion State Plan**

UDOH’s Bureau of Health Promotion’s “Utah Chronic Disease Prevention and Health Promotion State Plan – Partnering for a Healthy State.” This plan guides the work of public health and its partners in chronic disease prevention, management and health promotion across all sectors of the community. It was created with input from a variety of partners representing government, community-based organization, faith-based organization, business/industry, health care organizations, and private organizations. The Utah Chronic Disease and Health Promotion State Plan, in part, focuses on two key areas that are relevant to the Plan: health care systems (activities within the health care system at large and with individual physicians) and community-clinical linkages (activities that link the health care system and individual physicians with resources in the community).

**Asthma Prevalence:** 8.7% of Utahns reported (or had a parent report for them) having asthma in 2011 (crude rate). Utah’s adult asthma prevalence has risen since 2001 and passed the national average in 2010 (9.0% compared to 8.7%). At risk populations include:
  - American Indians/AK Natives
  - Non-Hispanic Whites

  • **Air Quality - Ozone:** Several of the most urban counties in Utah have days that exceed the new ozone standard of 0.075 ppm.
• **Air Quality - PM2.5**: Several of the most urban counties in Utah have days that exceed the PM<sub>2.5</sub> standard. This may, in part, be due to Utah’s unique geography and seasonal conditions. PM<sub>2.5</sub> levels increase seasonally in the winter and are often due to inversions.

• **Diabetes Prevalence**: Adults: The prevalence of diabetes continues to increase, both nationally and in Utah. In 2010, approximately 6.5% of Utah adults aged 18 years and older had been diagnosed with diabetes, more than double the 1989 prevalence (3.1%) and compared to 9.8% nationally. This means roughly 128,000 Utah adults had been diagnosed at some time in their lives, while studies show that an additional 45,000 Utah adults may have diabetes but don’t yet know it. At risk populations include:
  - Older Individuals
  - American Indians/AK Natives
  - Blacks/African Americans

• **Coronary Heart Disease Deaths**: Utah’s crude death rate due to coronary heart disease was 49.4 deaths per 100,000 people in 2010, which is below the HP2020 target. Utah’s age-adjusted death rate from coronary heart disease of 83.8/100,000 was lower than the U.S. rate of 126.0/100,000 in 2007, the most recent year with comparable data, and is slightly below the HP2020 target. At risk populations include:
  - Older Individuals
  - Non-Hispanic Whites

• **Breast Cancer Deaths**: In 2010, 255 Utah women died from breast cancer, for a crude death rate of 17.8 per 100,000 Utah women. On average, Utah has consistently had a lower age-adjusted breast cancer mortality rate than the U.S. (19.9 per 100,000 versus 22.8 per 100,000 in 2007, the most recent year with comparable data), and is slightly below the HP2020 target. At risk populations include:
  - Older women
  - Native Hawaiian/Pacific Islanders
  - Non-Hispanic Whites

• **Colorectal Cancer Deaths**: In 2010, 250 Utahns died from colon cancer (a crude death rate of 8.8 deaths per 100,000 population). Since 1980, Utah’s age-adjusted colorectal cancer mortality rate has been consistently lower than the U.S. rate (12.1 per 100,000 versus 16.7 per 100,000 in 2007), and has met the HP2020 target. At risk population:
  - Older adults

• **Lung Cancer Deaths**: In 2010, 453 people in Utah died of lung cancer (a crude rate of 15.9 per 100,000 population). Utah’s age-adjusted lung cancer mortality rate has been significantly lower than the U.S. for all years shown in the trend graph. Utah’s age-adjusted lung cancer mortality rate significantly decreased from 23.4 per 100,000 population in 2005 to 20.85 per 100,000 population in 2010 which is significantly below the US HP2020 target. At risk populations include:
  - Older individuals
  - Black/African Americans

• **Melanoma of the Skin Deaths**: From 2003–2007, Utah had faster growing incidence and mortality rates for melanoma when compared to the U.S. In 2010, 84 Utah residents died from melanoma, for a crude death rate of 2.4 per 100,000. In 2008, the age-adjusted death rate from melanoma in 2007 was 3.0 per 100,000 in Utah vs. 2.7 per 100,000 in the U.S. This rate in Utah exceeds the HP2020 target. At risk population:
  - Males

• **Prostate Cancer Deaths**: In 2010, 222 Utah men died from prostate cancer (a crude death rate of 15.5 per 100,000 Utah males). The age-adjusted prostate cancer mortality rate has been decreasing, at 24.9 per 100,000 males in Utah and 23.5 per 100,000 males in the U.S. in 2007. At risk population:
  - Non-Hispanic Whites

• **Health Status: Mental Health in Past 30 Days**: In 2010, approximately 15% (crude rate) of Utah adults reported seven or more days when their mental health was not good in the past 30 days. Looking at age-adjusted rates for 2010, significantly fewer Utah adults (14.5%) reported seven or more days when their mental health was not good in the past 30 days when compared to adults in the U.S. as a whole (15.8%). At risk populations include:
  - Younger individuals
  - Individuals with less formal education
  - Individuals with lower household income
  - Females
  - Whites
  - American Indians/AK Natives
  - Native Hawaiians/Pacific Islanders

**Injury**: One person dies every three minutes from injury in the U.S. In 2009, more than 1,500 Utahns - or 30 people every week - died from injuries. Each year, treating injuries costs Utahns an average of $486 million in hospitalization and emergency department charges. Injuries are the leading cause of death for Americans and Utahns ages 1–44, with poisonings, firearms, and motor vehicle crashes the leading methods.
• Fall Injury Hospitalizations and Deaths: Between 2008–2010 there were 496 fall-related deaths and 14,520 hospitalizations in Utah. A significant majority of fall hospitalizations and deaths occur in the 85+ age group. The rate of fall hospitalizations is higher for women; however men have a higher fall death rate. At risk populations include:
  - Older Individuals
  - Urban county residents

• Motor Vehicle Traffic Crash Deaths: Motor vehicle crash deaths are the second leading cause of unintentional injury death in Utah. There has been a significant decrease in the motor vehicle crash death rate in Utah over the past 20 years. The state rate of 9.0 deaths per 100,000 was below the HP2020 US target of 12.4 deaths per 100,000 population and is lower than the US rate. At risk populations include:
  - Males
  - Rural area residents
  - Individuals over 65 years of age
  - American Indians/AK natives

Communicable Disease: Though previously the leading cause of death, huge public health advancements in the control of communicable diseases have reduced the burden of many of these diseases. However, many communicable diseases remain a threat to public health, however, and continued efforts are necessary to continue to control, and possibly further decrease, disease rates.

• Immunizations: Influenza, Adults: In 2011 56.9% of Utah adults aged 65+ years reported having received an influenza vaccination in the past 12 months (New BRFSS methodology, crude rate) compared to the US rate of 60.6%. Over the past five years in Utah, the percentage of adults aged 65+ years, who report having had an influenza vaccination in the past 12 months has declined slightly. At risk population:
  - Hispanics/Latinos

• Immunizations: Pneumonia, Adults: In 2011 70.4% of Utahns aged 65 years and older reported having received a pneumococcal vaccination at any point in their lifetime (new BRFSS methodology). The rate of pneumococcal vaccination among Utahns aged 65 years and older has remained relatively steady over the past decade and is comparable to the US rate. The Utah rate of pneumococcal vaccination for adults aged 65 years and older is below the Healthy People 2020 national goal of 90%. At risk population:
  - Hispanics/Latinos

• Measles Infections: The recent low rates of measles infection in Utah can be attributed both to improved immunization rates, and the natural cycle of the disease. From 2005 through 2010, Utah has had lower measles rates than the U.S., with only one confirmed case being reported during that period of time. In the spring and early summer of 2011, Utah experienced an outbreak of measles with 15 confirmed cases reported. There have been other measles outbreaks reported in the U.S. in 2011 as well.

• Pertussis Cases: In 2010 there were 12.3 reported cases per 100,000 population of pertussis in Utah compared to 1.1 cases per 100,000 in the U.S. Pertussis rates have been increasing in Utah since 2008. The majority of pertussis cases occurred in people aged 15 years and older, however incidence of the disease was highest in children younger than age one. These children are also at the highest risk for serious complications from pertussis.

• Chlamydia Cases: In Utah there were 234.9 reported cases per 100,000 population of chlamydia in 2010. The rate of chlamydia in Utah has consistently been below the national rate; however, both rates are on the rise. Chlamydia is the most frequently reported notifiable disease in Utah.

• Gonorrhea Cases: In Utah there were 10.9 reported cases per 100,000 population of gonorrhea in 2010. The rate of gonorrhea in Utah has consistently been below the national rate. Gonorrhea may be reported more frequently in men than women because most infections in men produce symptoms that cause them to seek testing and treatment, while infections in women may not produce significant symptoms until complications develop (e.g. PID). At risk populations include:
  - Males
  - Young adults
  - Blacks/African Americans
  - Hispanics/Latinos

• Syphilis Cases: Primary and Secondary: In Utah there were 23 reported cases per 100,000 population of syphilis in 2010, an increase from 2009 (12.2 cases per 100,000). The rate of syphilis in Utah has consistently been below the national rate. Syphilis may be reported more frequently in men than women because most infections in men produce symptoms that cause them to seek testing and treatment, while infections in women may not produce significant symptoms until complications develop (e.g. PID). At risk populations include:
  - Males
  - Hispanics/Latinos

• HIV and AIDS: As of October 2011, a total of 2,569 individuals diagnosed with HIV (regardless of AIDS diagnosis) were currently known to be living in Utah. There has been an increase in the number of people living with HIV disease in Utah because AIDS-related deaths have been decreasing. The majority of people living with HIV in Utah are male and aged 40–59 years.
Access to and Utilization of Care: Access to health care is an issue for many Utah residents, whether it is due to financial barriers (poverty and/or lack of insurance), geographic barriers (distance to needed services), cultural barriers (including language/translation issues), or when needed services are not available.

• Cost as a Barrier to Health Care: In 2010, the crude percentage of Utah adults who reported being unable to see a doctor in the past 12 months due to cost was 14.2%. This is the highest the measure has been since tracking started in 2003. This percentage was the highest for adults aged 18–24 (20.5%) and lowest for Utah adults aged 65 and older (3.8%). Utah adults with low incomes had a higher rate of reporting cost as a barrier to health care than those with higher incomes. When comparing Utah to the U.S. as a whole, the age-adjusted percentage of adults who reported they were unable to get needed health care in the past year due to cost has been similar over the years. In 2011, this percentage was 17.3% in the U.S. compared to 16.3% in Utah, not a statistically significant difference. At risk populations include:
  o Individuals with lower household income
  o Individuals with lower levels of formal education
  o Young adults
  o Uninsured Individuals

• Health Insurance Coverage: An estimated 13.3% of all Utah residents did not have health insurance coverage in 2011. The estimate may actually be as high as 15.3%, or 421,900 Utah residents, according to a Census Bureau survey that is mailed and includes follow-up phone calls and face-to-face interviews when needed. The US rate, according to the national survey, is comparable to Utah’s rate. By either measure, the uninsured rate in Utah has increased in recent years. At risk populations include:
  o Individuals with lower household income
  o Young adult males
  o Unemployed individuals
  o American Indians/AK Natives
  o Asians
  o Blacks/African Americans
  o Hispanics/Latinos

• Physicians per 10,000 Civilian Population: The physician supply in Utah has kept up with population growth but is lower than in the U.S. as a whole, with the gap widening over time. From 1997 to 2008, there were between 19.6 and 21.2 active physicians per 10,000 civilian population, with 20.8 in 2008 compared to 27.7 per 10,000 civilian population in the U.S.

• Routine Medical Care Visits: In 2010 the percentage of individuals who reported having a routine check-up in the past year in Utah was below the national average, 59.9% compared to 66.9% (age-adjusted rate). Among Utah adults, women had a higher rate (62.0%) of having a routine check-up in the past year than men (55.2%). At risk population:
  o Uninsured adults

• Routine Dental Visits: In 2010, 72.7% of Utahns aged 18 years and older reported a dental visit in the past year (68.7% using new BRFSS methodology). In state surveys, Utahns have reported problems with access to dental care. The cost of dental care is the most commonly cited reason for problems with access. Utah adults with dental insurance were more likely to report a dental visit in the past year than those without dental insurance.

• Asthma-related Emergency Department Visits: Tracking rates of emergency department visits for asthma can aid in identifying populations or areas with inadequate access to routine medical care. Utah’s rate of ED visits for asthma is well below the Health People 2020 objectives for ages 0–4 and 5–64. However, the ED visit rate in Utah for adults aged 65+ (17.2 per 10,000) exceeds the HP2020 objective. At risk populations include:
  o Male children
  o Adolescents
  o People 65+
  o Adult females

• Diabetes Hemoglobin A1C Tests: From 2009–2011 an average of 66.0% of Utah adults with diabetes reported having had at least two hemoglobin A1C tests in the past year (age-adjusted rate). This rate is below the US HP2020 target of 71.1%. Tight control of A1C levels (i.e., maintaining a level of less than 7%) has been shown to be associated with substantial reductions in kidney disease and blindness among people with diabetes.

• Diabetes Eye Exam: In 2012, 65.1% of Utah adults with diabetes reported receiving a dilated eye exam within the previous year and 78.3% reported an annual foot exam. This was less than the median of 72.3% reported for all 33 states that asked this question, but higher than the HP2020 target of 58.7%. At risk population:
  o Individuals with a high school education versus those with post-secondary education

• Diabetes Foot Exam: In 2012, 78.3% of Utah adults with diabetes reported an annual foot exam. This was slightly higher than the median of 77.8% for all 33 states that asked this question and above the HP2020 target of 74.8%. At risk population:
  o Individuals with a high school education versus those with post-secondary education

• Doctor-diagnosed High Cholesterol: The crude percentage of Utah adults who were ever told they had high cholesterol was 23.5% in 2009. Both the U.S. and Utah have seen an increase in the age-adjusted percentage since 1991 when it was 19.6% in the U.S. and 16.4% in Utah. At risk populations include:
  o Older individuals
  o Asians
  o Whites

• Doctor-diagnosed Hypertension: The crude percentage of Utah adults who reported ever being told
they had high blood pressure was 23.1% in 2009. The age-adjusted percentage was lower in Utah at 25.4% compared to 28.1% nationally. Utah’s age-adjusted percentage has remained relatively constant over the past decade. At risk population:

- **Older individuals**

**High Blood Pressure Medication:** The percent of Utah adults with hypertension who are taking medicine for their high blood pressure was 69.3% in 2011, which was lower than the US rate of 77.7% and just slightly below the HP2020 target of 69.5%. At risk population:

- Hispanics/Latinos

**Colorectal Cancer Screening:** In 2010, the crude percentage of Utah adults aged 50 or older who had ever had a sigmoidoscopy or colonoscopy in the past 10 years or a fecal occult blood test (FOBT) in the past year was 68%. This was below the HP2020 target of 70.5%. At risk populations include:

- Individuals with lower levels of formal education
- Hispanics/Latinos

**Mammography:** In 2010, Utah had one of the lowest age-adjusted mammogram screening rates in the nation, with only 66.4% of women aged 40 or older who reported having had a mammogram in the last two years, compared to 74.9% in the U.S. Utah has not met the HP2020 target of 81.1%. At risk populations include:

- Individuals with less than a high school education
- Individuals with lower levels of income
- American Indians/AK Natives

**Environmental Determinants:** There is a strong link between human health and the environment, from the food we eat to the air we breathe. Environmental factors often have a major impact as they affect large numbers of people.

- **E. coli Infections:** UDOH tracks one category of E. coli, known as Shiga toxin-producing E. coli or STEC. E. coli O157:H7 infections became reportable in Utah in 1990, during which time six cases were reported. The increase in number of cases reported annually since 1990 may be due to improved reporting and better laboratory detection methods. In 2010, incidence in Utah was double the Healthy People 2010 goal at 2.0 cases per 100,000 person-years.

- **Salmonella infections:** The number of reported Salmonella infections in Utah decreased from 26.4 cases per 100,000 person-years in 1999 to 12.3 per 100,000 person-years in 2010. The Healthy People 2020 target is 11.4 cases per 100,000 person-years, so there is still work to be done for Utah to reach this target goal.

- **Safe Restaurant Food:** The Food and Drug Administration recommends a minimum staffing ratio of 1 restaurant inspector (full-time equivalent, or FTE) for every 150 food establishments. If the ratio is based on permanent establishments, only four local health departments met this standard in FY 2011. However, if temporary establishments are included, only one local health department met this standard in FY 2011.

- **Water Quality - Arsenic:** In 2009, there were 295 people served by community water systems that exceeded the new 2006 standard of 10 micrograms/liter of arsenic. Another 158,927 people were served by community water systems that did not report arsenic levels.

- **Water Quality - Nitrates:** In 2009, no people in Utah were served by community water systems that exceeded the new 2006 standard of 10 micrograms/liter of nitrates. However, 193,628 people were served by systems that did not report nitrate levels.

- **Waterborne Disease Outbreaks:** In response to the 2007 statewide Cryptosporidium outbreak, local and state public health implemented restrictions on swimming for persons in diapers, persons who had been ill and persons who were still ill. It appears these restrictions helped stop the outbreak.

**C. Health Information Initiatives-Meaningful Use**

The Utah Department of Health Division of Medicaid & Health Care Financing (UDOH) uses a variety of informatics sources and systems to conduct operations, oversee programs, and evaluate the effectiveness of care and services provided to the state’s Medicaid and CHIP enrollees. Below are just a few examples of current activities regarding Medicaid’s Health Information Technology (HIT) & Health Information Exchange (HIE) efforts.

- **UDOH is participating in the Medicaid Electronic Health Record (EHR) Incentive Payment Program supported through CMS (Centers for Medicare and Medicaid Services) and the Office of the National Coordinator for Health Information Technology (ONC), as part of the ARRA (American Recovery and Reinvestment Act of 2009). The goal of the program is to improve quality of patient care, patient safety, and patient involvement in treatment options by using certified EHR technology.**

- **The State received approval from CMS in October 2012 to make EHR incentive payments to eligible Medicaid providers as they adopt, implement, upgrade, or demonstrate meaningful use of certified EHR technology. Meaningful use includes electronically capturing health information in a coded format, using that information to track clinical conditions, as well as communicating that information for care coordination.**

**Utah’s Health Information Exchange (cHIE)**

- **HIT initiatives in Utah are mature and widespread. Our major health systems, such as Intermountain HealthCare, have invested years building their HIT systems. These efforts are supported by experts from the University of Utah, Department of Biomedical Informatics, one of the oldest Biomedical Informatics programs in the nation. Multiple efforts undertaken to assist outpatient practices in adoption and effective use of EHR systems have produced EHR adoption rates much higher than the national average.**

- **The Clinical Health Information Exchange or cHIE, pronounced chee, is Utah’s electronic health information exchange. UDOH, as the state administrative agency, is responsible for the State HE program and holds contractual oversight and accountability over the state designated HIE, the Utah Health Information Network (UHIN), for operating the clinical health information exchange under the State HIE Program. For the past five years UHIN has engaged the community and partners such as the Utah Medical Association (UMA), Utah Hospital and Health Systems Association (UHA), UDOH, and HealthInsight, in planning for and building clinical exchange capacity. The cHIE went live on September 1, 2009 as a pilot with eight providers in two rural communities. In January 2010, the cHIE went into full operation in Utah and is open to any health care entity interested in participating as a cHIE member. In September of 2012, as the result of House Bill 46, Medicaid and CHIP beneficiaries are automatically enrolled in the cHIE. These families are notified about how to opt-out if they do not wish to participate during their application/renewal process for benefits. Beginning in 2014, Medicaid intends to use Direct, which is an ONC (Office of the National Coordinator) and CMS-endorsed HIE...**
protocol, for pre-authorizations and for Stage 2 Meaningful Use public health measure reporting. We believe that a fully-implemented eHIE in Utah will make significant inroads in our goals to reduce the cost of care while improving the quality. The eHIE could also provide the infrastructure for quality reporting to measure improvement and support VBPs. Another effort, Advancing Rural Connections for Healthcare and E-health Services (ARCHES) attempts to improve the statewide infrastructure for the transfer of clinical information between these rural facilities.

Utah Children’s Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Grant

• In 2010, Utah and Idaho Medicaid were awarded a 5-year CHIPRA Quality Demonstration grant that has allowed both states to collaboratively develop a regional quality system, guided by the medical home model, to enable and assure ongoing improvement in the healthcare of children enrolled in Medicaid/CHIP programs.

• The Children’s Health Care Improvement Collaborative (CHIC) project has focused its attention on improving care and outcomes for children and youth with special health care needs. Meaningful use and robust integration of electronic health records, health information exchanges (HIE), and other health information technology (HIT) and informatics tools have been integrated into existing and new quality improvement and care coordination programs, leveraging regional and national expertise in chronic care, quality improvement, HIT, and informatics.

Utah’s IBIS-PH

• An important part of the health information technology infrastructure in Utah is the Health Department’s Indicator-Based Information System for Public Health (IBIS-PH). IBIS-PH is Utah’s web-based public health data dissemination site. It has evolved over almost 20 years and exists in its current form since 2000. IBIS-PH serves as an integrator of public health data from across the UDOH. The heart of IBIS-PH is the 180+ indicator reports. Subject-matter-experts from multiple programs in the UDOH create and continually update these online reports of important public health measures. A number of the indicators are required or highly recommended measures for this initiative. The UDOH and public health partners, such as local health departments and community-based organizations, regularly examine these measures to track and evaluate progress toward goals; guide policy decisions, priorities and long-range strategic plans; develop, focus and streamline data collection and reporting capacity; and provide comprehensive information about Utah’s health and health care system.

• In reviewing the ‘Suggested Population Level Measures for the CMS State Innovation Model Initiative’ we found that of the 24 measures, nine have indicator reports on IBIS-PH that are exactly the same and eight have indicator reports that are similar. In addition, 15 of the population measures can be queried in the IBIS-PH Query System.

• Looking at the ‘Core Measures Version 10’, we noted that an indicator entitled ‘Managed Care (CAHPS) Survey’ includes a number of graphs about measures of customer experience for both Medicare and commercial HMOs in Utah. In addition, the following core measures are included in Indicator Reports on IBIS-PH: NQF#0274- Diabetes Long-term Complications, NQF#0279 -Bacterial Pneumonia and NCF#0283- Adult Asthma. The ‘Hospital ED Visit Rate that did not Result in Hospital Admission, by Condition’ can be queried in the Emergency Department Encounter Query Module on the IBIS-PH Query System ‘Dataset Queries’ tab.

• Many of the indicators in IBIS-PH are reported by population sub-groups important to this initiative such as sub-state geographic areas (counties, local health districts, census tracts and urban neighborhoods), and by education level, income, health insurance status and race/ethnicity. Thus, IBIS-PH and the UDOH have already tackled the difficulty of making data readily available at the local level, including communities in Utah’s urban areas.

• In addition, IBIS-PH includes indicator reports of important demographic measures of the Utah population (or social determinants) that are known to influence health (e.g. poverty). IBIS-PH also provides information on environmental factors such as air and water quality.

• IBIS-PH provides a way to not only monitor goals, but also a means to report progress on the goals to the public in an understandable and impactful manner. IBIS-PH is moving towards allowing information to be grouped by topics that can communicate measurement results across datasets for a topic such as diabetes.

D. Health Care Cost Performance Trends in Utah Insurance Premiums

Over the last ten years, there have been four significant trends in the comprehensive health insurance market that the Utah Insurance Department continues to monitor:

1. The number of comprehensive health insurers declined between 2001 and 2010, from 103 to 62.

2. Like the rest of the United States, Utah’s comprehensive health insurance market is experiencing significant increases in the costs of health insurance. From 2001 to 2010, the average premium per member per month for comprehensive health insurance increased on average about 7.2 percent per year. One of the major causes is a steady increase in the cost of health care, particularly due to increases in pharmacy and hospital costs.

3. From 2001 to 2010, the number of Utah the residents insured by comprehensive health insurance as a relative percentage of Utah’s total population has declined by about 7.4 percent. The data are consistent with a shift by large employers from the commercial health insurance market to self-funded health benefit plans. However, recent increases in the uninsured and the number of residents covered by government sponsored health benefit plans may also be contributing factors.

4. The top insurers in the comprehensive health insurance industry have experienced an average financial gain of 1.56% in net income per year after expenses over the last sixteen years. Overall, Utah’s core commercial health insurers are financially solvent and have adequate reserves to cover health insurance claims.

Health Care Costs

Total healthcare expenditures have increased steadily since 1991 in Utah. The increase is due to both the growing Utah population and growth in per capita healthcare costs. And though Utah’s per capita costs have increased, they remain below the U.S. per capita cost. In fact, according to a recent Wall Street Journal report using 2009 data from the Centers for Medicare and Medicaid Services, Utah had the lowest per capita spending on healthcare of all states. This is at least partly attributable to the state’s relatively young and healthy population.
Figure 2. Total Healthcare Expenditures (in millions), Utah, 1991-2009

Figure 3. Health Care Expenditures per Capita, U.S. and Utah, 1991-2009

Medicare
In 2012, there were a total of 299,427 Medicare beneficiaries in Utah representing 11% of Utah’s total population compared to 16% of the total U.S. population. There has been a steady increase from 205,395 Utah Medicare enrollees in 1999.

Figure 4. Medicare Spending Per Enrollee, U.S. and Utah, 1991-2009

Medicaid
- Medicaid medical assistance expenditures comprise just over 80% of the annual budget of the UDOH (including both federal and state sources). As Utah’s population has grown, so has the number of Utahns receiving assistance from Medicaid. The increase in Medicaid enrollees combined with increases in the costs of providing health care cause the Medicaid medical assistance expenditures to rise over time.

- Medicaid and CHIP Penetration: In 2011, approximately 8.1% of Utah children aged 0–18 years had no health insurance coverage. This represents an increase from 7.0% in 2010, but this increase may be partly due to the change in BRFSS methodology. The 2011 Behavioral Risk Factor Surveillance System (BRFSS) estimated that approximately 70% of uninsured children in Utah were income eligible for health care services through the Children’s Health Insurance Program (CHIP) or Medicaid programs.

Sources
In Utah from 2007-2012, the average monthly costs per Medicaid enrollee have decreased slightly for managed care costs, physician services and pharmacy costs, and stayed about the same for hospital care, long-term care and ‘other’ costs. The per recipient managed care costs were computed using an average monthly managed care cost and count of managed care Medicaid recipients. Long-term care is the most expensive type of care to provide. Utah’s population is aging, which has implications for both state and federal Medicaid funding.


E. Quality Performance
Utah Health Scape
UtahHealthScape.org is a health care quality tool created and supported by HealthInsight, a Utah non-profit organization. HealthInsight is dedicated to improving the healthcare system in Utah. One of the objectives of the information that has been compiled on Utah Health Scape is to encourage hospitals and other health care providers to improve quality and help everyone learn more about health care quality. The website currently provides quality ratings for hospitals, health insurance plans, nursing homes and home health. They plan to provide these ratings by provider and clinics in the future.

The standard summary measures of care quality and access for hospitals are:
1. Patient experience (10 measures)
2. Heart attack (2 measures)
3. Heart failure (3 measures)
4. Pneumonia (5 measures)
5. Readmissions (3 measures)
6. Surgical care (8 measures)

The summary measures for commercial HMOs include:
1. Care experience
2. Plan experience
3. Care access
4. Child well care
5. Diabetes
6. Maternity
7. Preventive care

Summary measures for nursing homes:
1. Care quality (long stay) (11 measures)
2. Care quality (short stay) (5 measures)
3. Health and fire safety (2 measures)
4. Staff time (3 measures)

Summary measures for home health:
1. Patient experience (5 measures)
2. Managing daily activities
3. Preventing unplanned hospital care
4. Managing pain and symptoms
5. Preventing harm
6. Treating and preventing wounds

The measures were selected with joint input from key stakeholders, such as consumers, health insurance companies and health care providers. Factors considered in selection include national endorsement, clinical value and measure reliability. Sources of measures include:
1. National Hospital Inpatient Quality Measures
2. Hospital Consumer Assessment of Healthcare Providers and Systems
3. Medicare Advantage Quality and Performance Measures
4. Healthcare Effectiveness and Data Information Set (HEDIS)
5. Consumer Assessment of Healthcare Providers and Systems (CAHPS)
6. Agency for Healthcare Research and Quality
According to information on Utah Health Scape, the Commonwealth Fund’s ‘State Scorecard on Health System Performance 2009’ ranked Utah 19th overall in health care quality compared with other states. Utah scored highest on: avoidable hospital use and cost (ranked #1) and healthy lives (ranked #4 overall). Utah scored poorly on: access to care (ranked #31) and prevention and treatment (#35) and equity (#45).

According to the Agency for Healthcare Research and Quality (AHRQ), and also reported on Utah Health Scape, Utah scores slightly above average in overall health care quality. Utah performs strongly on: home health care; diabetes care; and respiratory disease care. Areas where Utah could improve significantly are: preventive care, nursing home care and maternal child health care.

Utah Patient Safety Initiative
In 2001, the UDOH partnered with the Utah Hospital Association, Utah Medical Association and HealthInsight to initiate a patient safety program. The primary goal of the Utah Patient Safety Program is to create a safe, secure, and robust surveillance system which captures the incidence of sentinel patient injury events occurring in hospitals and ambulatory care centers. The state of Utah maintains an active WEB site documenting its Patient Safety Initiative.

The LINC (Linking Information Necessary for Care) transfer form was developed to improve that transfer of information across sectors of care in order to improve patient safety.

Utah Medicaid Affordable Care Organizations
UDOH’s Division of Medicaid and Health Financing (DMHF), Bureau of Managed Health Care, is in the process of reviewing performance measures and quality outcomes for managed care services offered by the state’s contracted accountable care organizations (ACOs). At this time, DMHF is inviting stakeholders and the community to provide feedback on this important topic. To support this effort, DMHF has developed a website that makes a menu of measures available for public comment; documents the selection process by providing a calendar, agendas, minutes, pertinent legislation, and other relevant information as it becomes available; and reports on the final measures that are selected. DMHF developed a timeline with the goal of publishing round 1 of the quality measure in September of 2014. Please refer to their website for further information: https://sites.google.com/a/utah.gov/cqm/

Utah Department of Health Healthcare Data
The Utah Health Data Committee (HDC) was created in 1990 by the Health Data Authority Act. Along with its staff in the UDOH Office of Health Care Statistics (OHCS), the HDA has provided critical leadership in managing a wide variety of complex data systems in Utah since 1992. Since 1994, the mission of the Utah HDC has been “to support health improvement initiatives through the collection, analysis, and public release of health care information.” This is done through three core programs: 1) health discharge databases, 2) health plan measurement and 3) APCD. Part of that mission includes reporting on health maintenance organizations (HMOs) and managed care organizations (MCOs).

The HDC continues to monitor the performance of commercial HMOs, CHIP HMOs, and Medicaid health plans in Utah using the HEDIS national standardized set of performance measures. The 2012 Utah Health Plan Quality of Care Report provides the most recent information. About 33% of Utahns who currently have health insurance are covered by one of the health plans in the report. Commercial Preferred Provider Organization (PPO) data will be reported for the first time in 2013. KEY FINDINGS FROM THE REPORT:

To determine how HMOs in Utah are performing compared to other HMOs in the nation, State averages are compared with National averages.

• Commercial HMOs performed the least well, scoring above the national averages on only 30% (13 out of 43) of the measures reported. Commercial HMOs are well under national average on childhood immunizations, cancer screenings (breast, and cervical) and Chlamydia screenings, and well-child visits.

• CHIP did reasonably well compared to the national averages, exceeding the national averages on 30% (6 out of 20) of the measures reported. CHIP has room for improvement in childhood immunizations and adolescent well-care visits.

• Medicaid HMOs did very well when compared to the national averages, exceeding the national averages on 33% (16 out of 49) of the measures reported. Medicaid HMOs have room for improvement in adolescent well-care visits, Chlamydia screenings and some diabetes care measures.

The 2012 Consumer Satisfaction Report of Utah Health Plans describes how satisfied each health plan’s own members are with the care they are receiving. The data come from an annual survey entitled the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey.

• A total of 15 plans participated in the 2011 CAHPS project: 3 Medicaid HMOs, 1 CHIP, 3 commercial HMOs and 8 commercial PPOs.

• Utah’s CHIP program has consistently performed above national benchmarks, 2011 marks the third year in a row that CHIP has scored above the national average on every rating and composite.

• Utah Medicaid plans are also performing well but are behind national benchmarks on ratings of the health plan and customer service.

• Utah HMOs scored consistently under all national benchmarks, which is cause for concern. PPOs scored somewhat better than national benchmarks, but still received low marks on characteristics such as the rating of health plan, health care, and customer service.

• The next adult survey will be in 2013 and many plans have performance improvement programs in place to address these scores.

MONAHRQ, standing for “My Own Network, Powered by AHQR”, is a comprehensive web development tool provided by the federal Agency for Healthcare Research and Quality (AHRQ), utilized by the Office of Healthcare Statistics (OHCS) in producing a more effective and efficient hospital comparison report. The information available in the MONAHRQ system is based on admission rates and pre-calculated AHRQ Quality Indicator (QI) measures derived from local hospital discharge data.
Utah’s APCD has been collecting data since September 2009 and participating health plans have been submitting enrollment, pharmacy, and medical file data going back to 2007. In June 2012 the database also started receiving fee-for-service claims from Medicaid. In 2011 and 2012, the APCD received more than 46 million medical and pharmacy claims.

F. Special Populations
High Risk Communities
Refugees
The Federal Refugee Act of 1980 created a uniform system of services for refugees resettled in the United States. Utah has resettled over 12,000 refugees since 1995.

![Figure 6. Number of Refugee Arrivals, Utah, 1998-2010](image)

The primary goal of the UDOH Refugee Health Program is to offer health screening related services to all newly arriving refugees in Utah. This is accomplished by working closely with the refugee resettlement agencies and with the Salt Lake Family Health Center, where all refugee screenings have been conducted since October 2001. Each newly arriving refugee is entitled to a comprehensive health exam within the first 30 days after arriving in the United States.

Of the 1,035 refugee arrivals to Utah in 2010, 1,018 received health screening (the other 17 out-migrated to other states prior to health screening). The tuberculosis (TB) screen test was positive for 252 of the refugees. And 100% of those with a positive TB screen received a chest X-ray.

Health Screening compliance and TB Screen Follow-up:

In addition to providing both a comprehensive health and dental exam, the program continues to focus special attention on improving the availability of well-trained and culturally appropriate medical interpreters. Each year, medical interpreter training is offered, free of charge, to qualified interpreters throughout the state.

Other services provided through the program include: cultural competency training, refugee-related brochures translated into commonly seen languages, and case management of refugees diagnosed with communicable diseases.

![Figure 7. Number of Reportable Conditions in Refugee Arrivals, Utah, 2010](image)

Data Notes:
- NOT positive for active TB disease. Only children <7 years old tested for Blood Lead, positive >1 mg/dL.

Data Sources:
- Bureau of Communicable Disease Control, Utah Department of Health.

Children with Special Health Care Needs
The Utah Children with Special Health Care Needs (CSHCN) Bureau within the UDOH is the state Maternal Child Health (Title V, MCH) agency for Utah. CSHCN provides and promotes family-centered, coordinated care and facilitates the development of community-based systems for these children and their families. The bureau provides some direct services in addition to health care coordination, newborn screening (genetic and endocrine, and hearing) and a number of other programs to address priority needs, including:

- Birth defects
- Medical home
- Hearing aids
- Family involvement and leadership

In addition to providing both a comprehensive health and dental exam, the program continues to focus special
• Autism system development
• Technology dependent Medicaid waiver
• Health and well-being of children in foster care

The Bureau of Child Development includes the following:
• Baby Watch Early Intervention program – provides early identification and developmental services for families of infants and toddlers, ages birth to three
• Child Care Licensing – protects the health and safety of children in regulated childcare settings
• Developmental Screening – assists early care and education providers to connect children and families to community resources for child development
• Office of Home Visiting - promotes a coordinated service continuum of research-informed home visiting that supports healthy child development and ensures the safety of young children and family members in at-risk communities.

At-Risk Children: The Utah Early Childhood Statewide Data Integration Project (ECDIP)
In September 2011, Utah Governor Gary Herbert designated the existing Early Childhood Comprehensive Systems State Team to also function as the State Advisory Council on Early Care and Education (as required by the Head Start Act). The Early Childhood Comprehensive System (ECCS) Grant is a program of the US Department of Health & Human Services, Maternal and Child Health Bureau. The goal is to support Utah parents in their efforts to ensure that their children enter school healthy and ready to learn. The Early Childhood Utah Program supports communities as they build and integrate early childhood cross-service systems in the following areas:
• Access to health care and a medical homes
• Early care and education
• Parenting education and family support
• Social-emotional development and mental health

The mission of the ECDIP is to facilitate data sharing and coordination among early childhood programs in Utah. Several early childhood programs and agencies are already participating in the data integration effort:
• Utah Department of Health
• Utah Department of Workforce Services
• Utah State Office of Education
• Utah Department of Human Services
• Local Head Start Programs
• The Utah Data Alliance
• The United Way
• Help Me Grow

Utah Residents with Substance Abuse and/or Mental Health Disorders
The Utah Division of Substance Abuse and Mental Health (DSAMH) is charged with ensuring a comprehensive continuum of mental health and substance abuse disorder services are available throughout the state.

According to a recent DSAMH report, an estimated 88,251 Utah adults were in need of treatment for alcohol and/or drug dependence in 2012. In 2011, an estimated 12,189 youth needed this type of treatment. The public substance abuse treatment system is serving 17,026; only 17% of the current need. For substance abuse treatment services, the primary funding source is the Federal Substance Abuse Prevention Treatment (SPT) block grant.

In 2012, 12.7% of adults and 7.9% of youth in Utah were classified as needing treatment for mental health issues. The public mental health treatment system served 44,611 individuals or less than 14% of current need. In other words, approximately 274,957 adults and children are in need of, but not receiving, mental health treatment services. In addition, according to National Vital Statistics System data, Utah has one of the highest suicide death rates in the country. For mental health services, the primary funding source is Medicaid.

DSAMH contracts with local county governments that are statutorily designated as local substance abuse authorities (LSAAs) and local mental health authorities (LMHAs) to provide these services.

In addition, DSAMH has undertaken a number of state-wide initiatives to prevent these disorders and to better integrate physical and behavioral health:
• Recovery Plus Project: In 2009, using funding from a Communities Putting Prevention to Work (CPPW) grant, DSAMH partnered with the UDOH, Utah Tobacco Prevention and Control Program, to integrate comprehensive tobacco policies in mental health and substance abuse treatment. Residents of Utah who suffer from mental illness or substance use disorders have much higher tobacco use than the general population. The project established the foundation for all publicly-funded treatment facilities to become tobacco-free by March 2013.
• Prevention by Design Project: DSAMH staff worked with the National Alliance on Mental Illness and the State Epidemiological Outcomes Workgroup to address suicide deaths through mental illness prevention and mental health promotion across the lifespan.

Factors in Utah impacting the integration of physical and behavioral health include the passage of H.B. 57 during the 2013 Utah General Session. Highlighted provisions from this legislation include: requiring the DSAMH to promote integrated programs that address an individual’s substance abuse, mental health, and physical healthcare needs; requiring local substance abuse and mental health authorities to cooperate with the DSAMH in promoting the integrated programs that address an individual’s substance abuse, mental health, and physical healthcare needs; requiring the DSAMH to evaluate the effectiveness of integrated health programs; requiring the DSAMH to review and approve each local substance abuse and mental health authority’s plan to ensure that services result in improved overall health and functioning.

In relation to HB-57 – Behavioral Health Integration, the UDOHMHF has partnered with the DSAMH and is actively working with other partners to integrate behavioral health services. To this end, they have held a number of meetings to discuss existing efforts to integrate care, vision and goals, potential barriers, and models from other states. They’ve looked at quality measures including definitions from the Substance Abuse and Mental Health Services Administration (SAMSHA), the Agency for Healthcare Research and Quality (AHRQ), the
The Aging Population in Utah

Despite its youthfulness, Utah’s population is growing older and living longer. Utah’s senior population age 65 and older is predicted to grow from current levels of 259,184 to 460,553 by year 2030. According to the 2010 census, Utah had the seventh most rapidly increasing population in the nation of those aged 65 and older.

The Utah State Division of Aging and Adult Services (DAAS) contracts with 12 planning and service areas (Area Agency on Aging) in order to deliver a variety of aging programs throughout Utah. Two focus areas for Utah DAAS related to senior health are 1) improving in-home and community-based services and 2) improving preventive health services.

Programs to promote health and prevent disease are important to reduce medical costs and to prevent premature institutionalization. Currently DAAS, in partnership with the UDOH-MHF and the Aging Disability Resource Center are working on two grant-funded projects.

Project 1: Communities Putting Prevention to Work – Chronic Disease Self-Management: This project utilized the Stanford University Chronic Disease Self-Management Program (CDSMP). Key objectives were:

- Deliver CDSMP to Utah residents
- Document the impact of the CDSMP
- Develop and test an approach for using Medicare claims data to track the impact of CDSMP
- Increase the capacity of states and communities to deploy CDSMP

Project 2: Empowering Older Adults and Adults with Disabilities through Chronic Disease Self-Management Education Programs (CDSME): The overall purpose of this funding opportunity was to ensure that evidence-based self-management education programs are embedded into the nation’s health and long-term services and supports systems. Two major goals:

1. Increase the number of older and/or disabled adults with chronic conditions who complete evidence-based CDSME programs to maintain or improve their health status.
2. Strengthen and expand integrated, sustainable service systems within States to provide evidence-based CDSME programs.

Community Senior Centers throughout the state offer services and activities both within and outside. They can link people with resources and in recent years have had to deal with an increasingly diverse senior population, and must also rely on community partnerships to assist in providing necessary services and activities.

The Milliman report reveals, and

National Quality Forum (NQF) and the Institute of Medicine (IOM).

DMHF has agreed to:

1. Hold high-level meetings among plan administrators,
2. Work on reestablishing in-service meetings (discuss why it is important to coordinate),
3. Suggest high-level measures,
4. See what the Milliman report reveals, and

Established in 2000, the National Family Caregiver Support Program has enabled Utah to expand service to those providing care to an aging family member, friend or neighbor. With the most recent Older Americans Act reauthorization, there is a commitment to provide outreach and services to a broader audience of family caregivers, including providing caregiver services to those responsible for the care of an individual of any age who has been diagnosed with Alzheimer’s disease.

Currently, the DAAS, in partnership with the Alzheimer’s Association, Utah Chapter (AAUC), has received Alzheimer’s Disease Supportive Services Program (ADSSP) grants from the Administration on Aging (AoA). Grant funds enable the state of Utah, through the AAUC and other partners, to provide education, training, advocacy, and services to Alzheimer’s patients and their caregivers.

- Alzheimer’s Disease Evidence-Based Grant: Employ counseling and supportive intervention in a coordinated community-based program to improve caregiver well-being among minority culturally diverse and rural-based populations.
- Alzheimer’s Disease Innovations Grant: Creating Caring Champions, to provide caregivers with access to non-pharmacologic treatment and support services and to study the effects of such interventions.

In addition, TheUDOH Survey Center teamed up with the AAUC to include questions about perceived cognitive impairment on the Utah Behavioral Risk Factor Surveillance System questionnaire. This effort will help policy makers and health providers in Utah better understand the public health burden of cognitive impairment and to plan accordingly.

Utah Coalition for Caregiver Support (UCCS) was founded in March 2002. It has created a state-wide partnership of ~30 organizations to support caregivers.

- Lifespan Respite Care Program Grant: Enabled UCCS to actively expand its focus to all caregivers (not just of the elderly).

The Alzheimer’s State Task Force was formed in 2011 by DAAS. Its overarching goals are:

- Create a dementia-aware Utah
- Ensure health and dignity for all Utah residents with dementia and those at risk
- Support and empower family caregivers
- Develop a dementia-competent workforce
- Expand dementia research in Utah

In 2005, the Utah legislature created the Commission on Aging within the Governor’s office and began to address how state government and the private sector can prepare for the wave of aging individuals. The Commission is obligated to look strategically at the future needs of aging persons, to recommend solutions, when needed, and to implement solutions, when possible.

- Amongst other areas, the Commission is currently working on healthy aging, mental health, community-based care and services, and caregiver support.
- The Commission has taken on electronic Physician Orders for Life-Sustaining Treatment (ePOLST) administration. To identify a long-term home for the electronic medical registry and information system containing physician orders for life-sustaining Treatment, the Commission is bringing together stake holders from public health, emergency services, UDOH and others. Utah is developing the program to improve communications between patients with advanced illness, their families, and health care providers. UDOH Health Information Technology staff created Utah’s pilot ePOLST online system, with
Utah Residents with Disabilities

The Utah Division of Services for People with Disabilities (DSPD) serves children and adults who have intellectual disabilities, physical disabilities, brain injuries, and autism. In 2012, DSPD reorganized into a single statewide organization with six functional areas, plus the operation of the two-year autism pilot program.

In 2012:
1. DSPD met the basic health, safety and service needs for 4,985 Utahns with severe disabilities through three Medicaid Waiver programs, one non-Medicaid program and through the Utah State Developmental Center. Of these individuals, 4,675 were funded by Medicaid.
   • 4,436 Utahns with intellectual disabilities or related conditions, received services in the Community Supports Medicaid Waiver
   • 131 Utahns in the Physical Disabilities Medicaid Waiver
   • 108 Utahns in the Acquired Brain Injuries Medicaid Waiver
   • 103 Utahns with disabilities in the non-Medicaid program (including 70 Utahns with intellectual disabilities or related conditions, 25 Utahns with physical disabilities, and 8 Utahns with acquired brain injuries)
   • 207 Utahns received 24 hour support at the Utah State Developmental Center
2. Provided 3,019 Utahns with supervision and training during the day or on the job, 1,753 with 24-hour supervision and training in group homes, supervised apartments or home-like settings, 2,980 with intermittent family support, supported living, or with a personal assistant and 43 with case management only services
3. Brought 162 people into services from the waiting list using FY2012 appropriations
4. Managed waiting list records for 1,940 Utahns with a critical need for services
5. Contracted with over 150 providers who employ approximately 10,000 Utahns
6. Invested state general fund in programs that received a return of two to three dollars for every dollar in state general funds

Demographics:
Disabilities:
• 78.7% received services due to an intellectual disability
• 15.6% received services due to a condition related to an intellectual disability
• 3.2% received services due to a physical disability
• 2.5% received services due to an acquired brain injury

Ages/Genders:
• Average age is 34; ages ranging from 3 to 90 years
• 85% adults, 15% children
• 40% female, 60% male

A total of 1,940 Utah residents were waiting in SFY 2012 for DSPD services, including 81 people with acquired brain injury, 1,820 people with intellectual disabilities (or related conditions) and 39 people with physical disabilities.
USDB collaborates with the Coordinating Council for People with Disabilities and the UDOH Baby Watch Early Intervention Program.

Utah American Indians/Alaska Natives
There are seven federally-recognized tribal governments in Utah spread throughout some of the most remote regions of the state as shown in Figure 9. They are often isolated from urban and rural health facilities. In 2012, more than 42,000 Utahns described themselves as of only American Indian race and almost 62,000 described themselves as American Indian alone or in combination with another race.

- At UDOH, the American Indian/Alaska Native initiative is located in the Division of Family Health and Preparedness, Director’s Office and staffed by the UDOH Indian Health Liaison. The mission of the initiative is to raise the health status of Utah’s American Indian/Alaska Native population. The Utah Indian Health Advisory Board was established by UDOH and Utah’s tribal governments in order to advise and make recommendations to UDOH. In 2007, UDOH and tribal leaders established a Federally Recognized Tribe of Utah Consultation Policy in order to better achieve mutual goals through improved consultation process between their sovereign governments.

Utah American Indians share many health issues with all Utahns, but also have health problems and strengths unique to their communities. Tribal lands are located in rural and frontier areas of Utah, but urban Salt Lake County has the highest number of American Indians.

- Inadequate health care is a problem for Utah American Indians. Higher percentages are uninsured and lack prenatal care.
- Overall health status is poorer among Utah American Indians including both mental and physical health. American Indians report less physical activity.
- Utah American Indians die from complications of diabetes at higher rates.
- Commercial tobacco use is high among Utah Native Americans.

G. State and Federal Partnership Initiatives
UDOH and its sister agencies in the state receive federal funding for a number of initiatives related to population health. A number of these federal grant funded programs related to this initiative are summarized in the table below.
<table>
<thead>
<tr>
<th>Grant Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>Health Information Exchange (HIE) Cooperative</td>
<td>The State HIE Cooperative Agreement Program funds state efforts to rapidly build capacity for exchanging health information across the health care system both within and across states.</td>
</tr>
<tr>
<td>Beacon Communities Grant</td>
<td>The project is directed by HealthInsight with partners including UDOH, Intermountain Healthcare, University of Utah Community Clinics and the Utah Health Information Network, amongst others. Beacon seeks to improve community outcome measures for Diabetes Mellitus through the use of technology. Beacon also aims to improve public health reporting of communicable diseases and align care delivery with advanced directives for patients and families dealing with end of life issues.</td>
</tr>
<tr>
<td>CHIPRA Quality Demonstration Grant</td>
<td>This grant allows Utah and Idaho to collaboratively develop a regional quality system, guided by the Medical Home model, to enable and assure ongoing improvement in the healthcare of children enrolled in Medicaid/CHIP programs.</td>
</tr>
<tr>
<td>Public Health Informatics Grant</td>
<td>The UDOH Public Health Informatics Program partners with the Rocky Mountain Center of Excellence at the University of Utah to promote, foster and coordinate innovative collaborative solutions for the optimal use of information and technology, to improve the health of all Utahns.</td>
</tr>
<tr>
<td>EPICC – Healthy Living through Environment, Policy and Improved Clinical Care</td>
<td>The Healthy Living through Environment, Policy and Improved Clinical Care (EPICC) program is funded by the CDC to address heart disease, diabetes, and the related risk factor of obesity through environmental approaches that promote health and support healthy behaviors, health system interventions to improve the effective delivery and is of clinical and other preventive services, and strategies to improve community-clinical linkages.</td>
</tr>
<tr>
<td>Alzheimer’s Disease Supportive Services Program (ADSSP) grants from the Administration on Aging (AoA)</td>
<td>This grant supports state effort to expand the availability of community-level supportive services for person with Alzheimer’s Disease and Related Disorders (ADRD) and their caregivers.</td>
</tr>
<tr>
<td>Youth Risk Behavior Survey (YRBS)</td>
<td>UDOH receives funding in order to conduct this paper/pencil survey of students in grades 9-12 in selected Utah public high schools.</td>
</tr>
<tr>
<td>State Partnership Program to Improve Minority Health</td>
<td>The grant helps fund the UDOH Office of Health Disparities. Its mission is to reduce health disparities in Utah and improve health outcomes for vulnerable population as defined by socio-economic status, race/ethnicity, geography, and among other populations identified to be at-risk for health disparities.</td>
</tr>
<tr>
<td>Pregnancy Risk Assessment Monitoring System (PRAMS)</td>
<td>PRAMS (Pregnancy Risk Assessment Monitoring System) is a joint project between UDOH and the Centers for Disease Control and Prevention (CDC). The purpose is to find out why some babies are born healthy and others are not. To do this, a questionnaire asks new mothers questions about their pregnancy and new baby.</td>
</tr>
<tr>
<td>Utah State Office of Rural Health and the State Primary Care Offices grants</td>
<td>These grants provide funding to the UDOH Office of Primary Care and Rural Health. The office coordinates federal, state and local efforts aimed at improving the health of Utah’s rural, medically underserved, and multicultural residents.</td>
</tr>
</tbody>
</table>

Table 4. Federal and State Initiatives and Description of Existing Demonstration and Waivers Granted to Utah by CMS

<table>
<thead>
<tr>
<th>Grant Name</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1115</td>
<td>Primary Care Network</td>
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<tr>
<td>1915b</td>
<td>Choice of Health Care Delivery Program &amp; Hemophilia Disease Management Program</td>
</tr>
<tr>
<td>1915b</td>
<td>Prepaid Mental Health Plan</td>
</tr>
<tr>
<td>1915b</td>
<td>Non-emergency Medical Transp.</td>
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<tr>
<td>1915c</td>
<td>Technology Dependent, Medically Fragile</td>
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<tr>
<td>1915c</td>
<td>“Communtity Supports Waiver (#0158)”</td>
</tr>
<tr>
<td>1915c</td>
<td>Aging Waiver (#0247)</td>
</tr>
<tr>
<td>1915c</td>
<td>“Acquired Brain Injury Waiver (#0292)”</td>
</tr>
<tr>
<td>1915c</td>
<td>“Physical Disabilities Waiver (#0331)”</td>
</tr>
</tbody>
</table>
IV. DESIGN PROCESS AND DELIBERATIONS

The work to design the Plan started during the summer of 2011. Original work groups were comprised of stakeholders from a variety of community, education, business, health payer and provider groups, and government and elected officials. All were invited to comment on white papers written by leaders in five key health policy areas chosen by the governor’s office and UDOH. David Squire, Past Executive Director of the Utah Medical Education Council, wrote the white paper regarding health work force, Doug Hasbrouck, M.D., Past-Executive Director-Utah HealthInsight, authored the health information paper, and Richard Sperry, M.D. Past-Associate Vice President for Health Science and current Director of the Matheson Center for Health Care Studies wrote the payment reform paper. The cost containment and healthy lifestyles paper was written through a collaborative process which included Lt. Governor Greg Bell who was also the chair of the tort reform (now quality and reform) group and work supported and provided the work for that white paper. Over 130 experts participated in the review process and attended the first governor’s summit held that fall to bring these experts together to discuss the papers and develop “priority lists” of issues for action. Recommendations were forwarded from these groups to the governor. These recommendations became the basis for the Utah proposal to participate in the SIM project in 2012.

During the SIM process, the work groups were reconstituted with new members and objectives. Each work group (See Appendix A Stakeholder Engagement Plan) was tasked by the Utah SIM EPG to study the issues with a view of what would be needed to find evidence based support for moving Utah from a fee-for-service system to a value-based payment system. Stakeholders were involved in chairing, writing and reviewing each of the aims (goals) considered for the project. As the work progressed, more than 100 interventions were developed to implement seven major aims for the project. At that point, the review of staff and work group members concentrated on those aims and interventions that could show evidence of moving the needle towards a VBP system. With this end goal in sight, the Plan was born with very specific aims (4) and 29 interventions (activities) designed to move the state to the goal of:

“To have 80 percent of Utah’s covered lives involved in a VBP plan.”

The Plan is designed to address lower cost, better quality and better health for all Utahns by moving the state towards a value-based payment system by utilizing a trained health work force and system that is designed to deliver quality health care. This will be accomplished through development of health information technology that will speed and protect individual payment information between health systems and payers and assure elimination of unnecessary procedures while protecting patient privacy and safety.

The Plan Design

The road map for Plan implementation is laid out in two sections: first is a detailed description of the four aims, eight subaims and 29 interventions. This section contains rational and evidence for each aim. The second section is more specific detail on the aims and provides a description of Utah’s current system and how that aim and its corresponding interventions will assist the state’s health system to meet that transformation goal.

V. UTAH’S ROAD MAP TO HEALTH SYSTEM TRANSFORMATION

A. Value-Based Purchasing

1. Description of Current Health Payment Systems

A primary aim of the Plan is to improve the value of health care provided in Utah by helping to accelerate the transition from reimbursement primarily based on encounters with providers to reimbursement driven by patient outcomes. The Plan identifies key levers where the state can improve systems, develop measures, or increase training in order to facilitate this transition. To this end, the Plan has identified five specific subaims that the state believes will accelerate the transition:

- **Subaim 1.1:** Increase Utah stakeholder use of key health information technology (HIT)-enabled tools by 60 percent to support timely and accurate information for value-based delivery of care and payment reform
- **Subaim 1.2:** Improve security measures of key HIT enabled tools
- **Subaim 1.3:** To have 80 percent of Utah’s covered lives involved in a VBP plan
- **Subaim 1.4:** Align supply/demand workforce projection methodologies with a VBP environment
- **Subaim 1.5:** Prepare/train providers to perform in a VBP environment

HIT Tools – Statewide-Master Patient Index

The Utah State Legislature has authorized UDOH to establish the sMPI. The legislation established the Utah Digital Health Service Commission to direct, monitor, and report the development and operation of the sMPI. This body will advise UDOH in the development of an administrative rule to regulate the sMPI governance and operation. Privacy Protection will be afforded by the statewide secured patient directory (sSPD) for health services under the UDOH’s general authority. It will serve as a mechanism to protect patient rights and privacy through contributing organizations. The goal of the sMPI is to be a budget-neutral system for the state of Utah.

The consent policy related to a sMPI is focused on addressing the areas of consent to access and consent to disclosure. When consenting to access, a patient is agreeing to allow access of their demographic information by the sMPI consumers. With consent to disclosure, a patient is authorizing their provider to disclose demographic information to the sMPI. The policy further indicates that consent must be obtained by sMPI data sources per transaction, or visit. The operational exchange for implementing the two consent processes requires a technical and secure infrastructure. While there is legislation to authorize the sMPI, there is virtually no technical infrastructure to establish the sMPI at this time.
HIT Tools – Use of Clinical Health Information Exchange (cHIE)

HIT is the backbone of care delivery redesign and payment redesign. It will provide the data infrastructure and interoperability that allow for the establishment of methods by which medical homes, shared savings, accountable care organizations, and payment reform can happen. Without outside funding, small, independent providers may not currently be able to afford the cost to bring in technical assistance to adopt and effectively use HIT. A failure to provide adequate education and outreach of HIT efforts will delay adoption and effective use of electronic health records (EHRs) and the cHIE possibly creating delays in the effective use of these intended technologies.

Many practices have not adopted processes around quality improvement, population care management, patient engagement and care coordination. Such processes would be necessary to operate in a changed reimbursement model which pays for quality and outcomes instead of just visits. These practices currently have inadequate knowledge, training, and policies around privacy and security, often misinterpreting Health Insurance Portability and Accountability Act (HIPAA), privacy and risk assessment and mitigation requirements.

cHIE Security

The Utah Health Information Network (UHIN) operates the cHIE in compliance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA), Health Information Technology for Economic and Clinical Health (HITTECH) Act of 2009, and OMNIBUS regulations as a business associate to providers and payers. The rules governing the cHIE are found in Section 45 of the Code of Federal Regulations parts 160 and 164. UHIN members are contractually required to comply with all state and federal requirements for the use, disclosure and protection of protected health information (PHI).

UHIN authenticates and approves members for access to the cHIE system. Access is provided appropriately to the member based on his or her job responsibility. This role base access allows the cHIE to limit the ability of the user to view, add or change data based on the access role. Prior to access of data the user is required to attest to the nature of the relationship to the patient. All access is tracked and logged for reporting and security purposes.

Currently the cHIE access monitoring is designed to operate the same way the many access monitoring programs work: to record access logs and to restrict access based on those logs. However, it does not include features such as geographic proximity monitoring of the patient’s home address to the provider’s service location, same last name and other more subtle indicators of possible inappropriate access by an authorized clinician user. The access monitoring system is primarily a technical solution to a problem that is human in nature: authorized users may abuse their access either deliberately or through ignorance of their responsibilities. Therefore, it is crucial that any technical solution be paired with privacy and security training and testing procedure that all authorized users are subject to. The larger healthcare systems already deploy active privacy and security training and testing of their employees. Typically however, smaller healthcare providers may fall short.

Payment Systems

In order to begin to project the potential impact of the Plan on health care costs in the state, Leavitt Partners was engaged to provide a financial analysis of some of the aims. As part of that work, they canvassed the data regarding payers and recipients in the state and developed the following estimates for enrollment in each of the major coverage groups:

- Private – approximately 1.9 million people
- Medicare – approximately 0.3 million people
- Medicaid – approximately 0.3 million people
- CHIP – approximately 0.04 million people
- Uninsured – approximately 0.4 million people

In addition to collecting enrollment information, Leavitt Partners attempted to identify whether these coverage groups were receiving care through some sort of VBP. The following categories for these payments were created.

- No value-based purchasing: Includes traditional fee-for-service arrangements along with other plan types, such as preferred provider organizations, that have no significant value-based compensation in place
- Partial value-based purchasing: Includes private health maintenance organizations, Medicare Advantage, Medicaid accountable care organizations (ACOs) as well as private ACOs and medical homes that have some incentives to reduce costs but do not meet the requirements for full value-based purchasing
- Full value-based purchasing: Includes Medicare ACOs and other public/private ACOs where providers are compensated on a capitated basis for serving a defined population and compensation is based, at least in part, on meeting defined healthcare quality metrics

Private Coverage

Because there are a large number of private plan options and it is difficult to tell from the data how enrollment is distributed across plan types, it is difficult to estimate how many individuals with private coverage are receiving the major part of their care through value-based purchasing arrangements. Leavitt Partners found that there are many different types of private plans that would be best categorized as partial value-based purchasing. However, it could not identify significant enrollment in private plans that satisfy the definition of full value-based purchasing.

Medicare

Medicare Parts A and B are generally categorized as no value-based purchasing. However, CMS has been introducing a Physician Value-based Payment Modifier. The Value Modifier provides for differential payment to a physician or group of physicians under the Medicare Physician Fee Schedule based upon the quality of care furnished compared to cost during a performance period. To the extent this modifier is introduced in payments to Utah physicians, it would move Medicare payments towards full value-based purchasing.

Because Medicare Advantage plans are paid to provide overall coverage to their enrollees, they are considered to be in the partial value-based purchasing category. It is not known if payments are tied to quality measures.

Utah has one Medicare ACO in operation, the Central Utah Clinic. It is estimated that current enrollment in this plan is 9,000. Because Medicare ACOs tie reimbursement to quality measures, this population is considered to be full value-based purchasing.

Medicaid

Residents of the four largest urban counties, which contain about 7 of 10 Medicaid members, are required to join one of the new Medicaid ACOs. This population was categorized as partial value-based purchasing. ACO receive capitated payments for each member and the plans must meet minimum quality thresholds to partici-
pate. However, their reimbursement rates are not based on quality metrics performance and therefore Medicaid ACO members were not included in the full value-based purchasing category.

CHIP
All CHIP enrollments in the State qualify as partial value-based purchasing. CHIP managed care plans receive capitated payments for each member but their reimbursement rates are not tied to performance on quality metrics.

Uninsured
Many groups contribute towards the care of the uninsured, particularly for the poor. Community Health Centers, charity care clinics, and charity care provided by commercial providers are all important parts of this care and its financing. For the purpose of this analysis, all uninsured Utahns are assumed to fall into the no value-based purchasing category because their care is more than likely uncoordinated and is provided and paid for on an encounter basis.

Adapting the Utah Health Work Force to a Value Payment Environment
Training for health professionals to use best practices for their patient mix in the ever changing payment reform world is vital to assuring that quality remains equal with reform. Across this document the issues of workforce mix, training and distribution are discussed. Current training programs are beginning to meet the need for providers who are well versed in coordinating behavioral care with primary care, who understand a value-based payment environment, the need to utilize electronic patient records and improve or maintain quality and patient safety. But the education systems need time and assistance to gear up for this training and assure that they are focused on better care and better health, while preparing to use systems that will assist them to provide those services at lower cost. Utah health care professionals have a direct impact on the costs and quality of health care. This impact can be due to the types of health professionals (specialists versus primary care), the number of health professionals (too few or too many), and the distribution of health professionals (urban versus rural). Each of these factors affect both the cost and/or quality of the health care delivered.

Developing a health care workforce that is large enough and balanced enough to meet Utah’s needs is a critical issue, but access to health care providers for all Utahns, regardless of where they live, is an equally important issue. The term, “maldistribution,” can describe an inefficient mix of medical specialties (too many specialists or not enough) and the fact that our current health care workforce tends to settle in the more affluent, urban neighborhoods rather than rural or poor neighborhoods.

2. Transforming to Value-Based Purchasing

HIT Tools – Statewide-Master Patient Index
When receiving health care, patients interact with many different health care providers. Providers usually contract with many different health plans. Value-based purchasing can achieve its greatest effectiveness when it can reach across these systems and provide a complete and accurate picture of the care that an individual is receiving. Therefore, one of the fundamental needs of value-based purchasing systems is the ability to accurately track a patient’s identity across diverse systems and thereby enable the efficient and correct correlation of clinical data to their identity. In addition, inaccurate patient demographic information can lead to medical errors, fraudulent medical data, and medical/insurance identity thefts. These errors, frauds, and thefts raise the cost of care in all systems. A trusted solution to solve these issues would not only raise the quality of care by ensuring providers have accurate information on patients but also reduce the costs from abuses.

It is the goal of the sMPI to act as the definite master person index for all healthcare activities in Utah. UDOH will be responsible for the sMPI. The UDOH research efforts are currently focused on creating the technology and policies for a sMPI in order to satisfy the critical need to link records across disparate institutions. Each sMPI entry will contain only enough information to uniquely identify an individual and map that individual to original data sources. While the sMPI will not contain encounter-specific information, it will provide the capability for qualified investigators to link institutional records into patient-specific longitudinal health histories.

UDOH will develop and enhance HIT-enabled tools and assess the impact of these tools to support identity verification for persons in Utah for healthcare systems, providers, payers, health information exchanges, and public health efforts that require this service. UDOH will issue a Request for Proposal (RFP) to identify an eligible organization to develop, operate, and manage the sMPI, as well as have a self-sustainable business model beyond implementation of the Plan.

During and after implementation UDOH will review the status of the supporting development of the HIT-infrastructure to assess accuracy, access, data availability, and uptake and adoption of the sMPI. UDOH will show the impact of the use of the sMPI on the measures described below which include end-user, stakeholder feedback. UDOH will refine the sMPI when needed to improve functionality.

HIT Tools – Use of Clinical Health Information Exchange
The Plan includes a technical assistance intervention program to help providers in areas and stages that will not be covered by other programs. Through the intervention program, providers with high Utah Medicaid patient volumes can continue to receive subsidized support in order to meet the demands of state and federal requirements as they increase and become more challenging over time. This intervention program will maintain HIT efforts in small, independent practices most needing assistance with interoperability, measurement, and connectivity with their medical neighbors. This intervention program will also help in the sustainability of medical home projects and initiatives as adopting and meaningfully using HIT is a required stepping stone to use of HIT and redesigned care processes to improve care and patient outcomes.

Clinical Health Information Exchange Security
The Plan will increase cHIE access monitoring in order to build trust that all use of the cHIE is effectively monitored. The intervention will substantially advance the authorized user access monitoring capability of the cHIE, particularly for the smaller providers.

For the large entities who have adopted this active approach to access monitoring, UHIN will continue to give them logs of their personnel who have accessed data on the cHIE. They will deploy their existing (and constantly improving) access monitoring strategies incorporating our data. However, for the smaller entities, it is necessary that a person quickly follow up on suspicious access. This will require sufficient staff to accomplish active follow up procedures.

In addition, an on-line training program will be created. The goal of this privacy and security training and testing is to make authorized users aware of their legal responsibilities when they use the cHIE. When appropriate, a larger system’s training and testing will be held to be equivalent and therefore the employees of those systems will not be required to go through the specific cHIE privacy and security training and testing. Health care systems/providers that do not have equivalent training and testing in place will be required to go through this process prior to being granted the status of authorized user and given security privileges appropriate to their role. Authorized users will be required to take this training (as per HIPAA requirements) and then to pass an online test to be re-authorized to use the cHIE.
Payment Systems
In order to begin to transform Utah’s purchasing for health care, there needs to be a common definition of what quality means to the state. This initiative will bring together a wide range of key stakeholders to help select the quality measures that will be used to judge the performance of the value-based purchasing arrangements that are being piloted by different entities around the state.

Once these measures have been identified, UDOH will work with three entities that agree to pursue purchasing arrangements using the measures. Over time, performance by these groups will be compared and analyzed to see which initiatives produced the greatest value. Based on the information learned from the measures and the analysis, smaller providers will be trained and assisted in implementing these evidence-based practices.

A common concern in value-based purchasing contracts is that any contract between a payer and provider is necessarily limited to measuring the patients covered under the arrangement since it is generally difficult to find ways to aggregate data on a specific patient across providers or for a specific provider across payers. The APCD can be used to address both of these issues. It can serve as the source of information for creating most, if not all, global value measures, because it is the only place where providers and payers can be measured in terms of cost or quality across their entire membership or scope of practice.

Integration of Value and Quality in Workforce Training
The Plan outlines how providers will be assisted and trained in adapting and performing well in a VBP environment. Such an environment has multiple characteristics of practice delivery that may be new to current practitioners. Practicing well in a VBP environment requires such skills as care coordination and coaching, care management, population management, use of information technology, motivational interviewing, behavioral health screening, collecting and reporting quality metrics, providing medical homes for geriatric populations, the chronically ill or those with complex medical conditions, and team collaboration.

Care managed patients show improved adherence to disease guidelines, particularly patients with diabetes and depression. The odds of hospital admission are reduced (24-40 %) in patients with complex chronic illness assigned to a care manager. Death is reduced for patients with complex illness by over 20%. Physicians are able to create a more efficient practice through better use of documentation, a slight increase in patient visits, and a change in practice pattern.

The Health Workforce in the Utah VBP Environment
- Subaim 1.4: Align supply/demand workforce projection methodologies with a value-based purchasing environment
- Subaim 1.5: Prepare/train providers to perform in a VBP environment

These aims will be accomplished using a variety of strategies. First, the state must develop new systems of predicting need that are based on historical work. The Utah Department of Workforce Services and the Utah Medical Education Council, utilize current methods of predicting need based on physician (practitioner) to population. While these methods remain a critical component, they are not sufficient to determine mix of primary care/behavioral health providers. These systems need to be expanded to incorporate team-based configurations as well as population needs.

Using current and new training methods, providers will be taught to serve in a value-based purchasing environment utilizing care management training and care coordinators to facilitate the use of quality measures and health information technology. Improving access to behavioral health services and integrating them with primary care particularly in rural areas will require more advanced and regular use of technologies such as telehealth and advanced practice providers whenever possible.

B. End of Life Systems and Integration of Behavioral Health
1. Delivery of Current Health Delivery Systems
As Utah is a demographically young state, end of life issues require a sensitive and respectful approach that starts such conversations with dignity and is conducted prior to the time of the need for such a decision. This is not an easy task and must be undertaken with both the community and the healthcare sector.

Proposed end of life interventions are based on the recognition that end of life expenditures creates a burden to Medicare and the society. In 2011, Medicare spending reached close to $554 billion, which amounted to 21 percent of the total spent on U.S. health care in that year. Of that $554 billion, Medicare spent 28 percent, or about $170 billion, on patients’ last six months of life10. The issue is additionally complicated by the fear of death panels promulgated during the Accountable Care Act political dialogue. Utah’s plan addresses end of life preferences in three ways. These ways include: 1) the use of information technology as an infrastructure to improving access to the end of life directives, 2) training physicians on crucial conversations, and 3) conducting community outreach and educational activities. The goal of such interventions is to create a cultural shift towards the expression of end of life preferences, documentation of such preferences, and access to those preferences at the right time. If conducted with dignity and respect, an overall decrease in end of life institutional spending should decrease with subsequent increases in home based comfort care. Alignment of home based services to Medicaid to support home based comfort care has not been addressed by this plan.

Regulations in place for such an approach include the ePOLST authorized by Utah law § 75-2a-106 under the Life with Dignity Orders. UDOH’s Information Technologists were the creators of Utah’s pilot ePOLST system. The private, nonprofit organization HealthInsight provided guidance and oversight. Pilot funding came from the Federal Beacon Community Cooperative Agreement Program. The aim was to show how health IT investments and meaningful use of electronic health records advance the vision of patient-centered care, while achieving better health and better care at lower cost. As one of 17 Beacon Communities nationwide, Utah Improving Care through Connectivity and Collaboration (IC3) has assisted Utah’s health care organizations find ways to reduce costs and improve health care using innovative technology and best practices.

The ePOLST registry was created through the IC3 Beacon grant. The registry is in place with approximately 200 users. Efforts through this plan will improve the documentation and reach out to the community to expand its use. Payment for end of life services by healthcare plans will need to accompany the resource and will be addressed during the community conversations.

2. Transforming Current Systems to Integrate End of Life Systems and Behavioral Health and Primary Care
Like most states, Utah is developing a program to improve communications between patients with advanced illness, their families, and health providers – a means that allows frail patients to request or refuse certain measures such as resuscitation. Unlike most states, Utah’s will be an electronic system, rapidly accessible by authorized emergency medical providers. The Utah Commission on Aging has accepted responsibility to help implement the electronic Physician Order for Life Sustaining Treatment, or ePOLST.
Emergency Responders will be primary users of the system, and the frail elderly one of the primary beneficiaries. Its development is coupled with federal and state health care quality and safety reforms. In October, 2013, the Commission on Aging was funded to guide the system from pilot to functional status and stability. This will require changes in public, emergency medical, and hospital administration information system policies. The Commission on Aging is administratively housed by the University of Utah School of Medicine’s Division of Geriatrics. The Commission will help stakeholders weigh key factors in determining where to permanently house and how to fund the system. Sustainable funding for registry operations is vital to its long-term success, as Utah joins 43 other states in POLST program outreach.

Behavioral Health Care Needs and Services

Behavioral healthcare services are falling short throughout the state of Utah. The Utah healthcare professional shortage map below shows the vast majority of counties demonstrate the ratio of population-to-psychiatrist as greater than 30,000 (purple). All counties in Utah with the exception of the urban Wasatch Front are in need of psychiatrists (Figure 10).

Admission rates to hospital inpatient services for those with Mental Health Disease Diagnosis have been on the rise in Utah since 2004. Second only to trauma calls, behavior/psychiatric calls account for 7.5% of all calls to emergency medical systems across the state of Utah, as documented by the UDOH/Bureau of Emergency Medical Services and Preparedness. Emergency Department (ED) encounters as a result of Behavioral Health (mental health/alcohol related) diagnoses as a percentage of all ED encounters has been steadily increasing over the past decade. The patterns experienced in Utah are described in Figures 11 and 12.

The prevalence of mental disorders in children and adolescents is high; one in four to five adolescents in the general population experience disorders that result in severe impairment. It is well established that there is an insufficient number of child and adolescent psychiatrists and other pediatric mental health providers to provide mental health treatment for all children who need it. Currently, most children with a mental illness do not receive any treatment, and most in the general population who do receive treatment are treated by primary care providers. Providing mental health treatment in primary care has been shown to decrease stigmatization, and has also been associated with enhanced clinical outcomes and higher patient satisfaction. Pediatricians and other pediatric primary care providers are well situated to provide mental health treatment to their patients, but often suffer from a lack of access to mental health specialists and limited training in mental health issues during residency. As a result, these providers often lack confidence in diagnosing and treating mental disorders within primary care settings. For these reasons, a growing number of collaborative care models across the nation have examined how to best treat mental illness within primary care by increasing consultation services with psychiatrists and other mental health professionals.
Utah is no exception in the limited access to mental health care for children. Members of the local chapter of the American Academy of Child and Adolescent Psychiatry were surveyed and of the 53 surveys that were sent out (which represented the number of active attending child psychiatrists in the state of Utah), 21 surveys (39.6%) were returned. Of those 21 psychiatrists, 14 (26% of child psychiatrists in Utah) indicated that they were accepting new adolescent outpatients, although 3 of them only accepted special populations. The average wait time, for a new evaluation appointment was 44.8 days\(^1\). The admission rates for children (15 yrs. or less) to hospitals with mental health or alcohol/drug diagnoses as a percentage of all children admissions reached a low of 6% in the late nineties down from over 10% in the mid-nineties, but has seen a steady increase over the last decade to over 8.5% in 2011.\(^2\)

When looking at children under the ages of 15 or younger, the percentage of hospital discharges has been steadily increasing since 2003 (Figure 13)\(^3\). This indicates additional need for psychiatric behavioral health services to our most vulnerable populations.

![Figure 13. Children with Mental Health/Alcohol Diagnoses as Percentage of Hospitals Discharges of Same Age (1990-2011)](image)

Working to address limited access to psychiatrists, a pilot project was created to improve access to pediatric mental health services in Utah. This early pilot project is known as GATE Utah, Giving Access to Everyone, a novel, web-based consultation model. Their goals are to improve access to mental health services for children and adults, improve collaboration between primary care physicians and mental health professionals, and enhance knowledge of how to manage mental health conditions in the primary care setting. As opposed to the traditional psychiatric clinic, GATE Utah believes they can influence the greatest number of people with the GATE Utah system by providing high quality care to families and children, while at the same time lowering costs and maintaining the majority of the treatment in the medical home \(^4\).

Behavioral health issues are costing the medical healthcare system over $250 million a year in both Ambulatory Sensitive Conditions (treat and release) (Figure 14) and inpatient hospitalizations (Figure 15) with 90% of the Mental Health/Alcohol/Drug related expenditures occurring in less 25% of the 29 counties (Figures 16, 17)\(^5\).
C. Workforce Development

1. Current Workforce System Performance

In terms of health care costs vs. outcomes, Utah is already among the highest quality, lowest cost providers in the country according to the Utah Health Foundation (2012) and Kaiser Family Foundation (2007) (Figure 18). Ranked 6th in the nation in health in 2012, Utah’s personal healthcare spending per capita of $5,031 was the lowest in the country compared to the U.S. per capita rate of $6,815 in 2009. (Health Care Expenditures measure spending for all privately and publicly funded personal health care services and products (hospital care, physician services, nursing home care, prescription drugs, etc.) by state of residence. Hospital spending is included and reflects the total net revenue (gross charges less contractual adjustments, bad debts, and charity care). Costs such as insurance program administration, research, and construction expenses are not included in this total. For more information on definitions, sources, and methods, please see http://www.cms.gov/mmrr/Downloads/MMRR2011_001_04_A03-.pdf)

However, as Figure 19 illustrates, Utah is not immune to the rising costs of health care and mirrors the cost trajectory nationwide albeit at a lower cost.

Like many other western states, Utah is challenged by demographic issues that impact accessibility to critical services. Efforts to improve workforce composition and distribution in a changing financial and delivery market must take into account: 1) the current and ongoing needs of our community and our ability to accurately assess for those needs, 2) the gaps in distribution of relevant workforce professionals in our rural and underserved areas, 3) the anticipated reconfiguration of the healthcare workforce in light of the demands for accountable care organizations, medical homes, primary care and team based care, and 4) Utah-specific accessibility issues.
In the wake of health care reform, there is an urgent need for a critical analysis of how anticipated financing and delivery changes will affect both the demand for primary care providers (medical, nursing, dental and mental health) and their ability to deliver and provide optimum patient care. The increased demand for healthcare services as a result of healthcare reform exacerbates the current mal-distribution of providers in different specialties and geographic regions. Training healthcare workers at all levels is essential in creating newly designed delivery configurations that can function cost effectively and with high quality. Healthcare reform has resulted in complex challenges to improve efficiency, reconfigure health care delivery systems, and make better use of both physicians and other health care professionals.

Current approaches to assessing healthcare workforce needs reflect the past rather than preparing for the future. They are often siloed in their organizational structures and approaches, assume a traditional delivery market place, lack timeliness, and may not map to actual population health patterns. As the healthcare market place is transformed from fee-for-service and volume-based care to value- and outcome-based care, workforce assessment methodologies need to change as well. Statewide projections and national statistics do not adequately address the distribution of resources within a state like Utah that contains a mix of urban, rural and frontier service areas. Workforce supply must match local primary care needs at the local community level. Workforce planning at the local level requires a surveillance system that can provide accurate and timely assessments of population needs, thus providing critical decision support to policy makers, educators, and students.

In Utah, healthcare workforce needs are determined through a number of already sophisticated approaches. These approaches include: 1) the use of survey methodologies conducted by the Utah Medical Education Council (UMEC) and the UDOH/Bureau of Primary Care/Office of Primary Care and Rural Health; 2) the use of current vacancy listings managed through the Department of Workforce Services; and 3) the number of currently licensed professionals maintained by the Department of Commerce, Division of Occupational and Professional Licensure.

Established in 1997 out of a need to secure and stabilize the state’s supply of healthcare clinicians, UMEC promotes healthcare workforce planning, production, and policy through assessment, innovation, and collaboration with stakeholders. The UMEC is presided over by an eight member board appointed by the Utah Governor to bridge the gap between public/private healthcare workforce and education interests. UMEC has forged relationships with the various governmental players in order to integrate assessment methodologies into a more robust and responsive workforce surveillance system.

Figure 20 illustrates the current functioning of the workforce surveillance system with proposed recommendations and interventions (red text) for a revised model.

By national standards, Utah’s physician shortage is even more severe than most other states in the country. As Figure 21 shows Utah ranks among the states with the fewest physicians per capita. In contrast, Utah ranks among the highest quality, lowest cost providers in the country, resulting in a healthcare paradox.

In 2010, UMEC conducted a survey of all Utah licensed physicians to understand the characteristics and shortfalls of Utah’s local workforce. Utah has approximately 178 patient care physicians per 100,000 people, which is 40% below the ratio recommended by the Council on Graduate Medical Education of 290 physicians per 100,000 (Figure 22). Twenty-three of 29 counties in Utah were found to have some form of Primary Care Health Professional Shortage Area (HPSA) designation (Figure 23).

The Council concluded that Utah would need 332 physicians each year to replace retiring physicians, to adjust for the growing population, and to meet the increasing needs of an aging population.

As previously mentioned, current approaches to healthcare workforce surveillance reflect past methodologies rather than the future of an interdisciplinary, team-based and collaborative practice approach. Current methodologies are often siloed structures and approaches, assume a traditional delivery market place, lack timeliness, and may not map to actual population health patterns. As the healthcare market place is transformed from fee-for-service and volume-based care to value- and outcome-based care, workforce assessment methodologies need to change as well.
Utah aims to model the successful teamwork approach to healthcare delivery. The Utah healthcare workforce consists of physicians (MD’s and DO’s), advanced practice registered nurses (NP’s, CNM’s, CRNA’s), PA’s, medical assistants, pharmacists, dentists (DDS and DMD), and mental health therapists (clinical psychologists, clinical social workers, family therapists, professional counselors). Given that 15.5% of the Utah population lives in rural areas, the healthcare workforce does not match that of the rural population, ranging from 7% of PA’s to 12% of physicians (Table 5).

### Table 5. Utah Distribution of Rural Area Providers

<table>
<thead>
<tr>
<th>Rural Practice</th>
<th>Physicians</th>
<th>PA</th>
<th>APRN</th>
<th>RN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>35</td>
<td>60</td>
<td>64</td>
<td>61</td>
</tr>
<tr>
<td>2003</td>
<td>39</td>
<td>60</td>
<td>64</td>
<td>61</td>
</tr>
<tr>
<td>2008</td>
<td>43</td>
<td>60</td>
<td>64</td>
<td>61</td>
</tr>
<tr>
<td>2015-2018</td>
<td>51</td>
<td>60</td>
<td>64</td>
<td>61</td>
</tr>
</tbody>
</table>

The current health care system performance as it relates to linking community and clinical care is weak and uncoordinated. Though there are a few organizations that are starting to link primary care physicians with community health workers (CHWs), the majority of organizations do not. The result is that patients leave the doctor’s office with behavioral health recommendations (e.g., eating more nutritious foods, obtaining and main-
taining a healthful weight, getting regular physical activity, not consuming tobacco products) and are expected to implement the recommendations with no formal support system. Some patients succeed in this current health care system environment, but the majority are not able to implement sustainable behavior change.

Diabetes, the most expensive chronic condition to manage in the health care setting, was the primary reason for 2,523 hospitalizations and $49 million in treatment costs for Utah in 2011. In the same year, nearly 8% of the adult Utah population, 142,557 people, had been told by a doctor that they had diabetes (Figure 24). This rate has more than doubled since 1989. The risk factors for developing type 2 diabetes are overweight/obesity and an A1C blood test in the pre-diabetic range. In 2010, 5.1% of the Utah adult population was told by a doctor that they had pre-diabetes (based on A1C blood levels or glucose in the urine), approximately 97,105 adults. Adding both overweight/obesity and reducing one’s A1C blood test to a normal level can generally be achieved through diet and exercise. Physicians generally counsel overweight/obese patients with diabetes and patients with pre-diabetes to lose weight and eat a healthful diet. After leaving the physician’s office, patients return home and are left to figure out how to implement their physician’s recommendations.

The increased percentage of obese adult in Utah is impacting the state’s cost of health care. Utah’s adult obesity-related health care expenses were estimated at $485 million in 2008. By 2018, assuming that the current rate obesity trend continues, Utah’s obesity-related adult health care expenses are projected to be $2.4 billion, representing a $1.9 billion increase. However, if the obesity prevalence rate were to stabilize at the 2008 rate of 23.2%, the 2018 Utah obesity-related adult health care expenses are estimated to be $946 million, a savings of $1.4 billion (Figure 25). The 2011 Utah adult obesity rate was 25.0%.

3. Transforming Current Systems to Include Community

The state’s goal for improving care, population health, and reducing health care cost were the drivers for the selection of the two aims being proposed in the area of community health. The two aims are: the use of CHWs and the implementation of a common wellness agenda (CWA) at the community level.

The strategy to include CHWs in the health care work force will increase effectiveness, efficiency, and appropriate mix of the health care workforce. When CHWs work collaboratively with primary care physicians there is an increase in effectiveness and efficiency because there is a greater likelihood that the patient will take their medications as prescribed and follow the physician’s directions (e.g., adopt new health behaviors like eating more nutritious foods, obtaining and maintaining a healthful weight, getting regular physical activity, not consuming tobacco products). CHWs could tackle not only behavioral health but also substance abuse (which impacts the patient’s ability to implement behavioral health changes), children’s dental health (which is integral to healthful eating), and long term services and support (such as supporting older adults and people with disabilities to maintain independence and maximize self-determination). If CHWs and primary care physicians work effectively together to optimize patient health then it might be easier to move away from health care provider payment based on volume and move towards a payment system based on outcomes.

Use of CHWs allows for an increase in primary care capacity because the physician, nurse, and CHW can work at the top of their licensure thereby containing cost and increasing patient support simultaneously. Optimally, health care organizations would have policies to integrate CHWs into their care mode thereby working towards a more effective and less expensive workforce.

The CHW aim includes the use of information technology (IT) to transmit patient health information back and forth between CHWs and the primary care physicians. This transfer of information will help both CHWs and primary care physician’s work efficiently as well as optimize patient health. The mode of transmission could be electronic health records or a health information exchange, currently these are both being tested in Utah. The IT solution must provide information that will help to improve health and coordination of care across service pro-
Use of these types of IT solutions would allow extended reach to providers and residents in rural areas and connect providers, including providers with small practices, with behavioral health providers.

The strategy to create a CWA at the community level will help to develop community awareness and engagement in state efforts to achieve better health, better care, and lower cost through improvement of all segments of the population. This will be accomplished by demonstrating how a community can come together to tackle health disparities within their community.

Encompassed within the CWA aim is the charge to develop a community coalition, a community-level CWA, develop and implement effective community-based initiatives to improve health outcomes and develop effective reporting mechanisms for these outcomes. The focus of the CWA will be created by reviewing state and local-level data and considering national and state plans (e.g., Health People 2020, National Prevention Strategy, National Quality Strategy, Million Hearts Campaign). This will enable the final CWA to align with national and state health objectives.

Since the selected community will most likely be a low income community, there will be an opportunity for the community coalition to review and identify options for leveraging local community stabilization development initiatives to increase community health. The review would be guided by the CWA to ensure all community activities support community health.

The selection of the community-based initiatives and creation of the reporting mechanism will be the responsibility of the community coalition thereby ensuring accountability. Since the coalition will be comprised of community stakeholders (e.g., health care providers, governmental agencies, health plans, and community leaders), the accountability for coalition activities will reside within the community. The selection of community-based initiatives will include review of current or expanded models, such as the Administration on Community Living’s Aging and Disability Resource centers, with the intent to strengthen long-term services and support systems to promote better health for the entire community.

The community will need help implementing the CHW aim therefore the Plan includes the use of a backbone organization to support community activities. The backbone organization will be selected after the community is selected and it will be an organization with close ties to the community and knowledge and expertise in community health. Public health authorities, such as local health departments, could fulfill these criteria. Selection of a local health department as the backbone organization would allow for greater coordination between health care providers and public health authorities. This model could allow for coordination of state efforts with non-profit hospitals’ community outreach activities.

Community Health Workers

Patients frequently face barriers in their communities when attempting to implement physician recommendations, including behavior change. Our aim is designed to improve the linkages between community health promotion and disease management resources with clinical care to help patients make healthier choices and adhere to clinical recommendations. Additionally, a number of efforts are underway within Medicaid and other health systems to improve appropriate use of emergency and preventive services.

Chronic health conditions (e.g., arthritis, asthma, diabetes, high blood pressure/cholesterol/triglycerides, obesity, etc.) generally respond well to management by low cost behavior modification such as eating more nutritious foods, obtaining and maintaining a healthful weight, getting regular physical activity, and not consuming tobacco products.

Our goal is to reduce disparities in health care, reduce health care costs, and improve coordination and support of patient care by integrating Community Health Workers (CHWs) into the workforce mix of provider support staff. CHWs can make a valuable contribution by improving access to community wellness resources and services which are present in the community but may be underutilized by the residents who need them most. As trusted members of their local community, CHWs are able to effectively extend the reach of health care organizations into local communities and help individuals experience better care, achieve better health, and lower health care cost. This model allows for culturally appropriate, local patient support.

Our goal is to increase the proportion of health systems and plans that engage CHWs to link patients to community resources that promote good health and self-management of chronic diseases. We propose to employ CHWs, who are trained members of the patient’s community, to work with patients to ensure medication adherence, support patients to implement physician health behavior recommendations, and link patients to community and clinical resources. A CHW can connect patients with local prevention and chronic care resources (e.g., chronic disease self-management programs, recreational opportunities, farmer’s markets, quit smoking resources, etc.), maintain communication with patients to support their efforts, and communicate with physicians regarding a patient’s progress. Integral to this goal is the ability to provide two-way communication between physicians and CHWs. A major role of CHWs is to support patients by linking them with local community services. The support that CHWs can give to patients will lead to better patient care, implementing physician-recommended behavior change will lead to better health, and, since CHWs will work at the top of their licensure as opposed to physicians, physician assistants, or nurses working at the lower end of their licensure, health care costs will be lowered. This could influence voluntary policy regarding reimbursement of CHW services among private and public payers. Reimbursement will optimize use of CHWs and ensure that they are recognized and utilized in a sustainable way for their valuable contribution to the health care system and are actively engaged and linked to the places where people live, work, learn, play and pray.

The development of a standardized, statewide training curriculum and registration process is critical in order to ensure a group of competent CHWs are available that health systems and organizations can employ. The standardized statewide training curriculum and registration process will help assure health systems and organizations are comfortable with the training level of individual CHWs which will allow them to incorporate CHWs into their system/organization care models, thereby leading to better patient health care and better health through prevention and management of chronic conditions. The presence of a standardized training and registration process could influence payer willingness to reimburse CHWs.

A coalition has been convened to look at issues related to community health workers. The coalition hopes to form a formal Community Health Worker Association, and plans to consider financial sustainability and standardized training for community health workers. The coalition includes diverse representation from a number of sectors, including state and local governments, payers, non-profit organizations, and others.

Implementation of CHWs will result in improved coordination of existing community-based prevention and health promotion efforts, resulting in an optimal use of resources, maximized efficiency, and decreased duplication of services.

Common Wellness Agenda

The CWA was developed to engage communities in bringing together and better coordinating available resources and services. The CWA will address all sectors of the community where people learn, work, live, play, and pray. An integral part of the CWA is agreed-upon, community-determined measures which will be used...
to evaluate the progress of community initiatives, align mutually reinforcing activities, and hold organizations accountable for community-based outcomes.

The Plan proposes to create a CWA in at least one community in Utah. Public, private, and non-profit sectors in the community would agree upon wellness goals and implement them within their sphere of influence. The result will be a community in which the healthy choice is the easy choice. In other words, residents would be supported in implementing healthful behaviors like healthful eating, tobacco-free living, and getting regular physical activity. The community will be selected based on health disparities and readiness/willingness to participate in the project. It is critical that the community be engaged and has ownership in the project in order for the project to succeed and be sustainable. This concept was developed based on the principles of Collective Impact which are currently being implemented by the United Way of Salt Lake City. Similar projects are in effect in Somerville, MA and in Blue Zone communities around the country with great success. The Shape Up Somerville project targeted childhood obesity and has documented promising results. The Blue Zone project has had success in communities such as Albert Lee, MN (project started in 2009) where there has been a total of 12,000 pounds lost, an increase in life expectancy of 3.1 years, an average 21% drop in absenteeism by key employers, and city employees showed a 40% decrease in health care cost.

The goal is to create healthful environments in the community that are critical to support patient behavior change. Obesity, a condition that can lead to co-morbid chronic conditions, is greatly impacted by patient behavior change. Obesity is related to many chronic conditions including Type 2 diabetes, hypertension (high blood pressure), high cholesterol, cardiovascular disease, angina, heart attack, stroke, certain types of arthritis, asthma, Alzheimer’s disease, and some cancers. There is also an association between obesity and major depression as well as obesity and H1N1 influenza. Obesity and other chronic diseases can be positively impacted by three behavior changes: healthful eating, regular physical activity, and not using tobacco products.

Something as simple as a business providing a refrigerator and allowing employees to flex their schedules can result in employees eating more nutritious meals and getting regular physical activity. A government office that ensures healthful choices are included in the publically available vending machines allows visitors to select healthful snacks. A school that encourages the teachers to get students out of their seats for learning activities and includes healthful foods at lunch and in vending machines allows the students to build healthful habits and makes healthful choices easier. Teachers who model healthful eating can help make the healthy choice the easy choice which helps support healthful behavior change and leads to better health, resulting in lower health care cost.

Health Workers and Integrating Quality and Value

Implementation of the CHW aim will result in the addition of CHWs to the Utah health workforce. When the aim is implemented, core competency training and registration will be available to CHWs via the statewide CHW Association. The registration and the availability of standardized training will allow for standardization of CHW expertise, allowing health care organizations to have a comfort level with the quality of care that CHWs can deliver. Since the sustainability model is to have the health care organizations employ or reimburse CHWs standardization of CHW training is crucial.

The standard and quality of patient care will increase when CHWs and primary care physicians work together to deliver integrated care. The results will be better care and better health.

Integrating CHWs into Health Workforce Training

Training of CHWs and how physicians and health care systems can employ CHWs is an integral part of the CHW aim. Included in that aim is the task to create a business case for the use of CHWs. If health care organizations become aware of the benefit of using CHWs then they will be more inclined to incorporate them into their care model. Standardized CHW training is critical to creating the business case. Health care organizations need to be confident in the skills and abilities of CHWs in order to feel comfortable incorporating them into their health care model.

D. Aims and Interventions Narrative

The following narrative includes a list of all aims, subaims and interventions for the Plan. A rationale for each intervention is included along with the expected outcomes of the intervention implementation and how activities will be measured.

Key:
- INTERV = Intervention
- EXP OUT = Expected Outcome
- OUT MEAS = Outcome Measure

**Aim 1: To Adapt and Perform Well In A Value-Based Purchasing (VBP) Environment (Value = Quality Outcomes/Cost)**

**SUBAIM: 1.1** Increase Utah stakeholder use of key HIT-enabled tools by 60% to support timely and accurate information for value-based delivery of care and payment reform

**INTERV: 1.1.1** Develop a Statewide-Master Person Index to track patient identity across diverse systems to enable efficient correlation of clinical data

**Rationale**

One of the fundamental needs of the VBP systems is the ability to track patient’s identity across diverse systems and thereby enable the efficient correct correlation of clinical data to their identity. It is the goal of the sMPI to act as the definitive master person index for all healthcare activities in Utah. The UDOH will be responsible for the sMPI. UDOH will develop and enhance Health-IT enabled tools and assess the impact of these tools to support identity verification for persons in Utah for healthcare stakeholder organizations such as healthcare systems, providers, payers, health information exchanges, and public health efforts that require this service. UDOH will issue a Request For Proposal (RFP) to identify an eligible organization to develop, operate, and manage the sMPI, as well as have a self-sustainable business model. During and after implementation a review will be conducted to determine the status of the supporting development of the HIT-infrastructure to assess accuracy, access, data availability, and uptake and adoption of the sMPI. The impact of the use of the sMPI on the measures described below will be evaluated and include end-user, stakeholder feedback. The sMPI will be refined when needed to improve functionality.

In the healthcare system, inaccurate patient demographic information can lead to medical errors, fraudulent medical data, and medical/insurance identity thefts. A trusted solution to solve the issue of medical/insurance identity thefts is costly as well resource intensive. The Utah Digital Health Service Commission received a request from the University of Utah and Intermountain Healthcare to consider a statewide identity solution to healthcare services in January 7, 2010. The Executive Director of UDOH took the lead on instructing the statewide identity solution request. The commission established a subcommittee, discussed this issue at several public open meetings and reached a consensus on recommendations on July 7, 2011. The Utah Digital Health
Service Committee recommends the following:

- **Legal Authority:** UDOH is authorized by the state legislature to establish the statewide secured patient directory (sSPD) for health services under the UDOH’s general authority.
- **Governance:** The legislation establishes a governance framework for sSPD that includes a statutory governance body to direct, monitor, and report the development and operation of the sSPD.
- **Privacy Protection:** the sSPD functions as a mechanism to protect patient rights and privacy through contributing organizations.
- **Cost:** The goal of the sSPD trusted framework is to be a budget neutral system for the state of Utah.
- **Consent Policy:** The consent policy is focused on addressing the areas of consent to access and consent to disclosure. When consenting to access, a patient is agreeing to allow access of their demographic information to the sMPI consumers. With consent to disclosure, a patient is authorizing their provider to disclose demographic information to the sMPI. The policy further indicates that consent must be obtained by sMPI data sources per transaction, or visit. The operational exchange for implementing the two consent processes requires a technical and secure infrastructure.

The primary impact of this initiative is to create an infrastructure that will facilitate uniquely identifying each individual in the state who receive healthcare or public health services. This will allow; exchange of PHI appropriately, patient-provider attribution, development of the APCD, tracking of the patient’s healthcare journey across systems and encounters, create needed infrastructure for research as well as for standard reports for providers, payers, potentially community health workers, and policy makers in the state of Utah. The sMPI will also benefit key-HIT enabled tools such as the ePOLST and the development of quality and safety reports.

**EXP OUT:**

**OUT MEAS:** 1.1.1 An HIT infrastructure that is accurate has utility to the end-users in terms of person identification, and self-sustainability

**INTERV:** 1.1.2 Provide the necessary infrastructure and support to Critical Access Hospitals, Long Term Care, Behavioral Health Providers to make eHIE a viable platform for reporting both individual provider quality metrics and as a platform for reporting community quality metric benchmarks

**Rationale**

Health Information Technology is the backbone of care delivery redesign and payment redesign. It will provide the data infrastructure and interoperability that allow for the establishment of methods by which Medical Home, shared savings/ACO models, and payment reform can happen. Small, independent providers are not able to afford to directly buy technical assistance in order to adopt and effectively use HIT without funding for those resources. A failure to provide adequate education and outreach of HIT efforts will delay adoption and effective use of EHRs and the eHIE possibly creating delays in the effective use of the intended technology.

Many practices have not adopted processes around quality improvement, population care management, patient engagement and care coordination. Such processes would be necessary to operate in a changed reimbursement model which pays for quality and outcomes instead of just visits. These practices currently have inadequate knowledge, training, and policies around privacy and security, often misinterpreting HIPAA, privacy and risk assessment and mitigation requirements. Providers have implemented a large amount of health information technology over the past few years due to the Meaningful Use EHR incentive program. Stage 1 has prepared providers by requiring that data be entered in the right places for reporting. Stage 2 will allow better measurement and interoperability, and Stage 3 is expected to increase measurement and impact on patient outcomes.

Practices will require training in process redesign to move from simply adopting Meaningful Use of the EHR to the aligning of processes of care with the use of technology and to produce accurate reports on their outcomes. With implementation of technology, accompanying privacy practices and policies will need to be implemented to protect consumers and enable community-wide quality measurement and interoperability.

Payment reform will direct reimbursement from a fee-for-service model to a fee-for-results environment. Training in Quality Improvement methods, leadership and culture change to support team-based care will use adult learning models across practice setting and types of staff. Approaches to provide technical assistance should integrate the Utah SIM Plan elements so they do not compete with each other for provider attention. A holistic program or at least close coordination across programs will allow providers to make the most progress and not become overwhelmed.

Areas ripe for integration are many. Training in communication methods to address adverse events can be expanded to other crucial conversations such as end of life preferences. Such preferences as they are realized and documented can be adequately stored and retrieved at the time they are needed using HIT (ePOLST). HIT can be used for alerts and clinical decision support to decrease adverse events from ever occurring. Adequate levels of security of PHI will increase trust among providers across entities to co-manage patients across the continuum of care. Accurate patient and provider identifiers will ensure that that care coordination is possible.

In December of 2012, the Utah Digital Health Service Commission submitted The State Policy Paper on HIT Security entitled “Enhancing Privacy and Security of Protected Health Information in the State of Utah Through Education, Training, and Technical Assistance.” It emphasized that “the [HIT] investments are being made with the expectation of a return on investment (ROI) in the form of improved quality outcomes and decreased costs (i.e., improved value)” while recognizing however that “any ROI will only be realized to the extent that these systems are secure and individual privacy is maintained.” The white paper provides the following:

- The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 requires Health Insurance Portability and Accountability Act of 1996 (HIPAA) covered entities and their associates to adopt more stringent privacy and security provisions. The penalties for violations of privacy, security, and breach notification provisions are substantial. The Centers for Medicare & Medicaid Services (CMS) includes specific security criteria in their core measures of Meaningful Use of Electronic Health Records (EHR).”
- Potential weakest links in health IT Security are the independent clinics and hospitals and they need extra technical assistance in assessing and improving IT security – as testified by the Utah Medical Association and the Utah Hospitals and Health Systems Association.
- The security of the Statewide Health Information Exchange is dependent upon the security at each of the connected hospitals and clinics around the state.
Providers will need assistance in Stages 2 and Stages 3 of Meaningful Use to meet new requirements. To support providers and facilities through the remainder of the incentive program, advancing the effective adoption and use of HIT in Utah. The proposed interventions above will continue to provide education and support for providers and facilities through the remainder of the incentive program:

- Current incentives for Meaningful Use do not cover all providers and entities and organizations in the system (Behavioral Health, Long Term Care, and Home Health); therefore some important parts of our healthcare system are not incentivized towards HIT adoption.
- Current funded REC (Regional Extension Center) support tied to incentives for Meaningful Use does not cover all providers and is currently scheduled to end in February 2014.
- The end of the REC funding means the end of funding support for community outreach and education regarding Meaningful Use (e.g., Learning and Action Networks, Meaningful Use boot camps, webinars and community newsletters).
- REC assistance funding only helps providers in attaining their first year of performing the Stage 1 Meaningful Use standard. Stage 1 year 2, Stage 2 years 1 and 2 and Stage 3 years of meaningful use are not covered.
- Current assistance to the first year of Stage 1 meaningful use is only covered for Preferred Primary Care Providers (PPCPs) as defined by the ONC (Pediatrics, Family Care, Internal Medicine, OB/GYN and Geriatrics in practices with 10 or fewer providers). Support for providers not covered are:
  - Support for specialists (currently non-existent).
  - Assistance for Behavioral Health, Home Health and Long Term Care.
- Without providers performing Stage 2 of Meaningful Use, interoperability, engagement of patients and measurement of care will be difficult. Stage 2 requires providers to exchange records electronically, engage with patients through patient portals and measure care in new ways not included in Stage 1 of meaningful use.
- Providers will need assistance in Stages 2 and Stages 3 of Meaningful Use to meet new requirements around referrals, transitions of care and electronic exchange to support interoperability with the cHIE.
- Providers will need assistance in using their system functionality to engage patients through their patient portals and personal health record systems.
- Providers will also need assistance in using their systems to measure their care and integrate population-based healthcare processes within their own clinics to provide preventive care.

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The cHIE creates a common, community-based platform for providers involved in value-based payment models to exchange real-time healthcare data about their patients even if the patients receive care ‘out of network’, or from healthcare providers outside of the contracted provider’s healthcare system.

This activity involves the exchange of PHI between potentially thousands of clinics and hospitals and tens of thousands of providers in Utah. There is legitimate concern that inappropriate access by authorized users may occur. Unfortunately, many healthcare systems – large and small – have suffered from instances of inappropriate access by authorized users.

The purpose of the inclusion of this intervention is to substantially advance the authorized user access monitoring capability of the cHIE, particularly for the smaller providers. The cHIE has deployed an access monitoring program. It is designed to operate the same way the many access monitoring programs work: to record access logs and to restrict access based on those logs. However, it does not include features such as geographic proximity monitoring of the patient’s home address to the provider’s service location, same last name and other more subtle indicators of possible inappropriate access by an authorized clinician user.

Larger healthcare systems tend to deploy systems with these additional features. Smaller healthcare systems are perceived to be more lax in this area. Therefore the goal of this initiative is to increase cHIE access monitoring for authorized users of the smaller clinics to build trust that use of HIT and redesigned care processes to improve care and patient outcomes.

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- Providers will also need assistance in using their systems to measure their care and integrate population-based healthcare processes within their own clinics to provide preventive care.

The goal of access monitoring is to detect inappropriate access. While many people believe that the most common kind of inappropriate access is from outside ‘hackers’ or stolen laptops, in truth, the most common form of inappropriate access comes from inside the organization. The most common kind of inappropriate access is from inside ‘hackers’ or stolen laptops, in truth, the most common form of inappropriate access comes from inside the organization. The most common kind of inappropriate access is from inside ‘hackers’ or stolen laptops, in truth, the most common form of inappropriate access comes from inside the organization. The most common kind of inappropriate access is from inside ‘hackers’ or stolen laptops, in truth, the most common form of inappropriate access comes from inside the organization.
of inappropriate access is from legitimate authorized users: employees who are curious about the health status of a celebrity, relative or friend; employees who may be angry with their employer and seek to do some kind of harm; employees who seek financial rewards and sell data, etc.

There are many technical tools and procedures to detect and stop access by outside entities: Utah Health Information Network (UHIN) deploys these tools – including complete encryption of the data above federal encryption standards, constant monitoring for malware and known malicious web sites, penetration testing, software vulnerability testing, etc. UHIN undergoes rigorous bi-annual independent auditing every other year to ensure that its arsenal for defending the cHIE from outside attack stays current and potent.

However, detecting and stopping inappropriate access from a legitimate authorized user is much more difficult and must be approached thoughtfully. Legal concerns that a treatment relationship may not exist must be balanced against the risk that denying access could result in harm to the patient, even death. This is not a simple calculation and it is an area that the healthcare industry as a whole is still working to improve. For all cHIE authorized healthcare providers, they must attest that they have a treatment relationship with the patient whose data they are requesting access. This is a much more rigorous – and auditable – method of exchanging PHI than the current phone/fax/letter system that is commonly used.

Legally, clinicians may access data on patients with whom they have a treatment relationship. On the surface, it appears to be simple to establish that fact: has the clinician had an office visit with the patient? However, even a cursory examination of the healthcare system will quickly turn up common situations where no office visit has occurred, yet the clinician still has a legitimate reason to access the patient’s data: emergency care, new patients who schedule and then don’t show up for their first appointment, a patient where the primary care provider is consulting with a specialist, etc. Providing healthcare is an activity that is fraught with complexity.

Robust access monitoring systems are designed to manage this complexity without undue denial of access. Because of the complexity, the systems that monitor access must deploy a myriad of strategies to achieve the appropriate balance between actively working to stop inappropriate access and not doing harm by denying access when the request is legitimate.

For the large entities who have adopted this active approach to access monitoring, UHIN will continue to give them logs of their personnel who have accessed data on the cHIE. They will deploy their existing (and constantly improving) access monitoring strategies incorporating our data. However, for the smaller entities, it is necessary that a person quickly follow up on suspicious access. Therefore, we have requested sufficient staff to accomplish active follow up procedures.

Access monitoring is supported by many elements of HIPAA including 45 CFR §§ 164.312(a)(2)(iv) which requires the authentication of authorized users, the requirement to implement audit logs, access reports and security incident tracking reports (45 CFR §§ 164.308(a)(1)(D)(D)), and role-based access procedures (45 CFR §§ 164.310(a)(2)(iii)) amongst other legal requirements.

The primary impact of this initiative is build trust amongst the Utah community that the cHIE is used appropriately by its authorized users. The ability to exchange PHI appropriately, to track a patient’s healthcare journey across systems, is a critical infrastructure component to any value-based system. People must trust that this system is secure, that the information is being shared appropriately and that abuse of the system can be quickly identified and appropriately managed.

The access monitoring system discussed above is primarily a technical solution to a problem that is human in origin: authorized users may abuse their access either deliberately or through ignorance of their responsibilities. Therefore, it is crucial that any technical solution be paired with privacy and security training and testing procedure that all authorized users are subject to. The goal of this privacy and security training and testing is to make authorized users aware of their legal responsibilities when they use the cHIE.

The larger healthcare systems already deploy active privacy and security training and testing of their employees. Typically however, smaller healthcare providers may fall short. An on-line training program will be created. Authorized users will be required to take this training (as per HIPAA requirements) and then to pass an on-line test to be re-authorized to use the cHIE.

BACKGROUND: HIPAA 45 CFR §§ 164.308(a)(5)(i)) requires privacy and security training for all employees. The goal of the proposed training is to train authorized users annually on their legal responsibilities regarding privacy and security when they access data on the cHIE. The follow up training will be used to ensure that the training has been effective. As mentioned above, the larger systems have such training and testing in place already. When appropriate, a larger system’s training and testing will be held to be equivalent and therefore the employees of those systems will not be required to go through the specific cHIE privacy and security training and testing. Healthcare systems/providers that do not have equivalent training and testing in place will be required to go through this process prior to being granted the status of authorized user and given security privileges appropriate to their role.

HIPAA 45 CFR §§ 164.308(a)(5)(i)) requires privacy and security training for all employees. UHIN conducts this training annually for all of its employees. However the vast majority of cHIE authorized users are not employees of UHIN. Therefore, this requirement is added to build trust that there is a level of understanding and consequences for all cHIE authorized users.

The primary impact of this initiative is build trust amongst the Utah community that the cHIE is used appropriately by its authorized users. The ability to exchange PHI appropriately, to track a patient’s healthcare journey across systems, is a critical infrastructure component to any value-based system. People must trust that this system is secure, that the information is being shared appropriately and that abuse of the system can be quickly identified and appropriately managed.

EXP OUT: 1.2.1 Increased security of data in key HIT enabled tools

OUT MEAS: 1.2.1 100% of cHIE, ePOLST, APCD and other HIT enabled tool access is effectively monitored and access is appropriately managed so that the risk of inappropriate access is minimized

1.2.2 Key HIT enabled tools validate that 100% of users have completed appropriate security training

SUBAIM: 1.3 To have 80 percent of Utah’s covered lives involved in a Value-Based Purchasing (VBP) plan

INTERV: 1.3.1 Convene a group to formulate a set of outcome metrics that can be used to determine value in health care (value = quality/cost), which can be measured by data collected from payers or providers
Rationale
Currently, payers in Utah are developing many different versions of VBP. In an innovation environment, multiple options are crucial. However, being able to judge the quality of the option against the cost is core to a Value-Based Purchasing environment. In the process of learning about and documenting current efforts, we discovered a consistent theme - providers, especially physicians who work in clinics, are inundated with requests for quality metrics that are quite often viewed as inconsistent, irrelevant, and occasionally counter-productive or even conflicting with each other. Stakeholders from both the provider and payer communities were very clear that we need to align our efforts to measure quality. We need to do this so we can send a consistent message to providers about what we actually value in terms of the contracting arrangements.

Utah Medicaid has worked with its managed care plans to develop Utah Medicaid Accountable Care Organizations (ACOs) that receive capitated payments for covering enrollees each month. Over the last year, Utah Medicaid has met with the ACOs and interested stakeholders to develop quality measures that will be included in the ACO contracts. We believe the process and measures from the Utah Medicaid ACO quality effort will help serve as a basis for work that will be done under the Plan.

EXP OUT: 1.3.1 A set of relevant metrics that can be used to measure quality in light of cost

OUT MEAS: 1.3.1 Percent of standardized value metrics and cost per case reimbursement

INTERV: 1.3.2 Establish a test comparing VBP systems by recruiting at least three groups of payers and/or providers using different VBP systems

Rationale
As mentioned previously, there are several efforts to implement VBP in Utah. However, there is no real agreement by the many stakeholders as to which approach(es) are most likely to impact the system. In addition, it is very difficult to create small-scale pilots that we would feel confident accurately represent a microcosm (or laboratory) of entire sections of the health care field.

With this in mind, the Plan will pursue an approach that will allow these existing VBP efforts to progress and then use research techniques to identify what features or factors the most successful plans have in common. In addition, the research approach may also be able to identify which features or factors work better in different environments. This process of allowing existing VBP efforts to progress is consistent with the Governor’s general philosophy that private innovations should be encouraged and that they are more likely to be successful than government-created solutions. The current regulatory environment does not need to be modified to allow this approach to move forward.

EXP OUT: 1.3.2 Several VBP systems that can be compared for effectiveness

OUT MEAS: 1.3.2 A statistical analysis of various VBR approaches that shows the relative effectiveness of various features and components in different health system environments

INTERV: 1.3.3 Accelerate VBP efforts through the use of the APCD

Rationale
Utah has a significant number of small independent clinics that provide care to patients. Traditionally, it has been difficult for these clinics to benefit from VBP contracts because they lack the resources and ability to internally monitor their progress in meeting the terms and goals of typical VBP contracts. Furthermore, these small clinics often receive payment from a large number of payers which compounds the problem when each payer specifies different value or quality goals as the basis for contracting.

In our initial discussions, our stakeholders heavily encouraged us to find a way to make it easier for these small independent clinics to participate and benefit from VBP contracting. The first step in that direction is to align the value metrics to a standard set. The second step in this process is to provide technical assistance to the small

an APCD. This database represents a central repository for adjudicated claims from private commercial, public, and self-funded health plans. This data source is becoming the main source for efforts to measure cost and quality in the State when data from multiple payers is required.

A common concern in VBP contracts is that any contract between a payer and provider is necessarily limited to measuring the patients covered under the arrangement since it is generally difficult to find ways to aggregate data on a specific patient across providers or for a specific provider across payers.

The APCD can be used to address both of these issues. It can serve as the source of information for creating most, if not all, global value measures, because it is the only place where providers and payers can be measured in terms of cost or quality across their entire membership or scope of practice.

The Cost and Quality Data Project (House Bill 9), passed by the Utah Legislature in 2007, directed the Utah Health Data Committee (HDC) to create an advisory panel to study the development of an APCD to assist in the analysis of health care data in Utah. The HDC unanimously approved a plan outlining the creation of an APCD in June 2008. Funding for the APCD was provided via House Bill 133, Health Care Reform (2008).

The APCD is currently working with the Utah Insurance Department on technical improvements in order to conduct risk adjustment and rate review. As part of this partnership, the APCD receives federal grant funding under the Grants to States to Support Health Insurance Rate Review and Increase Transparency in Health Care Pricing, Cycle III of the Rate Review Grant Program.

EXP OUT: 1.3.3 Acceleration in the implementation of and increased quality in VBP arrangements

OUT MEAS: 1.3.3 Percentage and quality of VBP implementations by private and public (Medicaid, CHIP, etc.) systems

INTERV: 1.3.4 Provide technical support to individuals, small business and public health to ensure ability to utilize VBP data and to ensure that new care coordination, case management and care transitions codes are fully utilized
clinics to help them understand how to benefit from these arrangements, modify their practice business model and ultimately provide higher value care. Some pilot work has been done in this area under the Beacon Community Grant that will help us understand what types and forms of technical assistance are most valuable.

**EXP OUT:** 1.3.4 Improved providers’ public health reporting and management systems

**OUT MEAS:** 1.3.4 Number and quality of VBP arrangements between public health and reporting entities

**SUBAIM:** 1.4 Align supply/demand workforce projection methodologies with a value-based purchasing environment

**INTERV:** 1.4.1 Expand surveillance to include Primary & Behavioral Health providers working in team and Value-Based Purchasing environment

**Rationale**
Utah ranks among the highest quality, lowest cost states for health care, meaning that Utah gets great value for its health care dollar. However, Utah has only approximately 178 patient care physicians per 100,000 people, which is 40% below the recommended ratio. Twenty-three of 29 counties in Utah have some form of Primary Care Health Professional Shortage Area (HPSA) designation and twenty-six of the 29 counties experience Mental Health Professional shortages according to national standards (see following maps). This situation of high value care but below average supply of key providers creates a healthcare paradox for Utah. In consideration of this paradox and a changing healthcare environment, the real question of “provider mix, configuration and preparation” becomes critical and Utah will need to find a way to deliver services differently. This may include the use of technological bridges to underserved areas. Practice redesign which incorporates alternative provider types (advance practice, mental health/substance abuse, care managers, etc.) is also crucial. Secondly, these new provider configurations must be adequately prepared for a value-based purchasing future. Understanding and applying concepts of risk stratification, population management, behavioral health, technological delivery models and care management are necessary for the effective practice of these newly configured primary/behavioral health care teams.

As the health care marketplace is transformed from fee-for-service and volume-based care to value and outcome-based care, workforce assessment methodologies need to change as well. Siloed analyses of discipline specific requirements, statewide projections and national statistics do not adequately address the workforce distribution within a state like Utah (which has urban, rural and frontier service areas). Nor does this historical approach balance the supply side of the equation with population demands and needs. In Utah, health care workforce projections are determined through a number of sophisticated approaches including: 1) the use of survey methodologies conducted by the UMEC and the UDOH/Bureau of Primary Care/Office of Primary Care and Rural Health; 2) the use of current vacancy listings managed through the Department of Workforce Services; and 3) the number of currently licensed professionals maintained by the Department of Commerce, Division of Occupational and Professional Licensure. Relationships have been forged with various players in order to integrate assessment methodologies into a more robust and responsive workforce surveillance system. The methodology remains incomplete however and changes need to be made. Incorporating projections on the number of behavioral health providers as well as the educational pipeline will greatly strengthen the Utah model. Additionally, adding the demand side for care in terms of population stratification will greatly enhance the mapping of workforce supply projections to population need.

**EXP OUT:** 1.4.1 Increase in value driven integrated care and reimbursement

**OUT MEAS:** 1.4.1 Estimates of the need for behavioral health in integrated care

**INTERV:** 1.4.2 Incorporate population needs and outcomes into the supply model of providers in a value-based purchasing environment

**Rationale**
In Utah, health care workforce projections are determined through a number of sophisticated approaches including: 1) the use of survey methodologies conducted by the Utah Medical Education Council (UMEC) and the UDOH/Bureau of Primary Care/Office of Primary Care and Rural Health; 2) the use of current vacancy listings managed through the Department of Workforce Services; and 3) the number of currently licensed professionals maintained by the Department of Commerce, Division of Occupational and Professional Licensure. Relation-
ships have been forged with various players in order to integrate assessment methodologies into a more robust and responsive workforce surveillance system. The methodology remains incomplete however. Incorporation of behavioral health providers as well as the educational pipeline will greatly strengthen the Utah model. Additionally, adding the demand side for care in terms of population stratification will greatly enhance the mapping of workforce supply projections to population need.

**EXP OUT: 1.4.2 Increase in value driven integrated care and reimbursement**

**OUT MEAS: 1.4.2 Utilization of EMS, ED. Inpatient hospitalization for behavioral health needs**

**SUBAIM: 1.5 Prepare/train providers to perform in a value-based purchasing and environment**

**INTERV: 1.5.1 Expand Utah Cluster Acceleration Partnership**

**Rationale**

In the wake of health care reform, there is an urgent need for a critical analysis of how anticipated financing and delivery changes will affect both the demand for primary care providers (medical, nursing, dental and mental health) and their ability to deliver and provide optimum patient care. Training healthcare workers at all levels is essential in creating newly designed value-based delivery configurations that can function cost effectively and with high quality. Healthcare reform has resulted in complex challenges to improve efficiency, reconfigure health care delivery systems, and make better use of both physicians and other health care professionals. As team-based approach to care becomes the norm, primary care providers are setting up teams of non-physician providers to support and enhance patient care, and utilizing staff at the top of their license. This change will increase the need for non-physician providers and support staff that are highly competent and trained who can deliver quality care at reduced cost.

A Utah based approach in addressing the need for an educated and trained workforce is the Utah Cluster Acceleration Partnership (UCAP) grant initiative. UCAP is a collaborative partnership between three agencies, the Utah System of Higher Education (USHE), Utah’s Department of Workforce Services (DWS), and the Governor’s Office of Economic Development (GOED). The UCAP Oversight Committee/ Governing Board is comprised of the executive director for each of the 3 agencies and oversees the funding and operations of the UCAP initiative. USHE is the managing agency. UCAP grants are funded for a one-year period.

The UCAP initiative is designed to capitalize on the position and contribution that institutions of higher education can make to the overall economic development of both their respective regions and the Utah state economy as a whole in accelerating the growth and capacity of key industry clusters by addressing the need for talent. Health care has been identified as one such key cluster.

Two UCAP health care projects that have been identified both address the need for non-physician providers and trained support staff, nursing and medical assisting. The UCAP nursing project has 3 areas of focus, (1) nursing care management, (2) nursing transition to practice/residency programs, and (3) clinical innovations (placement, supervision, and use of simulation). The medical assistant (MA) project has 3 goals, (1) to define the scope-of-practice, (2) to work with MA programs in Utah to build the scope-of-practice into their curriculum, and (3) encourage and support Medical Assistant program faculty to seek accreditation. The MA program goals can be incorporated into other non-professional provider support training programs such as Community Health Workers and Behavioral Health peer support counselors.

**EXP OUT: 1.5.1 Increase in value-based trained providers delivering better health and better care**

**OUT MEAS: 1.5.1 Access to primary care providers (PCP)/ teams with whom patients can communicate and trust to provide integrated care**

**INTERV: 1.5.2 Provide training to existing practitioners on value-based clinical practice**

**Rationale**

The intent of this plan is to assist the provider community is adapting and performing well in a VBP environment. Such an environment has multiple characteristics of practice delivery that may be new to current practitioners. Practicing well in a VBP environment requires such skills as care coordination and coaching, care management, population management, use of information technology, motivational interviewing, behavioral health screening, collecting and reporting quality metrics, providing medical homes for geriatric populations, the chronically ill or those with complex medical conditions, and team collaboration.

Care managed patients show improved adherence to disease guidelines, particularly patients with diabetes and depression. The probability of hospital admission can be reduced (24-40 %) in patients with complex chronic illness assigned to a care manager. Death is reduced for patients with complex illness by over 20%. Physicians are able to create a more efficient practice through better use of documentation, a slight increase in patient visits, and a change in practice pattern.

The growing number of people with complex chronic disease presents our current primary care system with a challenge: How to deliver quality care efficiently. Skilled healthcare providers using adaptable information technology tools can contribute significantly to the efficiency of clinical practice by motivating and teaching patients methods of self-care which facilitate meeting health-related goals. Over time, care managed patients show different emergency department and hospital utilization patterns, extending this efficiency to the broader healthcare delivery system. In addition, increased productivity in clinical practice contributes to efficient delivery of patient care.

**EXP OUT: 1.5.1 Increase in value-based trained providers delivering better health and healthcare**

**OUT MEAS: 1.5.2 Decreased number of ED visits with characterization of ambulatory care sensitive condition appropriateness**

**INTERV: 1.5.3 Decrease inappropriate use of hospital resources through education of providers and patients about choosing healthcare interventions wisely**

**Rationale**

Communication skills can and should be used to help promote value-based use of health care resources. Patients need better information about what care they truly need and physicians need to feel comfortable in communicating to patients and families about evidence based use of resources. The “Choosing Wisely” campaign (http://www.choosingwisely.org/) has sparked discussion about the need (or lack of need) for frequently ordered tests and treatment. It is estimated that as much as 30% of care is duplicative or unnecessary
and that the care frequently does not improve or can even harm people’s health. Therefore, it is imperative that physicians and patients work together to discuss wise treatment decision-making and choose care that is supported by evidence, is non-duplicative, won’t cause harm, and is truly necessary. We consider any unnecessary use of care to be an adverse event and it has been shown that over-testing can lead to unimproved or even worse outcomes.

This initiative focuses on Utah’s strong commitment to value in healthcare. It was chosen to help better use the resources available to the state and in keeping with the aim to shift 80% of Utah’s covered lives to value-based care. This initiative should help with issues related to payment reform and on health and wellness of the population, by helping healthcare consumers become more aware of their choices and by creating a shared-decision making model for care received within the state of Utah.

Health Insight is working on a Choosing Wisely campaign to disseminate recommendations through a provider and consumer targeted website, use of telehealth and webinars to reach remote practitioners and conducting baseline and follow-up phone surveys of public knowledge of Choosing Wisely (www.utahhealthscape.org). We designed this initiative to be complementary to the Health Insight initiative and build on the work that is being done there.

**Rationale**

As a direct result of the 2011 Governor’s Health Summit, Lieutenant Governor Bell began meeting with a group of stakeholders to identify ways to improve our state’s medical liability system. Development of a Disclosure and Resolution Program (DRP), which seeks to enhance communication with patients following unanticipated outcomes, will improve collaboration among health organizations to identify the appropriate resolution system that will also improve quality.

Since 1999, there have been over 1,000 publications in PubMed alone regarding medical error disclosure. In addition, the implications of these errors, including significant patient morbidity and mortality, have been noted by consumers of health care, health care providers, and the general public. In general, patients and the families of patients want to be informed that an adverse event or medical error has occurred, regardless of severity. It seems that if disclosure of medical error is made with compassion, in a timely manner, and with good communication skills both during and after the disclosure process, patients and their families are at least no more likely to seek legal action and some lawsuits may actually be avoided.

Policies and procedures exist to safeguard patients and protect them from harm; however, a deeper understanding as to why a particular event occurred and less focus on the individual who made the error can have positive outcomes. In a 2005 publication, Milstead presents three examples that demonstrate a needed paradigm shift for the treatment of adverse events. The author contends that it is the system that must be recognized as the problem. She argues that reprimanding the person who committed an error is not a solution. In order to achieve improvement in outcomes, a mechanism to address system errors must be created.

The Institute of Medicine (IOM) has estimated that adverse medical events associated with preventable medical errors result in 44,000 to 98,000 deaths annually in the United States, and annual costs associated with these errors in lost income, disability, and health care expenditures may be as much as $292 billion. Such adverse events also result in pain and anxiety in patients and family members, reduce confidence in the medical system, and threaten physician-patient relationships. Recently, the IOM reported that unnecessary and inefficiently delivered services on the part of physicians, hospitals, and other providers account for a large portion of the $750 billion in health care expenditures wasted annually in the United States.

The Lieutenant Governor tasked us with creating a SIM plan in order to address disclosure and resolution as an effort toward tort reform. Disclosure and resolution is closely tied with patient safety. The increased transparency, remediation, and root cause analyses will lead to improvements with the planned patient safety initiatives. Primary Children’s Hospital has a Disclosure and Resolution program on which we based this intervention. Through this plan, elements of the Primary Children’s Hospital program will be disseminated statewide. UDOH will be working with the Utah Medical Association, Utah Medical Insurance Association, Health Insight and other key stakeholders to implement this project.

**EXP OUT: 1.5.1 Increase in value-based trained providers delivering better health and better care**

**OUT MEAS: 1.5.3 Use of radiographic imaging for pediatric head trauma age 2-12 in emergency departments (ED)**

**1.5.4 Use of radiographic imaging for low back pain in first 6 weeks of pain**

**1.5.5 Use of routine labs in ED and inpatient**

**INTERV: 1.5.4 Teach providers on how to have crucial conversations around disclosure and resolutions**

**Rationale**

During stakeholder engagement, it was determined that there are many safety and quality initiatives throughout the state that have had a strong start, but then devolved as leadership shifted and changed. By creating strong leadership from both within institutions and with the collaborative, we will continue to reinforce a culture of safety and value and to create connections between healthcare providers, systems and other groups that were not previously connected. We also continue to make efforts to coordinate with existing communication training initiatives so that there is no duplication of efforts. The focus will be on developing leadership from within physician groups, medical directors, risk managers, liability insurers, existing patient safety organizations, and existing practitioner communication groups.

UDOH has had an ongoing patient safety program and they identified this need. This effort has been led by public health and risk management but without medical providers at the table. Leadership issues are closely tied to a culture of patient safety and of open communication. This initiative will bring the Utah Medical Association and Insurance Association together for the first time with UDOH.
A primary goal of advance care planning is to ensure that treatments are consistent with patient preferences near the end-of-life. Advance directives have been promoted as an important advance care-planning tool that enables individuals to record their preferences to guide treatment decisions in the event of incapacity. Advance directives are generally ineffective at ensuring that treatment preferences are honored because of numerous limitations. The Physician Order of Life Sustaining Treatment (POLST) is designed to help ensure that patients’ preferences for a range of treatments are honored by documenting preferences in the form of standardized medical orders that transfer with them throughout the healthcare system.

The use of the Physician Order of Life Sustaining Treatment (POLST) is not a new approach of improving the end-of-life care decisions. A POLST is a standardized form that records the wishes of a patient and directs a healthcare provider regarding provisions of resuscitation and life-sustaining treatment. The benefit to having clearly documented orders, such as the POLST, is particularly important during emergency situations. The POLST form is signed by the patient and the physician and becomes a set of medical records. The POLST form then transfers across treatment settings, so it is available to an array of healthcare professionals (EMTs, nursing home staff, physicians, and hospitals, etc.).

The primary impact of this initiative is to provide a valuable form of patient engagement in the context of End-of-life care. The primary purpose of patient engagement is to ensure that at the End-of-life, patient wishes are known and followed. The POLST will be a part of the UDOH initiative and will make use of an HIT enabled infrastructure to track a patient’s End-of-life wishes. The POLST is also aimed towards providing a robust and secure system for better quality healthcare.

EXP OUT: 2.1.1 Improved awareness and process to make end-of-life preferences known to providers

OUT MEAS: 2.1.1 Percentage of SNF and Hospice providers using the electronic Physician Orders for Life-Sustaining Treatment (ePOLST) for end-of-life wishes (POLST in ePOLST)

2.1.2 Percentage of targeted population with their Physician Orders for Life-Sustaining Treatment (POLST) documented in electronic Physician Orders for Life-Sustaining Treatment (ePOLST)

INTERV: 2.1.2 Teach providers how to have crucial conversations around end of life, POLST, advanced directives

Rationale

The last year of life accounts for 27% of all Medicare expenditures. Discussions of end of life care allow for improved coordination of care, better execution of patient wishes, and lower likelihood of futile or undesired interventions. Less than 50% of severely or terminally ill patients have an advanced directive. A 2010 study found that only 15-22% of seriously ill elderly patients had their wishes in the medical record. According to dying patients and their families, lack of communication with physicians and other health care providers leads to confusion about possible treatments, conditions and prognoses as well as the choices that patients and families need to make. Advanced care planning and directives lead to increased patient satisfaction. Patients report less fear and anxiety, more ability to influence and direct their care, a belief that physicians had a better understanding of their wishes, and greater understanding and comfort than before the discussion.

EXP OUT: 2.1.3 Improved awareness and process of patient expression of End-of-life preferences

OUT MEAS: 2.1.3 Number/percentage of inpatients with DNRs, POLSTs and advanced directives

2.1.4 Number of inpatient and primary care providers having conversations about advanced directives, DNRs, POLSTs

INTERV: 2.1.3 Engage the community (including churches, faith-based organizations, educational systems, legal institutions, and Utah Commission on Aging in End-of-life conversations
Rationale
End-of-life conversations take place within multiple contexts and with multiple participants. There is current pressure for the healthcare sector to initiate and document End-of-life conversations often at the most inopportune times. These times are often when a patient is quite ill, under serious pressure to make a decision about preferences, entering a long term care facility, or when in pain. The ideal timing for End-of-life decisions is prior to any health crises and requires reflection, consideration, estate planning, legal consultation and in-depth understanding of both the options and subsequent implications of End-of-life choices. In order to improve End-of-life preferences and the documentation of those preferences the community at large must be educated and engaged in understanding the choices and the implications of those choices. Such engagement will need a variety of educational tools, outreach activities, and community based conversation sponsored by community members.

EXP OUT: 2.1.3 Improved understanding of end-of-life options and declaration of preferences via advanced directives and ePOLST documentation

OUT MEAS: 2.1.5 Percentage of Utah adults that have documented end-of-life preferences through ePOLST

AIM 3: To Increase Access to Primary Care And Behavioral Health

SUBAIM: 3.1 To improve healthcare value (cost and quality) by increasing appropriate access to primary and behavioral healthcare in underserved areas by 30%

INTERV: 3.1.1 Integrate mental, emotional, and behavioral (MEB) health screenings and interventions using interdisciplinary teams using Screening, Brief Intervention, Referral to Treatment (SBIRT)

Rationale
A national report reveals that 45.9 million American adults aged 18 or older, or 20 percent of this age group, experienced mental illness in the past year. The rate of mental illness was more than twice as high among those aged 18 to 25 (29.9 percent) than among those aged 50 and older (14.3 percent). Adult women were also more likely than men to have experienced mental illness in the past year (23 percent versus 16.8 percent). Mental illness among adults aged 18 or older is defined as having had a diagnosable mental, behavioral, or emotional disorder (excluding developmental and substance use disorders) in the past year, based on criteria specified in the Diagnostic and Statistical Manual of Mental Disorders 49. The Substance Abuse and Mental Health Services Administration’s (SAMHSA) National Survey on Drug Use and Health also shows that 11.4 million adults (5 percent of the adult population) suffered from serious mental illness in the past year. Serious mental illness is defined as one that resulted in serious functional impairment, which substantially interfered with or limited one or more major life activities. The economic impact of mental illness in the past year. Serious mental illness among adults aged 18 or older is defined as having had a diagnosable mental, behavioral, or emotional disorder (excluding developmental and substance use disorders) in the past year, based on criteria specified in the Diagnostic and Statistical Manual of Mental Disorders 49.

The Substance Abuse and Mental Health Services Administration’s (SAMHSA) National Survey on Drug Use and Health also shows that 11.4 million adults (5 percent of the adult population) suffered from serious mental illness in the past year. Serious mental illness is defined as one that resulted in serious functional impairment, which substantially interfered with or limited one or more major life activities. The economic impact of mental illness in the United States is considerable—about $300 billion in 2002. According to the World Health Organization, mental illness accounts for more disability in developed countries than any other group of illnesses, with 6% in 2000 to 12% in 2011. This same pattern is evident in hospital admissions as well increasing from 4% in 2000 to over 6% in 2011. Simultaneously Utah saw an 11.4% decrease in mental health expenditures between 2009 and 2011 and received a rating of D from National Association of Mental Illness (NAMI) in 2009. From 2009 to 2011 there was a decrease of $10.4 million dollars of state mental health expenditures while $46 million dollars were spend in the ER for Mental Health and Substance Abuse treat and release (Ambulatory Care Sensitive ASC) conditions.

Figure 28. ED Encounters for Mental Health/Alcohol Diagnoses as Percentage of all ED Encounters (1990-2011)
Substance use disorder results in a significant economic cost to individuals, families, and society at large. It has been estimated that $484 billion is spent each year on substance use disorder related costs including treatment and prevention, health care expenditures, lost wages, reduced job production, accidents, and crime, with over 60% of these costs linked to drug-related incidents. Specifically, over $60 billion is spent on the purchase of drugs annually, with $10 billion on heroin, $35.2 billion on cocaine, $10.5 billion on marijuana, $15 billion on prescription drugs, and $5 billion on other illegal drugs. Moreover, in 2001 there were an estimated 638,484 drug-related emergency room episodes and drug-related deaths reached 19,698 in 2000, up from 16,926 just two years before. Aside from the troubling public cost statistics, SUDs are associated with engagement in multiple health-compromising behaviors (e.g., condom non-use, multiple partners, impulsive spending) and subsequent physical, social, and emotional consequences.

In terms of treatment statistics, the report indicates that about 4 in 10 people experiencing any mental illness in the past year (39.2 percent) received mental health services during that period. Among those experiencing serious mental illness the rate of treatment was notably higher (60.8 percent). The report also noted that an estimated 8.7 million American adults had serious thoughts of suicide in the past year – among them 2.5 million made suicide plans and 1.1 million attempted suicides.

A Recovery Oriented System of Care (ROSC) is a coordinated network of community-based services and supports that is person-centered and builds on the strengths and resilience of individuals, families, and communities to achieve abstinence and improved health, wellness, and quality of life for those with or at risk of alcohol and drug problems. ROSC provides a network of services and supports to address the full spectrum of substance use problems, from harmful use to chronic conditions. Through education, communities are strengthened by recovery-oriented activities that can prevent inappropriate substance use before it occurs. Education also raises awareness about the disease, dispels myths that foster stigma and discrimination, and provides early intervention for those at risk of developing substance use conditions.

Like other chronic health conditions, substance use disorders typically require long-term involvement with the health care system and parallel informal networks including Substance Abuse Disorder Counselors (SUDC) and Licensed Mental Health Providers (LMHP). Recovery-oriented services and supports include provision of continuing care following treatment, education regarding self-care, regular check-ups and linkage to community resources. Recovery support services, including employment assistance, child care, care management and housing support, enhance the engagement of individuals and their families in achieving and sustaining recovery. Additional efforts will be made to link with criminal justice advisory initiatives in creating integrated justice information systems for follow-up and integrated care across the continuum of care.

The prevalence of mental disorders in children and adolescents is high; one in four to five adolescents in the general population experience disorders that result in severe impairment. It is well established that there is an insufficient number of child and adolescent psychiatrists and other pediatric mental health providers to provide mental health treatment for all children who need it. Currently, most children with a mental illness do not receive any treatment, and most in the general population who do receive treatment are treated by primary care providers. Providing mental health treatment in primary care has been shown to decrease stigmatization, and has also been associated with enhanced clinical outcomes and higher patient satisfaction. Pediatricians and other pediatric primary care providers are well situated to provide mental health treatment to their patients, but often suffer from a lack of access to mental health specialists and limited training in mental health issues during residency. As a result, these providers often lack confidence in diagnosing and treating mental disorders within primary care settings. For these reasons, a growing number of collaborative care models across the nation have examined how to best treat mental illness within primary care by increasing consultation services with psychiatrists and other mental health professionals.

Utah is no exception in the limited access to mental health care for children. Members of the local chapter of the American Academy of Child and Adolescent Psychiatry were surveyed and of the 53 surveys that were
sent out (which represented the number of active attending child psychiatrists in the state of Utah), 21 surveys (39.6%) were returned. Of those 21 psychiatrists, 14 (26% of child psychiatrists in Utah) indicated that they were accepting new adolescent outpatients, although 3 of them only accepted special populations. The average wait time, for a new evaluation appointment was 44.8 days. The admission rates for children (15 yrs. or less) to hospitals with mental health or alcohol/drug diagnoses as a percentage of all children admissions reached a low of 6% in the late nineties down from over 10% in the mid-nineties, but has seen a steady increase over the last decade to over 8.5% in 2011.

When looking at children under the ages of 15 or younger, the percentage of hospital discharges has been steadily increasing since 2003. This indicates additional need for psychiatric behavioral health services to our most vulnerable populations.

Working to address limited access to psychiatrists a pilot was launched to improve access to pediatric mental health services in Utah. This early pilot project is known as GATE Utah, Giving Access to Everyone, a novel, web-based consultation model. Their goals are to improve access to mental health services for children and adults, improve collaboration between primary care physicians and mental health professionals, and enhance knowledge of how to manage mental health conditions in the primary care setting. As opposed to the traditional psychiatric clinic, GATE Utah believes they can influence the greatest number of people with the GATE Utah system by providing high quality care to families and children, while at the same time lowering costs and maintaining the majority of the treatment in the medical home.

EXP OUT: 3.1.1 Improved quality and lower cost therefore improved value

OUT MEAS: 3.1.4 Screenings in children aged 8-18 for Substance Abuse (SA)

AIM 4: To Create Community-Clinical Linkages and Healthful Environments

SUBAIM: 4.1 Increase the proportion of health plans and organizations that engage community health workers (CHW)

INTERV: 4.1.1 Determine and establish payer commitment to the value of CHW in a VBP and reimbursement environment

Rationale
Determination of payer commitment to the CHW project is essential in order to establish baseline interest, knowledge and use of CHWs. Once a baseline of commitment is established, the business case can be made to health systems and organizations on how use of CHWs can lead to better care and better health. Optimal use of CHWs within health systems and plans would result in improved access to primary care, clinical preventive services, chronic disease management resources, and community-based resources that promote health, such as tobacco quit lines, walking trails, weight loss programs, among others.

A coalition has been convened to look at issues related to community health workers. The coalition hopes to form a formal Community Health Worker Association, and plans to consider financial sustainability and standardized training for community health workers. The coalition includes diverse representation from a number of sectors, including state and local governments, payers, non-profit organizations, and others.

EXP OUT: 4.1.1 Established baseline inventory of payer commitment

4.1.2 CHWs are reimbursed by health systems and organizations thus creating a sustainable funding model for CHW efforts

OUT MEAS: 4.1.1 Number of patients with improved control of chronic conditions and related risk factors

4.1.2 ROI of using CHWs to care for patients with chronic conditions and related risk factors

INTERV: 4.1.2 Enhance CHW relationships and connections within communities and clinical arenas

Rationale
Currently CHWs are used by a limited number of organizations to connect patients with services in the community in which the patient resides. Identifying and creating new community clinical linkages allows CHWs to help patients access more resources to improve their health. If patients are able to change health behaviors with the help of CHWs (e.g., getting regular exercise, nutritious eating, and not using tobacco products) then they will be able to prevent and/or control chronic conditions which could lead to lower health care costs. Additionally, a number of efforts are underway within Medicaid and other health systems to improve appropriate use of emergency and preventive services.

EXP OUT: 4.1.3 Community clinical linkages support CHWs in helping patients access resources to improve their health

OUT MEAS: 4.1.3 Number of patients appropriately accessing emergency and preventive services

INTERV: 4.1.3 Implement state-wide CHW training curriculum and registration process

Rationale
The development of a standardized, statewide training curriculum and registration process is critical in order to ensure a group of competent CHWs are available that health systems and organizations can employ. The standardized statewide training curriculum and registration process will help assure health systems and organizations are comfortable with the training level of individual CHWs which will allow them to incorporate CHWs into their system/organization care models, thereby leading to better patient health care and better health through prevention and management of chronic conditions. The presence of a standardized training and registration process could influence payer willingness to reimburse CHWs.

EXP OUT: 4.1.4 CHWs have received standardized training that leads to competent care in a VBP environment

OUT MEAS: 4.1.4 Number of trained/registered CHWs

INTERV: 4.1.4 Implement CHW model in 4 population subsets and evaluate results

Rationale
Implementing the CHW model will allow for better health care and better patient health by supporting the pa-
tient to implement healthful behaviors (regular physical activity, nutritious eating, and not using tobacco products). The CHW model allows for patients to be supported in behavior change by trusted members of their local community. This model allows for culturally appropriate, local patient support. Implementation of Intervention 4.1.1 could influence voluntary policy regarding reimbursement of CHW services among private and public payers. Reimbursement will optimize use of CHWs and ensure a sustainable model.

**EXP OUT: 4.1.5** Organizations have implemented environmental and policy changes in support of healthful behavior

**OUT MEAS: 4.1.5** Number of systems and organizations with a policy to allow for reimbursement of CHW services

**EXP OUT: 4.1.6** Number of systems and organizations with CHWs integrated into care model

**SUBAIM: 4.2** Align all wellness efforts across public, private and non-profit sectors within at least one community around a common agenda to improve community health

**INTERV: 4.2.1** Determine methodology and select community

**Rationale**

Selection of the right community is critical to the success of Subaim 4.2. Intervention 4.2.1 addressed the steps required to identify a community that has health disparities which can be addressed and has the structure and political will to be able to make the necessary changes to ensure a successful outcome. A healthful community environment will allow residents to establish healthful behaviors (e.g., getting regular physical activity, nutritious eating, and not using tobacco products) which will lead to better health. The methodology that will be used to select the community will include a review of relevant data about health disparities statewide in order to identify communities with health needs. Following the data review, the criteria for determining the readiness and willingness to successfully implement this project is created. The potential communities are then engaged and the chosen community is identified.

Implementation of this aim will result in improved coordination of existing community-based prevention and health promotion efforts, resulting in an optimal use of resources, maximized efficiency, and decreased duplication of services. A wide range of efforts are under way in Utah communities to prevent disease and promote health. These efforts will be better coordinated around a common agenda within the selected community(ies).

**EXP OUT: 4.2.1** Multi sector partnership which reports to community on shared common goals

**OUT MEAS 4.2.1** Shared common agenda and measures exist

**INTERV: 4.2.2** Develop and recruit coalition from multiple sectors to create common goals to improve community health

**Rationale**

Creation of a local community coalition comprised of local organizations will ensure that the selected community takes ownership of the goals of subaim 4.2, namely to increase the health of their community and residents. The local community coalition serves as a venue for local leaders to champion subaim 4.2 activities and lead the community to implement interventions/best practices at the community, business, and individual levels. The coalition will create their own by-laws that will govern their interaction between and among partners and with the community at large. The coalition and partners will undergo training on how to effectively work together and with the community.

**EXP OUT: 4.2.2** A Community Health Assessment Index has been implemented in selected community

**OUT MEAS: 4.2.2** Number of organizations contributing data and sharing results on agreed upon schedule

**INTERV: 4.2.3** Implement interventions and evaluate outcomes to fulfill agreed upon goals

**Rationale**

In order to impact the health of the selected community, ongoing community health activities will be cataloged, gaps will be identified, and specific health interventions/best practices will be implemented to fill the gaps. There is a body of evidence in the literature which identifies validated health interventions as well as best practices that have been successful. The community’s agreed-upon common health agenda will drive the selection of the interventions/best practices to ensure community ownership. The goal is to implement health interventions/best practices that the community supports, thereby creating a healthier community and healthier residents. Community health activities could result in voluntary and mandatory policies at the state, local, or business level that help promote health and prevent disease. As examples, such policies could serve to increase access to healthy foods, increase access to opportunities to be physically active, and decrease access to unhealthy products such as tobacco.

**EXP OUT: 4.2.3** Mutually reinforcing, evidence based activities are aligned to a VBP environment to maximize community resources and services

**OUT MEAS: 4.1.3** Number and type of organizations aligned to implement evidence-based activities

**OUT MEAS: 4.1.4** Number and type of evidence-based activities happening in the community

**E. IMPLEMENTATION**

The following narrative lists the implementation activities for all aims and subaims. It also includes implementation costs, responsible parties, and timelines and locations for these activities. This section is organized in the following format:

- **INTERV=** Intervention
- **COST ESTIMATE**
- **IMPLEMENTATION**
  - RESPONSIBLE PARTIES
  - ACTIVITIES
  - TIMELINE
  - LOCATION
AIM 1: To Adapt and Perform Well In a VBP Environment (Value = Quality Outcomes/Cost).

**SUBAIM 1.1:** INCREASE UTAH STAKEHOLDER USE OF KEY HIT-ENABLED TOOLS BY 60% TO SUPPORT TIMELY AND ACCURATE INFORMATION FOR VALUE-BASED DELIVERY OF CARE AND PAYMENT REFORM.

**INTERV. 1.1.1:** Develop a Statewide-Master Person Index to track patient identity across diverse systems to enable efficient correlation of clinical data

**COST ESTIMATE:** $4.5M for three years

**IMPLEMENTATION**

**RESPONSIBLE PARTIES:** UDOH will coordinate the overall development of the sMPI. The Utah Digital Health Service Commission will advise UDOH to develop an administrative rule to regulate the sMPI governance and operation. The awarded non-profit organization will be responsible for implementing and operating the sMPI.

**ACTIVITIES:** Enhance and develop HIT enabled tools and assess the impact of these tools to support identity verification for persons in Utah for healthcare stakeholder organizations such as healthcare systems, providers, payers, health information exchanges, and public health who need this service.

**TIMELINE:** 1-Sep 2014 to 1-Sep 2017  
**LOCATION:** UDOH

**INTERV.1.1.2:** Provide the necessary infrastructure and support to Critical Access Hospitals, Long Term Care, Behavioral Health Providers to make Clinical Health Information Exchange (cHIE) a viable platform for reporting both individual provider quality metrics and as a platform for reporting community quality metric benchmarks.

**COST ESTIMATE:** $8,144,000 for three years Core funding is $709,000, technical assistance is $1,190,000, and quality metrics is $6,245,000.

**IMPLEMENTATION**

**RESPONSIBLE PARTIES:** HealthInsight, UDOH, and UHIN.

**ACTIVITIES:** A common underlying strategy of all VBP methods is that providers must do some form of quality reporting. VBP is defined as A system of reimbursement for healthcare based partially or completely on quality and other markers (use of Electronic Health Record, etc.) and not exclusively on unit or volume of care delivered, which is the fee-for-service model. The eHIE is a key component for this activity. EHR is a longitudinal electronic record of patient health information generated by one or more encounters in any care delivery setting. Included in this information are patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports. The EHR automates and streamlines the clinician’s workflow. This goal will provide the necessary infrastructure and support to make the eHIE a viable platform for reporting both individual providers’ quality metrics and, as a platform for reporting community quality metrics benchmarks. This intervention will support a robust system for analyzing clinical data for providers involved in SIM VBP pilots. This intervention will enable the eHIE to (1) act as a reporting platform for providers who are not satisfied with their EHR’s reporting abilities, and (2) if deemed appropriate, to act as the state platform for reporting community quality metrics based on clinical, rather than claim, data. One possible problem with Utah’s approach to the SIM is that the different participating payers may require varying quality reports. The chIE also offers an efficient platform upon which to deliver varying quality reports rather than each provider paying their individual EHR vendor to create custom reports. UDOH will provide oversight for this intervention. HealthInsight and UHIN will provide quarterly reporting of intervention activities to UDOH along with all established milestone reports outlined in the measure requirements.

**TIMELINE:** 3 years (2014-2016)  
**LOCATION:** HealthInsight, UDOH, and UHIN.

**SUBAIM 1.2:** IMPROVE SECURITY MEASURES OF KEY HIT ENABLED TOOLS

**INTERV 1.2.1:** Increase authorized access of cHIE, ePolst, APCD and other HIT-enabled tools to 100%

**COST ESTIMATE:** $2,500,000 for three years

**IMPLEMENTATION**

**RESPONSIBLE PARTIES:** It is expected that funding will be provided to the following entities to implement the proposed interventions:

*The Regional Extension Center for HIT in Utah – HealthInsight*

- Community outreach and education regarding Meaningful Use Stages 2 and 3, to include compilation and coordination of tools, resources and best practices and dissemination of such to providers and facilities (e.g. Learning and Action Networks, Meaningful Use boot camps, webinars and other helpful communication)
- Direct technical assistance to practices (all specialties) and facilities (critical access hospitals, rural hospitals, behavioral health facilities, and long-term care facilities) to support clinical workflow and process redesign/integration with an emphasis on the following high priority areas: Clinical Quality Measures Reporting, Population Care Management, Patient Engagement, Care Coordination through electronic HIE.
- Community outreach and education regarding Privacy & Security of Electronic Medical Records
- Direct technical assistance to practices and facilities to support the creation of interfaces between the cHIE and EHR systems. See cHIE Adoption Intervention
- Support and training for practice and facility providers and staff to educate patients on the cHIE and the consent process.
- Exchange to ensure minimal security safeguards are being implemented.

Education and technical assistance for all participants in the Statewide Health Information UHIN will coordinate the activities for improving the privacy and security. UHIN is a non-profit, community-based organization who has been charged with operating the eHIE. UHIN is governed by a broad based board with representatives from health insurers, hospitals, clinics, physicians, government and consumers.

**ACTIVITIES:** General Outreach and Technical Assistance support will be developed and enhanced for healthcare providers such as small and medium, independent clinics and healthcare facilities that need these services. These technical assistance and education efforts can be efficiently executed in coordination with other workgroups efforts such as transformational assistance (payment reform) and team based
Due to the ongoing security threats to UHIN and the CHIE, there is a need to deploy robust access monitoring systems. Assessments are completed annually and significant security threats are identified. The UHIN is required to have an annual privacy and security CHIE risk assessment which is overseen by a credible independent firm EHNAC. The EHNAC prioritized corrective action plans for the UHIN that is created and executed. The UHIN’s internal assessment and planning needs to be completed annually, in conjunction with the annual EHNAC and then again every other year.

ACTIVITIES: The proposal is to create additional capacity within the APCD to become the primary, and possibly sole, source of value metrics for all providers and payers in the state. Depending on the ultimate set of standardized value metrics chosen, the APCD will likely need enhanced analytic capability to create and disseminate those measures in a timely and accessible format. Most of these activities will occur in the second year of the Plan, after the standardized value metrics have been created.

LOCATION: Contractor

INTERV: 1.3.3 Accelerate VBP efforts through the use of the APCD

COST ESTIMATE: $1,500,000

IMPLEMENTATION
RESPONSIBLE PARTIES: UDOH

ACTIVITIES: The contractor will present a set of potentially usable value metrics to stakeholders (including payers, clinics, hospitals, and others) for their discussion, review and ultimately adoption through consensus.

The end goal of this intervention is to create a set of standardized value metrics that can be used for the basis of VBP contracting across the state. The level of success of these standardized metrics will be measured by how many stakeholders use only measures from the standardized set. The standardized metrics will need to be reviewed and revised over time. The contractor will also be responsible for establishing a process for making consensus updates to the standards.

TIMELINE: This project should be completed in less than a year. During the first three months, the contractor will collect information and opinions from all available sources to establish the scope of value metrics that would be most applicable. During the next three months, the contractor will review the set of possibilities and work with stakeholders to identify the most relevant and useful measures. This process will need to take into account factors such as whether the measure actually reflects higher value care, the ease or difficulty that providers and payers will have in producing the measures, and the likelihood of achieving consensus about the usefulness of the measure. During the last three to six months, the contractor will engage stakeholders in an iterative process that will ultimately lead to a set of consensus value measures.

LOCATION: UDOH

INTERV 1.3.2 Establish a test comparing VBP systems by recruiting at least three groups of payers and/or providers using different VBP systems

COST ESTIMATE: $950,000
TIMELINE: Year 1 – The APCD team at Utah Department of Health participates in the development of standardized value metrics to advise regarding the technical feasibility of collecting and reporting the metrics. Year 2 – The APCD team conducts a technical review of the standardized value metrics. Using the technical review as a guideline, a specific measurement protocol will be created for all value metrics that can be measured using the APCD system. The APCD will need to create the necessary analytic capacity to provide those measures to relevant data users. The APCD will also need to build interfaces to allow legitimate data users to extract or review their own quality measures on a timely basis.

LOCATION: UDOH

INTERV: 1.3.4 Provide technical support to Individuals, small business and public health to ensure ability to utilize VBP data and to ensure that new care coordination, case management and care transitions codes are fully utilized.

COST ESTIMATE: $1,385,000 for three years

IMPLEMENTATION
RESPONSIBLE PARTIES: UDOH will contract with a third party to provide this technical assistance.

ACTIVITIES/TIMELINE: Year 1 – During the first three months of the Plan, the State will engage stakeholders to determine the best approach and contact for this technical assistance. During the next three months of the Plan, the State will issue a RFP that covers the desired tasks. During the second half of the first year, the contractor will identify a set of potential clinics to participate in the technical assistance.

Years 2-3 – During the second and third years the contractor will provide a range of technical assistance under the terms of the RFP contract with the ultimate goal of increasing the number of small, independent clinics that are benefiting from VBP contracts and engaging in value-increasing activities.

LOCATION: Contractor

SUBAIM: 1.4 ALIGN SUPPLY/DEMAND WORKFORCE PROJECTION METHODOLOGIES WITH A VALUE-BASED PURCHASING ENVIRONMENT

INTERV: 1.4.1 Expand surveillance to include Primary & Behavioral Health Providers working in team and Value-Based Purchasing environment

COST ESTIMATE: $2,950,000 (this funds both Interventions 1.4.1 and 1.4.2)

IMPLEMENTATION
RESPONSIBLE PARTIES: UMEC.

ACTIVITIES: The expanded surveillance strategy requires commercial insurance, Medicare utilization, and outcomes data health workforce team studies. Data analytics would be contracted and collected by HealthInsight, the ResDAC, and the UHIN resulting in expansion of APCD. The APCD data would help to identify population needs throughout the state and the percent change from volume-based to value-based care.

TIMELINE: The expanded surveillance strategy has an estimated timeframe of two years. The project is currently designed to acquire the necessary data to produce pilot testing methodologies, and includes all licensed providers throughout the state of Utah.

LOCATION: UMEC

INTERV: 1.4.2 Incorporate population needs and outcomes into the supply model of providers in a value-based purchasing environment

COST ESTIMATE: Funding amount found in Interventions 1.4.1

IMPLEMENTATION
RESPONSIBLE PARTIES: UMEC

ACTIVITIES: The expanded surveillance strategy requires commercial insurance, Medicare utilization, and outcomes data health workforce team studies. Data analytics would be contracted and collected by HealthInsight, the ResDAC, and the UHIN resulting in expansion of APCD. The APCD data would help to identify population needs throughout the state and the percent change from volume-based to value-based care.

TIMELINE: The expanded surveillance strategy has an estimated timeframe of two years. The project is currently designed to acquire the necessary data to produce pilot testing methodologies, and includes all licensed providers throughout the state of Utah.

LOCATION: UMEC

INTERV: 1.5 PREPARE/TRAIN PROVIDERS TO PERFORM IN A VALUE-BASED PURCHASING ENVIRONMENT

INTERV: 1.5.1 Expand Utah Cluster Acceleration Partnership

COST ESTIMATE: $900,000

IMPLEMENTATION
RESPONSIBLE PARTIES: UCAP

ACTIVITIES: To ensure the pipeline for skilled non-physician providers and trained support staff workforce is sufficiently available, The Plan intends to provide $300,000 per year for the next 3 years to further fund UCAP initiatives, such as the nursing project program whose initial UCAP funding ends June 2014. Additionally, UCAP funds would be used to help design curriculum and accreditation programs modeled after the UCAP Medical Assistant initiative for other/additional support staff such as CHW and Behavioral Health peer support counselors. UCAP expansion will include coordination across various agencies working to fill the gaps in health care workforce fulfillment. Agencies include, USHE, DWS, GOED, DHS for Behavioral Health Peer counselors, and the UDOH for Community Health Workers.

TIMELINE: Throughout the next 3 years

LOCATION: Where systems of higher education exist throughout the state of Utah
Figure 29. Utah Cluster Acceleration Partnership Model

INTERV: 1.5.2 Provide training to existing practitioners on value-based clinical practice

COST ESTIMATE: $900,000

IMPLEMENTATION
RESPONSIBLE PARTIES: Funding will be used to contract with Care Management Plus (CM+) for their base curriculum and training with adaptations. CM+ originated out of Intermountain Healthcare (IH) in Salt Lake City, Utah and is now located at the University of Oregon Health Sciences and is directed by Dr. David Dorr in collaboration with Dr. Cherie Brunker from IH. Their training for care managers contain many of the components relevant to practicing in a VBP.

ACTIVITIES: Additional components will be added to the base curriculum to cover issues of health promotion in key areas of diabetes, heart disease, and obesity from the UDOH, use of information technology in practice from HealthInsight, collecting and reporting quality metrics (UDOH/HealthInsight), and patient safety event identification and disclosure (UDOH Patient Safety Collaborative). The workshops will be delivered over 2 days with an 8 week online follow-up. All participants will be encouraged to take part of the monthly WEB-NARS following their completion of the initial program. The base program costs $65,000 for approximately 35-40 people. Four sessions a year (1 per quarter) will be offered to Utah providers throughout the state (Urban, Rural, Frontier) for a total of 120 people a year. The $40,000 remaining each year will be used to cover administrative costs, materials, evaluation and curriculum updates. Each year the curriculum will be updated and renewal sessions will be offered. It is anticipated that close to 400 providers in the state of Utah will be trained in this practice change curriculum. Evaluation criteria will include patient outcome measures, efficiency measures and clinician satisfaction.

TIMELINE: over three years
LOCATION: state of Utah

INTERV: 1.5.3 Decrease inappropriate use of hospital resources through education of providers and patients about choosing healthcare interventions wisely

COST ESTIMATE: $1,000,000 (this amount funds interventions 1.5.3, 1.5.4, 1.5.5, and 1.5.6)

IMPLEMENTATION
RESPONSIBLE PARTIES: Partner with Utah Hospital Association (UHA), Utah Medical Association (UMA), UDOH, healthcare consumers and Health Insight to implement Choosing Wisely Program

ACTIVITIES: These initiatives will include simulation training in order to give real life experience in having these difficult conversations without the high stakes that normally accompany them, peer to peer coaching programs to provide peer mentors well-trained in crucial conversation coaching. We have learned that providers feel that coaching from providers of the same specialty and expertise can guide colleagues through familiar pitfalls and difficulties. We will teach providers how to have conversations about value-based care with their patients and with other providers who may disagree with them.

TIMELINE: 2014- begin to build consortium, baseline measurement begins
2015- Education of providers begins, ongoing measurement
2016-17- Maintenance phase, ongoing measurement

LOCATION: The consortium will be a collaboration between UMA and Health Insight housed outside any one institution with a statewide reach

INTERV: 1.5.4 Teach providers on how to have crucial conversations around disclosure and resolutions

COST ESTIMATE: Included in funding request for 1.5.3

IMPLEMENTATION
RESPONSIBLE PARTIES: Partner with UHA, UMA, and Health Insight, UDOH, and Utah Medical Insurance association to develop a consortium for disclosure and resolution training and dissemination and clearing house of best practices.

ACTIVITIES: These initiatives will include simulation training, webinars, DVDs and other training materials in order to give real life experience in having these difficult conversations without the high stakes that normally accompany them, peer to peer coaching programs to provide peer mentors well-trained in crucial conversation coaching. We have learned that providers feel that coaching from providers of the same specialty and expertise can guide colleagues through familiar pitfalls and difficulties. Finally, the consortium will disseminate lessons learned from unanticipated outcomes so that institutions throughout the state can learn for each other and prevent such events from ever occurring again.

TIMELINE: 2014- begin to build consortium, baseline measurement begins
2015- Education of providers begins, ongoing measurement
2016-17- Maintenance phase, ongoing measurement

LOCATION: The consortium will be a collaboration between UMA and Health Insight housed outside any one institution with a statewide reach

INTERV: 1.5.5 Train physicians, medical directors, liability insurers, risk managers, existing patient safety officers to lead communication initiatives

COST ESTIMATE: Included in funding request for 1.5.3

IMPLEMENTATION
RESPONSIBLE PARTIES: Partner with UHA, UMA, and Health Insight, UDOH, and Utah Medical Insurance association to develop a consortium for disclosure and resolution training and dissemination and clearing house of best practices.
ACTIVITIES: Through the consortium we will identify and train leaders such as physicians, medical directors, risk managers, liability insurers and those from existing patient safety organizations to be leaders and change agents within their home organizations.

TIMELINE: 2014- begin to build consortium, baseline measurement begins
Late 2014- Identification and training of leaders
2016-17- Maintenance phase, ongoing measurement

LOCATION: The consortium will be a collaboration between UMA and Health Insight housed outside any one institution with a statewide reach

INTERV: 1.5.6 Develop cross-institutional collaborative for provider communication and learning

COST ESTIMATE: Included in funding request for 1.5.3

IMPLEMENTATION
RESponsible PARTIES: Partner with UHA, UMA, and Health Insight, UDOH, and Utah Medical Insurance association to develop a consortium for disclosure and resolution training and dissemination and clearing house of best practices.

ACTIVITIES: Through the consortium leasers will identified and trained such as physicians, medical directors, risk managers, liability insurers and those from existing patient safety organizations to be change agents within their home organizations.

TIMELINE: 2014- begin to build consortium, baseline measurement begins
Late 2014- Identification and training of leaders
2016-17- Maintenance phase, ongoing measurement

LOCATION: The consortium will be a collaboration between UMA and Health Insight housed outside any one institution with a statewide reach

AIM 2: To facilitate end-of-life preferences for Utah citizens with dignity, respect and efficiency

SUBAIM: 2.1 TO HAVE 50-60% OF UTAH PATIENTS DIAGNOSED WITH A SERIOUS OR TERMINAL ILLNESS HAVE A PHYSICIAN ORDER OF LIFE SUSTAINING TREATMENT (POLST) ON FILE ELECTRONICALLY (ePOLST) AND TO HAVE 25% OF UTAH ADULTS (AGE 19+) COMPLETE ADVANCE DIRECTIVES (AD) FORM

INTERV: 2.1.1 Develop and enhance HIT enabled tools and assess their ability to support increasing the number of Utahns that have completed the appropriate end-of-life forms

COST ESTIMATE: $1.2 million for three years (UDOH- $250,000 per year, $750,000 total, educational entity $150,000 per year, $450,000 total)

IMPLEMENTATION

RESPONSIBLE PARTIES: the Leaving Well Coalition, the UDOH, UHIN, and the University of Utah

ACTIVITIES: Enhanced HIT enabled tools will be developed to assess the impact of the use of these tools to support increasing the number of Utahns that have completed the appropriate forms to ensure that their end-of-life wishes are followed. We will focus on the increased adoption and uptake of the use of POLST, defined as a physician order sheet based on patient wishes and medical indications for life-sustaining treatment. ePOLST is the electronic registry available for the POLST in Utah. We will increase the number of Utahns with a POLST in the ePOLST registry.

A standard form will be developed for AD, assess associated health literacy needs, and provide education and training to patients, families, providers, and other interested parties. A POLST public education campaign will be deployed utilizing several public media outlets: radio, television, social media and review the status of the supporting development of the HIT-infrastructure to assess access, data availability, and uptake and adoption. This will show the impact of our end-of life wishes intervention on value of health care in terms of Utah stakeholders and increase the population of ePOLST by focusing on training of the provider population that has a patient population who will likely perceive development and communication of end-of-life wishes in the registry as valuable. The focus will be on training and facilitation efforts on hospice and skilled nursing providers, patients, and families. Our goal is to have a POLST in the ePOLST as follows; 2013 (baseline): In the SLC regional area 1% or less, by 2014 15% in SLC regional area, by 2015 30% in SLC regional and 15% in rural areas, 2016 60% in SLC region and 60% statewide.

TIMELINE: In the SLC regional area- 1% or less, by 2014 15% in SLC regional area, by 2015 30% in SLC regional and 15% in rural areas, 2016 60% in SLC region and 60% statewide.

LOCATION: UDOH

INTERV: 2.1.2 Teach providers how to have crucial conversations around end of life, POLST, advanced directives

COST ESTIMATE: $800,000

IMPLEMENTATION

RESPONSIBLE PARTIES: Partner with consortium- UMA, Health Insight, physician leaders and community organizations

ACTIVITIES: These initiatives will include simulation training, webinars and handouts in order to give real life experience in having these difficult conversations without the high stakes that normally accompany them, peer to peer coaching programs to provide peer mentors well-trained in advanced care planning.

TIMELINE: 2014- begin to build consortium, baseline measurement begins
2015- Education of providers begins, ongoing measurement
2016-17- Maintenance phase, ongoing measurement

LOCATION: The consortium will be a collaboration between UMA and Health Insight housed outside any one institution with a statewide reach
INTERV: 2.1.3 Engage the community (including churches, faith-based organizations, educational systems, legal institutions, and Utah Commission on Aging in end-of-life conversations

COST ESTIMATE: $800,000

IMPLEMENTATION
RESPONSIBLE PARTIES: The Utah Commission of Aging

ACTIVITIES: The Utah Commission of Aging will act as the convening organization for this intervention and the Leaving Well Coalition, a community-based non-profit organization, will be the outreach organizations for patients, families, providers, and other interested parties. The UDOH has the legal authority to adopt the standard documents for ePOLST and will provide technical support for the IT infrastructure, in collaboration with UHIN. HealthInsight will support outreach to consumers through UtahHealthScape.org and coordinate training to providers. The University of Utah will provide technical support for development of HIT-infrastructure, consultation for content of training and health literacy, and for assessment of access to data, assessment of uptake and adoption, satisfaction, as well as other program evaluation efforts as needed.

TIMELINE: 2014- begin to build consortium, baseline measurement begins
2015- Education of providers begins, ongoing measurement
2016-17- Maintenance phase, ongoing measurement

LOCATION: The consortium will be a collaboration between UMA and Health Insight housed outside any one institution with a statewide reach

AIM 3: To Increase Access to Primary Care and Behavioral Health

SUBAIM: 3.1 TO IMPROVE HEALTHCARE VALUE (COST AND QUALITY) BY INCREASING APPROPRIATE ACCESS TO PRIMARY AND BEHAVIORAL HEALTHCARE IN UNDERSERVED AREAS BY 30%

INTERV: 3.1.1 Integrate mental, emotional, and behavioral (MEB) health screenings and interventions using interdisciplinary teams using SBIRT

COST ESTIMATE: $2,250,000 for three years

IMPLEMENTATION
RESPONSIBLE PARTIES: UDOH Emergency Medical Services Bureau in partnership with the Utah DHS, Substance Abuse and Mental Health Bureau, Utah Department of Commerce Division of Occupational Licensing

ACTIVITIES: SBIRT, a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those who are at risk of developing these disorders. Primary care centers, hospital emergency rooms, trauma centers, and other community settings will be targeted for early intervention with at-risk substance users before more severe consequences occur. A series of one day trainings will be provided aimed at EMS personnel, ED personnel, trauma center providers, primary care providers, and community health centers. These trainings will consist of an overview of the data for mental health and substance abuse issues showing up in these various sites, screening options relevant to the particular settings including diagnostic tools, referral resources within the community and intervention options. Six trainings will be held a year throughout the state of Utah with a cost of approximately $30,000 each or for $180,000 per year. A cloud-based training supplement will be developed to be deployed through the Utah Department of Commerce Division of Occupational Licensing at a cost of $120,000 the first year.

An additional amount of $450,000 per year is requested for advocacy to expand mental health and substance abuse screening into the educational system will be undertaken and worked through public health efforts in health promotion. Policy changes requiring mental health and substance abuse screenings for children entering school similar to a school physical will be advocated to the educational boards. Additional early peer group identification of substance use and mental health issues will be developed similar to the identification of concussion risk education in sports with peers. The goal of these efforts is to help grade and high school students to be able to identify and facilitate appropriate treatment of symptoms manifested in their peers prior to severe acting out or at risk behaviors. This effort is anticipated to cross organization barriers, require training in the schools with educators, families, and classrooms, and to involve policy advocacy at the school board level.

TIMELINE: 3 years LOCATION: Collaborative across all agencies

INTERV: 3.1.2 Implement most effective prevention and treatment practices for behavioral health using the ROSC sub-acute matrix

COST ESTIMATE: $5,250,000 for three years

IMPLEMENTATION
RESPONSIBLE PARTIES: DHS

ACTIVITIES: Partner with people in recovery from mental and substance use disorders to guide the behavioral health system and promote individual-, program, and system-level approaches that foster health and resilience; increase permanent housing, employment, education, and other necessary supports; and reduce barriers to social inclusion. Contract for coordinated network of community-based services and supports that is person centered and builds on the strengths and resilience of individuals, families, and communities to achieve abstinence and improved health, wellness, and quality of life for those with or at risk of alcohol and drug problems and/or mental illness. The ROSC continuum matrix will be used to guide prevention and treatment decisions.
**Figure 30. Recovery Oriented System of Care Continuum Matrix**

TIMELINE: 3 years  LOCATION: DHS

**INTERV: 3.1.3** Provide available healthcare services to where services are needed
Using Substance use Disorder Counselors (SUDC) and licensed mental health therapists (LMFTs) in 24 settings, peer support training and certification, and AHEC sponsored behavioral health training in 9 rural hospitals

**COST ESTIMATE:** $4,500,000 for three years

**IMPLEMENTATION**
**RESPONSIBLE PARTIES:** DHS, AHEC, UDOH

**ACTIVITIES:** Place SUDCs and LMFTs in Federally Qualified Health Centers (FQHC’s) and other non-traditional settings. Fund approximately 24 initial placements. Place Peer Support Specialists (both adult and children/youth) in local mental health authorities (LMHAs), local substance abuse authorities (LSAs) and FQHCs. Fund approximately 24 initial placements. Provide resources to train and certify peers to work as Peer Support Specialists

**TIMELINE:** 3 years  **LOCATION:** DHS

**INTERV: 3.1.4** Provide behavioral health services via telehealth services

**COST ESTIMATE:** $2,700,000

**IMPLEMENTATION**
**RESPONSIBLE PARTIES:** GATE program located at University of Utah

**ACTIVITIES:** Funding will be used to expand GATE in training primary care providers in early detection of childhood mental health conditions, dual diagnosis (substance abuse and mental health) issues, and medication management both in urban and in particular rural communities lacking in available mental health resources. Funding will also be used expand the GATE program to include adult access to mental health services, screenings and consultation when diagnosed by a primary care provider

GATE Utah has recently began contracting to provide consultations to the providers at the ARUP employee clinic, as well as to University of Utah Hospitals and Clinics employees and their families who have the University of Utah Health Plans. These expansions have included both pediatric and adult populations. While GATE has appreciated the partnerships with these two entities, the numbers of consults remains low. In order to expand, since GATE is a new system of healthcare delivery, and is currently not a reimbursable service through third party payers, GATE needs to expand to a large population. With providing earlier mental illness identification and treatment to such a population, GATE would hope to find cost savings in reduced medical costs, mental health utilization, emergency room crisis visits, and decreased psychiatric inpatient hospitalizations. On a larger scale, improved school attendance and graduation would be expected, and improved job satisfaction for pediatricians.

In order to accomplish this expansion, GATE needs funding for salary support, marketing, and web design. To cover all the children and adolescents in Utah, GATE would need support for 2 full time child psychiatrist salaries, for a part-time psychologist, for a part-time webmaster, for a full time case manager, and for a research assistant/statistician. Any support less than that would go to expansion of specific sub-populations of children in Utah, and with internet/technological support to improve the web access to a variety of therapeutic services, such as virtual psychotherapy and parenting webinars.

**TIMELINE:** 3 years  **LOCATION:** University of Utah

**AIM 4: To Create Community-Clinical Linkages and Healthful Environments**

**SUBAIM:** 4.1 INCREASE PROPORTION OF HEALTH PLANS AND ORGANIZATIONS THAT ENGAGE CHWs
INTERV: 4.1.1 Determine and establish payer commitment to the value of CHWs in a VBP environment

COST ESTIMATE: $25,000

IMPLEMENTATION
RESPONSIBLE PARTIES: UDOH will champion the effort to establish a baseline inventory of payer commitment and help collate information on the business case for the use of CHWs. UDOH will work with state and local organizations to extend their reach.

ACTIVITIES: An inventory of state health systems and plans that use CHWs as part of their care model and that allow for reimbursement of CHWs will be conducted to determine a state baseline. Data will be collected on the benefits of using CHWs, both in terms of better health and better health care. A business case for the use of CHWs will be created based on analysis of the collected data. Evaluation activities will include reporting of surveillance data to describe the improvement of control over selected chronic conditions.

TIMELINE: These activities will take place in year 1

LOCATION: UDOH will champion the above-listed activities and will work with partners to accomplish the activities.

INTERV: 4.1.2 Enhance CHW relationships and connections within communities and clinical arenas

COST ESTIMATE: $150,000

IMPLEMENTATION
RESPONSIBLE PARTIES: The activities for this intervention will be championed by the UDOH and implemented by UDOH and new and existing partners across the state.

ACTIVITIES: This intervention includes working with the CHWs (and their associations); the health systems, organizations and health care providers (and their associations); and the local resources in the community. Establish an inventory of examples of community clinical linkages throughout the state. Evaluation activities will include reporting of surveillance data to describe the improvement of control over selected chronic conditions and the number of patients appropriately accessing emergency and preventive services. An evaluation method, possibly a survey, will be selected to determine how to strengthen CHWs ability to link patients with existing local community resources.

TIMELINE: Activities relating to identification and creating new clinical linkages will take place from years 1 to 3

LOCATION: The activities for this intervention could take place at individual organizations, within local CHW organization(s), and/or within local communities.

INTERV: 4.1.3 Implement state-wide CHW training curriculum and registration process

COST ESTIMATE: $125,000

IMPLEMENTATION
RESPONSIBLE PARTIES: A CHW association (currently being created in Utah) could be the venue for standardized, statewide training and registration

ACTIVITIES: Creation and implementation of standardized, statewide training, and registration of CHWs

TIMELINE: These activities would take place in year 1

LOCATION: A CHW association (currently being created in Utah) would be the appropriate venue for standardized, statewide training and registration

INTERV: 4.1.4 Implement CHW model in 4 population subsets and evaluate results

COST ESTIMATE: $450,000

IMPLEMENTATION
RESPONSIBLE PARTIES: UDOH will facilitate the adoption of CHWs into individual health system’s/organization’s care models. UDOH will also be responsible for coordinating data collection and evaluation activities

ACTIVITIES: Support for adoption of CHWs into a health system’s/organization’s care model will be given by UDOH and partners. Evaluation will include systems and organizations that implement policy changes to allow for reimbursement of CHW services and the number that integrate CHWs into their care model

TIMELINE: Implementation of the CHW model in 4 population subset will take place in years 2 and 3

LOCATION: The implementation could take place at any level along the continuum of supporting patients in changing health behaviors - from the physician’s office/hospital to local community resources

SUBAIM: 4.2 ALIGN ALL WELLNESS EFFORTS ACROSS PUBLIC, PRIVATE AND NON-PROFIT SECTORS WITHIN AT LEAST ONE COMMUNITY AROUND A COMMON AGENDA TO IMPROVE COMMUNITY HEALTH

INTERV: 4.2.1 Determine methodology and select community

COST ESTIMATE: $50,000

IMPLEMENTATION
RESPONSIBLE PARTIES: A backbone organization responsible for undertaking the necessary activities to implement Subaim 4.2 will be selected. Once the community has been selected, a local, multi-sectoral partnership will be convened to lead community-level activities. These activities include creating a shared common health agenda for the community and reporting on activities/progress to the community.

ACTIVITIES: The purpose of the backbone organization is to support the local community in developing a coalition, a common shared health agenda, and implementation of that agenda.
TIMELINE: The backbone organization will be selected within year 1. The backbone organization will collaborate with the local community coalition in the following years to undertake local activities such as assisting in coalition building, development of a shared common health agenda, selection of local health interventions, and evaluation activities.

LOCATION: After the community has been selected, activities will take place in or near the selected community.

INTERV: 4.2.2 Develop and recruit coalition from multiple sectors to create common goals to improve community health.

COST ESTIMATE: $375,000

IMPLEMENTATION
RESPONSIBLE PARTIES: The backbone organization will be responsible for conducting coalition building activities in the selected community. The backbone organization will also assist the local coalition with activities undertaken both within the coalition and within the selected community. The responsibility of creating the coalition and implementing all local interventions/best practices is shared by the backbone organization and the selected community.

ACTIVITIES: Once the coalition has been convened, they will create their own by-laws that will govern their interaction between and among partners and with the community at large. The coalition and partners will undergo training on how to effectively work together and with the community. The backbone organization will assist the coalition as needed.

One of the tasks of the coalition will be to create a Community Health Assessment Index (CHAI) – a report card on the health of the community. Elements of the CHAI will include evaluation of ongoing activities/interventions/best practices as well as local surveillance data. The coalition partners (organizations) will help collect and share local data in order to publish the CHAI on a regular schedule.

TIMELINE: Coalition building activities (conducted by the backbone organization) will start immediately after the community is selected – within year 1. Coalition building activities will continue for the duration of the Plan in order to create a strong coalition that is self-sustaining. The CHAI activities will be initiated in year 2 of the Plan once the community is selected and a local coalition has been established. CHAI activities will continue through the Plan period.

LOCATION: All activities described above will take place either within the backbone organization or at the local community level (i.e., coalition and intervention activities).

INTERV: 4.2.3 Implement interventions and evaluate outcomes to fulfill agreed upon goals

COST ESTIMATE: $750,000

IMPLEMENTATION
RESPONSIBLE PARTIES: The coalition and the backbone organization will work collaboratively with the community to identify appropriate health intervention/best practices. The selected health interventions could be implemented by individuals, local organizations, and/or the coalition, depending on the intervention.

ACTIVITIES: The coalition will collaborate with the backbone organization to identify criteria to evaluate healthy interventions/best practices and identify those which can improve community health and are appropriate for the community. Evaluation plans will be implemented and data collected to evaluate interventions/best practices. The success of the interventions/best practices will be evaluated regularly. Each intervention/best practice is evaluated individually. The sum total of all interventions/best practices is evaluated using statewide and community-level data and the CHAI.

TIMELINE: Interventions/best practices will be identified and implemented in years 2 and 3.

LOCATION: The selected health interventions/best practices could be implemented by individuals, local organizations, and/or the coalition within the selected community

F. TRANSFORMATION TIMELINE NARRATIVE
This narrative describes critical milestones necessary for achieving transformation. During the process of healthcare transformation in Utah, there are key events that must occur for the project’s success. Some of these milestones will require state-level action. Therefore, state entities will be positioned to develop the necessary infrastructure and coordinate information dissemination that will facilitate in achieving the Plan’s goals of better health, better quality and lower costs.

The first year of the Plan requires that several VBP milestones are met to set the stage for the plans success. A value-based purchasing environment necessitates standardized quality metrics for payers and providers to be able to compare and contrast outcomes integrated with appropriate reimbursement. Identification and recruitment of payer/provider groups to establish these standardized quality metrics is a critical first milestone in the Plan. VBP milestones for healthcare transformation include:

- Convene a group of health organizations who are implementing their own VBP programs to participate in use of the standardized value metrics and;
- Evaluating the use of these metrics for best practices to determine if they save costs to the system

To support the development of the VBP environment, a number of HIT initiatives are crucial to support the overall transformation. All of the HIT programs addressed in the Plan require infrastructure support to further the aims. These aims are fundamental to a VBP environment, creating behavioral health programs that are easily integrated into healthcare systems, and facilitating documentation and follow-through for end of life issues. Major milestones in strengthening our HIT systems include:

- The sMPI with rules for governance as well as an entity responsible for running it.
- The APCD enabled to deliver useful information such as quality metrics and price to users including payers, providers, and consumers.
- The cHIE with increased usability, including security measures and is a platform for reporting quality metrics.
- A set of value metrics
- Evaluation protocols of value metrics using HIT tools (e.g. APCD and cHIE)
- 60% of providers using HIT tools (cHIE, sMPI, and APCD).
- HIT tools which are 100% self-sustaining.
- 80% of covered lives in VBP.
- 100% of users of key HIT enabled tools have completed security training and testing.
- A streamlined consent process available for sSPD
Information security is part of strengthening Utah's HIT systems. The following are milestones for securing electronic health information:
- 100% of users of key HIT enabled tools have completed security training and testing.
- Development and implementation of systems to monitor appropriate access of electronic health information
- Streamlined consent process for the eSPD developed and implemented

An important component of our healthcare infrastructure is meeting the needs of our medical providers. In order for Utah to reach its goal of having statewide access to primary and behavioral health, more providers are needed who are effectively using HIT tools to reach more patients.

Workforce milestones include:
- Expanded surveillance strategies to identify gaps in the healthcare workforce, most critically behavioral health and primary care providers.
- Implementation of prevention and treatment best practices for Behavioral Health including: Web-based training supplements to support live trainings that will integrate mental, emotional and behavioral health screenings in primary and acute healthcare settings.

In order to transform our healthcare environment, many Utah providers need to learn additional skills for working in a VBP environment. Educational milestones include:
- Practice knowledge and skills working in a VBP environment
- HIT and security, quality metrics, patient safety and critical disclosure
- Proper medical utilization; crucial conversations around unintended events and end-of-life; and team-based care
- Use of POLST and advance directives

Community health workers are an integral part of the Plan to the public. For example, in order to increase the use of POLST and AD, community health workers can link patients to providers so crucial conversations can take place.

In order to develop this profession, a state-wide CHW training curriculum and registration process will be developed. The following milestones are important to develop CHWs.
- Standardized training that leads to competent care in a VBP environment
- Implementation of a CHW model in four population subsets
- Reimbursement of CHWs by health systems creating a sustainable funding model for CHW efforts
- Improvement in the number of patients with improved control of chronic conditions and related risk factors
- Realizing a return on investment when using CHWs to care for patients with chronic conditions and related risk factors
- Integration of HIT tools in CHW practice

A critical milestone for the Plan will be the organization of community wellness coalitions. The common wellness agenda and use of CHWs will align all wellness efforts across public, private and non-profit sectors within the community and to improve community health. An evaluation of outcomes will determine if the community is reaching its goals. Healthful Environment milestones include:
- Choice of a community
- Community health assessment

G. EVALUATION OF THE UTAH HEALTH INNOVATION PLAN
The Plan shall set forth a strategy for evaluation, including:

Plans to provide access to data and stakeholders to enable CMS to evaluate:
- The extent to which the state’s delivery system reform plan was implemented
- Its effect on health care spending
- Its impact on health care quality

The Plan will be evaluated in multiple ways. A set of robust measures have been developed in multiple domains to assess outcomes. These measures include Process, Outcome, and Balance.

In addition to these measures of progress, operational management of the project will be assessed to assure adequate data collection and achievement of implementation targets as project activities are started and while other process, outcome and balancing measure data is being collected.

Prior to the initial phases of work, a standard operating procedures (SOP) will be developed for all work groups, so that all data, meeting minutes, and changes to plans will be accessible and transparent to all stakeholders. A public facing website will be created to allow community commentary on the work products as they are created. Documents will be archived and be made available to the public and CMS in a systematic way after approval by team leadership.

Outcome Measures
See Evaluation Plan Matrix (Appendix D) for details of the specific outcome measures that have been identified for use in the project. The evaluation matrix identifies the aim and subaim associated with each measure, a description of each measure, data source identified for the measure, location for where the data is housed, the planned method of collection, frequency of collection and the stakeholder group responsible for collection of the data associated with a particular measure.

Process Measures
Early evaluation will rely on process measures listed below:
Aim 1: To adapt and perform HIT increased security subaim
- Process measure: percentage of small independent providers and eHIE authorized users who have completed security training, the ease of creating risk scores, ease of formulating risk-adjusted cost measures, quality of key measures as judged by providers, and percentage and quality of VBP arrangements among systems will be examined.

Aim 2: To facilitate end of life preferences for Utah citizens
- Process measure: number of providers directing patients to fill out AD/POLST forms, number of forms filled out on paper versus electronically, and form availability at the time needed.

For Aim 3: To increase access to primary care and behavioral health
- Process measure: number and type of primary care providers and interdisciplinary teams trained to work in a VBP environment and the number and type of behavioral healthcare providers trained to work in a VBP environment.
Aim 4: To create a community-clinical linkages and healthful environments
Process measure: examine the number of organizations participating in the assessment and collaborating to implement evidence-based activities in the community

Balancing Measures
The Plan uses balancing measures to identify any unintended consequences of project implementation. HIT balancing measures include satisfaction with the sMPI, satisfaction with the Utah Provider Directory (UPD), and measures of financial sustainability of the CHIE. Value-based purchasing provider training balancing measures include types of providers working in the VBP environment, number of behavioral health screenings and number of patients appropriately accessing emergency and preventive services. VBP standardization balancing metrics include number of independent collaborators participating in the VBP environment. In the VBP focus on inappropriate use of hospital resources, serious safety events will be collected so that and increases in harm due to decreases in use of care will be recognized.

Data Sources
Data sources include HEDIS measures, APCD, State ED database, IBIS, MEPS, BRFSS, SAMHSA, CAHPS, UMEC, and data collected through the SIM project. Work has begun on developing focus group guides to collect qualitative data from stakeholders from within the state of Utah as well. Identification of potential sources of data include:
- Provider surveys
- Medicare administrative claims
- State Medicaid and CHIP program information
- Beneficiary experience surveys
- Site visits with practices
- Focus groups with beneficiaries and their families and caregivers, practice staff, direct support workers, and others (e.g. payers), for program evaluation

The evaluation plan will play an active role in continuous improvement and evaluation, particularly in regard to Medicaid and CHIP benefit sources.

Continuous Process Improvement and Ongoing Evaluation
The Plan has identified the Social Research Institute (SRI) in the College of Social Work at University of Utah as a state located research group with evaluation expertise to continue evaluation when needed after SIM funding has ended. The SRI provides research, training and consultation to build and enhance the capacity for human service systems change through evidence-based practice. SRI began in 1982 to serve as the research group for the College of Social Work and seeks to ensure effective outcomes while creating new capacity in designated areas. SRI has expertise in evaluation of demonstration projects, creating inclusive and effective research strategies, needs assessment, planning, training, technical assistance and work with the Utah State Legislature.

H. Projecting Financial Impacts
In order to better understand the potential of the Plan to improve value and decrease costs in the state UDOH contracted with Leavitt Partners to conduct a financial analysis of key parts of the Plan. Leavitt Partner’s was asked to include the following components in its analysis:
- An estimate of the size of any populations affected by the intervention, particularly the subpopulations covered by Medicare, Medicaid, CHIP and the uninsured (see Section A – Value-Based Purchasing for a more detailed description of the subpopulations)
- An estimate of the total costs as a per member per month figure for each population affected by the intervention
- A description of the type of anticipated costs from the intervention and the level of cost improvement anticipated for each affected or targeted population
- A calculation of the total amount of expected savings and the associated return on investment

UDOH asked Leavitt Partners to focus on two subaims:
- Subaim 1.3: To have 80 percent of Utah’s covered lives involved in a value-based purchasing plan
- Subaim 2.1: To have 50-60 percent of Utah patients diagnosed with a serious or terminal illness have an ePOLST on file and to have 25 percent of Utah adults (age 19+) complete an AD

In order to estimate the effect of each aim on the healthcare expenditures of the populations considered, Leavitt Partners constructed a model that divides the state into mutually-exclusive enrollment groups. Each group consists of a payer (such as Medicaid) and plan type (such as fee-for-service) combination. The model is developed by estimating the follow values:
- the current enrollments and healthcare expenditures for each group
- future healthcare expenditures for each group assuming that no health system reform takes place (the baseline model)
- future healthcare expenditures for each group assuming that the aim of interest is accomplished (these changes include both movement of individuals across groups and changes in the expenditure levels within each group)

Dividing the state in such a way involves many simplifying assumptions and the use of data from multiple sources. Successful innovations to the state health care system will shift baseline enrollments and expenditures away from the baseline trend.

For each group, Leavitt Partners identified a set of cost shifters that were applied to the baseline trend. The net estimated savings from these innovations was the difference between the new, innovation-induced curve and the baseline expenditure curve. Savings accumulate over time if the innovations lead to persistent differences from baseline levels.

Once these pieces of the model were in place, Leavitt Partners was able to calculate the return on investment from these aims as the net savings that result from the aim divided by the cost to the state of implementing the aim. Figure 31 illustrates how return on investment was calculated.
Leavitt Partners calculated return on investment on a 3-year and 5-year basis. The return on investment is simply the net savings per dollar spent by the state. These savings are calculated for each group in the model and then summed and reported for each of the sub-populations.

Leavitt Partners used simulation-based methods for determining return on investment rather than estimation based methods. This approach was primarily driven by the lack of micro data on which estimates could be conducted and also because simulations provided a way for determining a range of likely outcomes when underlying parameters in the model were themselves highly uncertain.

Net Savings: Value-Based Purchasing Subaim 1.3
The interventions targeted at moving the state towards 80% of covered lives in a VBP environment have the potential for significant savings for the state.

### Table 6. Estimated Savings by Statewide Adoption of VBP

<table>
<thead>
<tr>
<th>Subaim</th>
<th>Per-Capita Savings</th>
<th>ROI</th>
<th>% Saved Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-yr</td>
<td>5-yr</td>
<td>1-yr</td>
</tr>
<tr>
<td>Total</td>
<td>$332</td>
<td>$1,161</td>
<td>1.6%</td>
</tr>
<tr>
<td>Medicare</td>
<td>$307</td>
<td>$1,046</td>
<td>1.0%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>$206</td>
<td>$681</td>
<td>1.0%</td>
</tr>
<tr>
<td>Dual Eligible</td>
<td>$1,598</td>
<td>$5,165</td>
<td>1.6%</td>
</tr>
<tr>
<td>CPI</td>
<td>$48</td>
<td>$161</td>
<td>0.7%</td>
</tr>
<tr>
<td>Private</td>
<td>$363</td>
<td>$1,222</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

As indicated in the table, it is expected that the state will save an average total of $332 per person over a 3-yr period (or roughly $110 per year, per person). The highest potential gains are, naturally, among those with the highest level of spending—those eligible for both Medicare and Medicaid. Over five years, the state is expected to save an average of $1,151 per person.

### Table 7. Estimated Savings for End-of-Life Care

<table>
<thead>
<tr>
<th>Subaim</th>
<th>Per-Capita Savings</th>
<th>ROI</th>
<th>% Saved Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-yr</td>
<td>5-yr</td>
<td>1-yr</td>
</tr>
<tr>
<td>Total</td>
<td>$4</td>
<td>$7</td>
<td>0.0%</td>
</tr>
<tr>
<td>Medicare</td>
<td>$20</td>
<td>$24</td>
<td>0.0%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>$1</td>
<td>$1</td>
<td>0.0%</td>
</tr>
<tr>
<td>Dual Eligible</td>
<td>$9</td>
<td>$11</td>
<td>0.0%</td>
</tr>
<tr>
<td>CPI</td>
<td>$0</td>
<td>$0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Private</td>
<td>$1</td>
<td>$2</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

As indicated in the table, it is expected that the state will save an average total of $4 per person over a 3-yr period (or roughly $1.33 per year, per person).

It is quite possible that the new generation of POLST orders will have a greater effect on end-of-life care than has occurred through previous efforts, but this has yet to be demonstrated. The modest effects seen for this subaim reflect those previous experiences. More effective interventions in the future may push savings into the upper range of the distribution.

In addition to the direct results from the analysis of these two subaims, Leavitt Partners work provides a model for evaluation other aims. In the future UDOH will be able to use this model to estimate the cost of implementing the other subaims within the plan.
### APPENDIX A: Stakeholder Engagement Plan

#### STAKEHOLDER(S)

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Rationale for Stakeholder Involvement</th>
<th>Method of Engagement</th>
<th>Stakeholder Roles/Responsibilities</th>
<th>Timeframe for Stakeholder Engagement</th>
<th>Stakeholder Outputs/Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governor Greg Bell</td>
<td>Liaison with the Governor's Office</td>
<td>Chair of the Executive Policy Group (EPG)</td>
<td>Chair the EPG and call the Group</td>
<td>EPG meetings are engaged in the EPG activities and work group activities throughout the six-month period</td>
<td>Managed and chaired all EPG meetings and directed the approval and review of final goals and reports</td>
</tr>
<tr>
<td>Governor Spencer Cox</td>
<td>Liaison with the Governor's Office</td>
<td>Chair of the Executive Policy Group (EPG)</td>
<td>Chair the EPG and call the Group</td>
<td>EPG meetings are engaged in the EPG activities and work group activities throughout the six-month period</td>
<td>Managed and chaired all EPG meetings and directed the approval and review of final goals and reports</td>
</tr>
<tr>
<td>David Pettin Exec. Director Utah Department of Health (UDOH)</td>
<td>Liaison with the UDOH</td>
<td>Member of the EPG Support for the UDOH and coordination with other Cabinet members for the SIM project</td>
<td>Meetings with SIM UDOH staff to ensure project progress is on track (review list of list of kiles for stakeholder list)</td>
<td>Bi-weekly or more if needed</td>
<td>Policy and activity direction</td>
</tr>
<tr>
<td>Pam DePaulis Exec. Director Utah Department of Human Services (UDHS)</td>
<td>Liaison with the UDOH</td>
<td>Member of EPG</td>
<td>Provide access to state agencies and stakeholder programs</td>
<td>EPS meeting schedule and more as needed</td>
<td>Assign UDSH staff where needed to support work group activities specifically payment reforms and prevention.</td>
</tr>
<tr>
<td>Todd Klar Commissioner Utah Healthcare Insurance Department</td>
<td>Liaison with the UDOH</td>
<td>Member of EPG</td>
<td>Provide access to state agencies and stakeholder programs</td>
<td>EPS meeting schedule and more as needed</td>
<td>Assign insurance staff where needed to support work group activities specifically payment reforms.</td>
</tr>
<tr>
<td>John Dalee Vice President, Government and Payor Relations</td>
<td>Liaison with the UDOH</td>
<td>Member (EPG)</td>
<td>Input at the EPS level to review work group aims and drivers</td>
<td>EPS Meeting</td>
<td>Policy and activity direction</td>
</tr>
<tr>
<td>Representative Jim Cunningham</td>
<td>Liaison with the Utah State Legislature</td>
<td>Member of EPG</td>
<td>Provide coordination with Utah's Health Reform Taskforce Work Group Chair</td>
<td>EPS meeting schedule and more as needed</td>
<td>Assign EPG to work with members to identify recommendations that will be forwarded for Governor's review</td>
</tr>
<tr>
<td>Senator Evan Vickers</td>
<td>Liaison with the Utah State Legislature</td>
<td>Member of EPG</td>
<td>Provide coordination with Utah's Health Reform Taskforce Work Group Chair</td>
<td>EPS meeting schedule and more as needed</td>
<td>Assign EPG to work with members to identify recommendations that will be forwarded for Governor's review</td>
</tr>
<tr>
<td>Vivian Lee, MD</td>
<td>Senator/President for Health Science</td>
<td>Member of EPG</td>
<td>Chair – Workforce Work Group Meetings throughout the six-month project</td>
<td>EPS and Work Group Meetings</td>
<td>Guide Work Group to staff development of recommendations for SIM stakeholders in payment reforms.</td>
</tr>
<tr>
<td>Brian Hulse, MD, President Utah Medical Association (UMA)</td>
<td>Liaison with the UDOH</td>
<td>Member (EPG)</td>
<td>Provide policy access to Utah Medical Association Members and affiliates</td>
<td>EPS Meetings</td>
<td>Policy and activity direction (Engage other members with appropriate work groups)</td>
</tr>
</tbody>
</table>

#### STAKEHOLDER(S)

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Rationale for Stakeholder Involvement</th>
<th>Method of Engagement</th>
<th>Stakeholder Roles/Responsibilities</th>
<th>Timeframe for Stakeholder Engagement</th>
<th>Stakeholder Outputs/ Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Emhardt, Board Chair Utah Hospital Association</td>
<td>Liaison with the UDOH</td>
<td>EPS Member</td>
<td>Policy coordination with the UDOH Association Board of Trustees and members</td>
<td>EPS Meetings</td>
<td>Policy and activity direction</td>
</tr>
<tr>
<td>John Fop Hammond Stores</td>
<td>Large Employer Health System impact on changes to business</td>
<td>EPS Member</td>
<td>Input at the EPS level to review work group aims and drivers</td>
<td>EPS Meetings</td>
<td>Policy and activity direction</td>
</tr>
<tr>
<td>Greg Jones, Pharmaceutical Director</td>
<td>Large Business Employer Health System impact on changes to business</td>
<td>EPS Member</td>
<td>Co-Chair Prevention and Wellness Work Group Meetings throughout the six-month project</td>
<td>EPS and Work Group Meetings</td>
<td>Policy and activity direction</td>
</tr>
<tr>
<td>Ben McAlpine Mayor Salt Lake County</td>
<td>Liaison with the UDOH</td>
<td>Member (EPG)</td>
<td>Input at the EPS level to review work group aims and drivers</td>
<td>EPS Meetings</td>
<td>Policy and activity direction</td>
</tr>
<tr>
<td>Charles Sommern, MD</td>
<td>Information Work Group</td>
<td>EPS Member</td>
<td>Insert the level of review work group aims and drivers</td>
<td>EPS Meetings</td>
<td>Policy and activity direction</td>
</tr>
<tr>
<td>John Harmon, COO</td>
<td>Information Work Group</td>
<td>EPS Member</td>
<td>Input at the EPS level to review work group aims and drivers</td>
<td>EPS Meetings</td>
<td>Policy and activity direction</td>
</tr>
<tr>
<td>Co-Chair: Sharon Dorrity, Health Informatics</td>
<td>EPS Member</td>
<td>Chair of the Health Information Work Group</td>
<td>Direct and drive the development of the Work Group</td>
<td>EPS Meetings</td>
<td>Work Group Chair Staffing with Jennifer Garvin to development aims and drivers for State Health Innovation Plan in health information</td>
</tr>
<tr>
<td>Co-Chair: Mark Morgan, PhD</td>
<td>EPS Member</td>
<td>Chair of the Health Information Work Group</td>
<td>Direct and drive the development of the Work Group</td>
<td>EPS Meetings</td>
<td>Work Group Chair Staffing with Jennifer Garvin to development aims and drivers for State Health Innovation Plan in health information</td>
</tr>
<tr>
<td>Scott Buerer, AIA</td>
<td>Large Business</td>
<td>Member of Health Information Work Group</td>
<td>Participate ex work group and assist with aim and drivers</td>
<td>EPS Meetings</td>
<td>Work Group Chair Staffing with Jennifer Garvin to development aims and drivers for State Health Innovation Plan in health information</td>
</tr>
<tr>
<td>Laura C. Florencio, MD</td>
<td>Physicians</td>
<td>Member of Health Information Work Group</td>
<td>Participate ex work group and assist with aim and drivers</td>
<td>EPS Meetings</td>
<td>Work Group Chair Staffing with Jennifer Garvin to development aims and drivers for State Health Innovation Plan in health information</td>
</tr>
<tr>
<td>Pat Richards, Select Health</td>
<td>Member of Health Information Work Group</td>
<td>Participate ex work group and assist with aim and drivers</td>
<td>EPS Meetings</td>
<td>Work Group Chair Staffing with Jennifer Garvin to development aims and drivers for State Health Innovation Plan in health information</td>
<td></td>
</tr>
<tr>
<td>James VanDorcal, University of Utah</td>
<td>Public Health</td>
<td>Member of Health Information Work Group</td>
<td>Participate ex work group and assist with aim and drivers</td>
<td>EPS Meetings</td>
<td>Work Group Chair Staffing with Jennifer Garvin to development aims and drivers for State Health Innovation Plan in health information</td>
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### APPENDIX A: Stakeholder Engagement Plan

#### WORK GROUPS

<table>
<thead>
<tr>
<th>Work Group</th>
<th>WORK GROUP I: HEALTH INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-Chair: Sharon Dorrity, Health Informatics</td>
<td>Chair of the Health Information Work Group</td>
</tr>
<tr>
<td>Co-Chair: Mark Morgan, PhD</td>
<td>Chair of the Health Information Work Group</td>
</tr>
<tr>
<td>Scott Buerer, AIA</td>
<td>Member of Health Information Work Group</td>
</tr>
<tr>
<td>Laura C. Florencio, MD</td>
<td>Member of Health Information Work Group</td>
</tr>
<tr>
<td>Co-Chair: Sharon Dorrity, Health Informatics</td>
<td>Chair of the Health Information Work Group</td>
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</tr>
<tr>
<td>Laura C. Florencio, MD</td>
<td>Member of Health Information Work Group</td>
</tr>
</tbody>
</table>

#### RATIONALE FOR STAKEHOLDER INVOLVEMENT

- **Engage other members with appropriate work groups.**
- **Provide policy access to Utah Medical Association Members and affiliates.**
- **Provide access to state agencies and stakeholder programs.**
- **Input at the EPS level to review work group aims and drivers.**
- **Assign EPG to work with members to identify recommendations that will be forwarded for Governor's review.**
## APPENDIX A: Stakeholder Engagement Plan

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<tr>
<th>STAKEHOLDER(S)</th>
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<th>STAKEHOLDER OUTPUTS/DELIVERABLES</th>
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<tbody>
<tr>
<td>David E. Putinton, Porce Family Services</td>
<td>Small Business</td>
<td>Member of Health Information Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for State Health Innovation Plan in health information</td>
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<tr>
<td>Christopher Wood, MD, Intermountain Health Care</td>
<td>Physician</td>
<td>Member of Health Information Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for State Health Innovation Plan in health information</td>
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<tr>
<td>Bill Crim, United Way</td>
<td>Consumer Advocate</td>
<td>Member of Health Information Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Keith Teke, Mountain Star Health Care</td>
<td>Hospitals</td>
<td>Member of Health Information Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>James G. Talbot, University of Utah</td>
<td>Public Health</td>
<td>Member of Health Information Work Group</td>
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<tr>
<td>David Holbrook, Regence Blue Cross Blue Shield</td>
<td>Payor</td>
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<tr>
<td>Kevin Pufahl, Union Pacific Railroad (Health Care)</td>
<td>Large business</td>
<td>Member of Health Information Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Lynette Hansen, Abbott Health Plaza</td>
<td>Payor</td>
<td>Member of Health Information Work Group</td>
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<tr>
<td>Henry Gantner, Zion Bank</td>
<td>Large Employer</td>
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<tr>
<td>Scott Barrow, University of Utah Medical School</td>
<td>Provider</td>
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<td>Sarah Marchenk, MD, Health Insight</td>
<td>Private Non-Profit</td>
<td>Member of Health Information Work Group</td>
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<td>Work Group Meetings</td>
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<tr>
<td>Jan Roul, Utah Health Information Network</td>
<td>Payor and Previder</td>
<td>Member of Health Information Work Group</td>
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<tr>
<td>Dick LeMarche, Utah Telehealth Network</td>
<td>Telemedicine</td>
<td>Member of Health Information Work Group</td>
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<tr>
<td>Chad Little, Public Employees Health Plan</td>
<td>Payor</td>
<td>Member of Health Information Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
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<tr>
<td>Brad Lord, Utah Utah Medical Center</td>
<td>Rural Hospital</td>
<td>Member of Health Information Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
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<tr>
<th>WORK GROUP II – HEALTH WORK FORCE</th>
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<th>STAKEHOLDER ROLES/RESPONSIBILITIES</th>
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<th>STAKEHOLDER OUTPUTS/DELIVERABLES</th>
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<tr>
<td>Vivian Lee, Dean School of Medicine and CEO, University of Utah Health Systems</td>
<td>Education – Health Professions Training</td>
<td>Co-Chair of the Workforce Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<td></td>
</tr>
<tr>
<td>Linda Hove, Assistant Vice President of Nursing, Intermountain Health Care</td>
<td>Large Health Care Provider</td>
<td>Co-Chair of the Workforce Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Jennifer Oon, Physician Assistant Program, University of Utah</td>
<td>Health Professions Training Program</td>
<td>Member of Health Work Force Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Jennifer Leiser, MD, Department of Family and Preventive Medicine, University of Utah</td>
<td>Health Professions Training Program</td>
<td>Member of Health Work Force Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
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<tr>
<td>Tracy Kay, MD, College of Nursing, University of Utah</td>
<td>Health Professions Training Program</td>
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<tr>
<td>Maureen Karl, College of Nursing, University of Utah</td>
<td>Health Professions Training Program</td>
<td>Member of Health Work Force Group</td>
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<tr>
<td>Barbara Willson, College of Nursing, University of Utah</td>
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<tr>
<td>Ed Clark, MD, School of Medicine, University of Utah</td>
<td>Health Professions Training Program</td>
<td>Member of Health Work Force Group</td>
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<tr>
<td>Namira Simmons, PhD, Dean, Elkins R. Ditto College of Health Professions, Weber State University</td>
<td>Health Professions Training Program</td>
<td>Member of Health Work Force Group</td>
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<tr>
<td>Lasia Robins, College of Nursing, University of Utah</td>
<td>Health Professions Training Program</td>
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<tbody>
<tr>
<td>Louis Garrett, Davis County Health Dept.</td>
<td>Local Health Officer</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Rich Bullock, Summit County Health Dept.</td>
<td>Local Health Officer</td>
<td>Participate on Work Group</td>
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<tr>
<td>Audrey Snowman, Salt Lake Valley Health Dept.</td>
<td>Local Health Department Department Nursing Director</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
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<td>Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness</td>
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<tr>
<td>Kathy Briggs, Granite Schools District</td>
<td>School Nurse</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Alan Prato, Association of Utah Community Health Centers</td>
<td>Community Health Organization</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Alan Ainsworth, University of Utah</td>
<td>Higher Education</td>
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<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Luc Joy, Intermountain</td>
<td>Health System</td>
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<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Donna Moin, Utah Rural Health Association</td>
<td>Rural Health</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness</td>
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<tr>
<td>Scott Hansen, Intermountain</td>
<td>Health System</td>
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<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Julia Day, University of Utah Health U</td>
<td>Paper</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Kathleen Dwyer, University of Utah</td>
<td>Community</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Dave Cook, Health Insight</td>
<td>Health Quality Improvement</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
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<tr>
<td>Steve Alder, University of Utah</td>
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<td>Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness</td>
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<tr>
<td>Bruce Cost, Centra- Utah Public Health Department</td>
<td>Rural Local Health Officer</td>
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<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Lee Nova, BYU</td>
<td>Higher Education</td>
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## WORK GROUP II – PREVENTION AND WELLNESS

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<tr>
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<tbody>
<tr>
<td>Nancy Neff, Southwest Utah Community Health Center</td>
<td>Rural Member of Prevention and Wellness Workgroup</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Scott Braun, AHA-Utah</td>
<td>Advocate</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness</td>
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<tr>
<td>Natalie Guichard, Chamber of Commerce</td>
<td>Business</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness</td>
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<tr>
<td>Superintendent Minlow, USDE</td>
<td>Business</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Darrin Madsen, YMCA</td>
<td>Business</td>
<td>Participate on Work Group</td>
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<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness</td>
</tr>
<tr>
<td>Rebecca Feldau, ARUP</td>
<td>Business</td>
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<tr>
<td>Dave Larsen, Select Health</td>
<td>Paper</td>
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<td>Prevention and Wellness Workgroup</td>
<td>Work Group Meetings</td>
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<tr>
<td>Gail Rapp, Medicaid, UDOH</td>
<td>Public Paper</td>
<td>Participate on Work Group</td>
<td>Prevention and Wellness Workgroup</td>
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<tr>
<td>Victor Ayala, AHA-Utah</td>
<td>Advocate</td>
<td>Participate on Work Group</td>
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<tr>
<td>Michelle Moore, Intermountain</td>
<td>Community Health</td>
<td>Participate on Work Group</td>
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<tr>
<td>Bill Chen, Intraday</td>
<td>Community/Advocate</td>
<td>Participate on Work Group</td>
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<td>Rich West, YMCA</td>
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<td>Niall Gough, Molica</td>
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<tr>
<td>Joyce Kim, Health Choice</td>
<td>Paper</td>
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<tr>
<td>Ed Naples, Urban Indian Center</td>
<td>Tribal</td>
<td>Member of Provender and Wellness Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Tim Butler, Select Health</td>
<td>Payor</td>
<td>Member of Provender and Wellness Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Chad Whitecrow, Molina Healthcare</td>
<td>Medicaid Payer</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
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<tr>
<td>John Osaka, Sala</td>
<td>Medicaid AOD &amp; Hospital System</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
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<tr>
<td>Jon Myott, Intermountain Healthcare</td>
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<td>Mike Magill, University of Utah Health System</td>
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<tr>
<td>Dr. Lottfu, PhEHP</td>
<td>Public Payer</td>
<td>Member of Payment Reform Workgroup</td>
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<td>David Cai, DMBB</td>
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<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Greg Paulsen, Intermountain Healthcare</td>
<td>Hospital System</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>John Hanahan, MountainStar Healthcare</td>
<td>Hospital System</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Scott Barkes, Utah Medical Clinic</td>
<td>Physician and Specialty Clinic</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Mary Jane Porumbogu, Orange Clinic</td>
<td>Physician Clinic</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
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WORK GROUP IV – PAYMENT REFORM

<table>
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<tr>
<th>STAKEHOLDER(S)</th>
<th>RATIONALE FOR STAKEHOLDER INVOLVEMENT</th>
<th>METHOD OF ENGAGEMENT</th>
<th>STAKEHOLDER ROLES/RESPONSIBILITIES</th>
<th>TIMEFRAME FOR STAKEHOLDER ENGAGEMENT</th>
<th>STAKEHOLDER OUTPUTS/Deliverables</th>
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<tbody>
<tr>
<td>Maija Holsti, MD, MPH, University of Utah, Primary Children’s Medical Center</td>
<td>Community Engagement, Qualitative Research</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
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<tr>
<td>Doug Nelson, MD, University of Utah, Primary Children’s Medical Center</td>
<td>Community Engagement, Qualitative Research</td>
<td>Member of Payment Reform Workgroup</td>
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<td>Work Group Meetings</td>
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<tr>
<td>Moji Haddi, MD, MPH, University of Utah</td>
<td>Community Engagement, Qualitative Research</td>
<td>Member of Payment Reform Workgroup</td>
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<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Jawahar Kuk, PhD, University of Utah</td>
<td>Quality Improvement, Health Information Technology, Medicaid ACO &amp; Hospital System</td>
<td>Member of Payment Reform Workgroup</td>
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WORK GROUP V – QUALITY AND PATIENT SAFETY

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<th>STAKEHOLDER ROLES/RESPONSIBILITIES</th>
<th>TIMEFRAME FOR STAKEHOLDER ENGAGEMENT</th>
<th>STAKEHOLDER OUTPUTS/Deliverables</th>
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<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Lorenz Chen, PhD, Intermountain Quality and Patient Safety</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety</td>
</tr>
<tr>
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<td>Participate on Work Group</td>
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<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety</td>
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<tr>
<td>Xiaoming Zhang, PhD, University of Utah</td>
<td>Bioinformatics</td>
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<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
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<tr>
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<td>Quality Improvement</td>
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WORK GROUP VI – PAYMENT REFORM

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<th>TIMEFRAME FOR STAKEHOLDER ENGAGEMENT</th>
<th>STAKEHOLDER OUTPUTS/Deliverables</th>
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<td>Member of Payment Reform Workgroup</td>
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<td>Work Group Meetings</td>
</tr>
<tr>
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<td>Health Data</td>
<td>Member of Payment Reform Workgroup</td>
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<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Marc Bennett, Health Insight</td>
<td>Health Data</td>
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<td>Participate on Work Group</td>
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<td>Work Group Meetings</td>
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<tr>
<td>Taiju Myatt, Dept of Insurance</td>
<td>Regulator</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>San, Emerald</td>
<td>State Senator</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
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<tr>
<td>Rep Jim Doggett</td>
<td>State Representative</td>
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WORK GROUP VII – QUALITY AND PATIENT SAFETY

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<th>STAKEHOLDER ROLES/RESPONSIBILITIES</th>
<th>TIMEFRAME FOR STAKEHOLDER ENGAGEMENT</th>
<th>STAKEHOLDER OUTPUTS/Deliverables</th>
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<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Lorenz Chen, PhD, Intermountain Quality and Patient Safety</td>
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<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Amindeh Honors</td>
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<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety</td>
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<tr>
<td>Xiaoming Zhang, PhD, University of Utah</td>
<td>Bioinformatics</td>
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<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Michael Dela Cruz, University of Utah</td>
<td>Quality Improvement</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
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WORK GROUP VIII – PAYMENT REFORM

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<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Charles Howley, APCO</td>
<td>Health Data</td>
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<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Marc Bennett, Health Insight</td>
<td>Health Data</td>
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<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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<tr>
<td>Taiju Myatt, Dept of Insurance</td>
<td>Regulator</td>
<td>Member of Payment Reform Workgroup</td>
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<tr>
<td>San, Emerald</td>
<td>State Senator</td>
<td>Member of Payment Reform Workgroup</td>
<td>Participate on Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
</tr>
<tr>
<td>Rep Jim Doggett</td>
<td>State Representative</td>
<td>Chair of Payment Reform Workgroup</td>
<td>Chair Work Group</td>
<td>and assist with aim and driver development</td>
<td>Work Group Meetings</td>
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### APPENDIX A: Stakeholder Engagement Plan

<table>
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<tr>
<th>STAKEHOLDER(S)</th>
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<th>TIMEFRAME FOR STAKEHOLDER ENGAGEMENT</th>
<th>STAKEHOLDER OUTPUTS/DELIVERABLES</th>
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<tr>
<td>Heather Canady, PhD, University of Utah</td>
<td>Communication, Qualitative Methods</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah’s State Health Innovation Plan in Quality and Patient Safety</td>
<td></td>
</tr>
<tr>
<td>Michael M. Melts, JD, Howard University, Public Health</td>
<td>Member, Quality and Patient Safety Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah’s State Health Innovation Plan in Quality and Patient Safety</td>
<td></td>
</tr>
<tr>
<td>Thomas H. Gallagher, MD, University of Washington</td>
<td>Physician, Dispute Resolution specialist</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah’s State Health Innovation Plan in Quality and Patient Safety</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STATE SIM STAFF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deborah Turner, RN, BS Utah SIM Coordinator</td>
<td>University of Health State SIM Staff</td>
<td>Staff SIM Project Coordinator Lead Staff for EPS</td>
<td>Participate and oversee all aspects of the project</td>
<td>Attendance at all meetings where possible for work groups and EPS for the duration of the SIM grant process</td>
<td>All federal and state reports</td>
</tr>
<tr>
<td>Shelly Towner, Project Manager</td>
<td>Utah Department of Health State SIM Staff</td>
<td>Staff SIM Project Coordinator Lead Staff for Work Group Coordination</td>
<td>Participate and oversee all aspects of the project</td>
<td>Attendance at all meetings where possible for work groups and EPS for the duration of the SIM grant process</td>
<td>All federal and state reports</td>
</tr>
<tr>
<td>Wu Xu</td>
<td>Utah Department of Health SIM Work Group I Staff</td>
<td>Work Group I Staff Lead</td>
<td>Coordinate all Work Group Activities with Co-leads and Work Group Staff: Jennifer Ganoe, Megha Kalsy</td>
<td>Attendance at all meetings where possible for work groups and EPS for the duration of the SIM grant process</td>
<td>Development of Work Group I Aims and Drivers, Quarterly and Final Report Work Group I Sections</td>
</tr>
<tr>
<td>Marc Beharz, MD</td>
<td>Utah Department of Health SIM Work Group II Staff</td>
<td>Work Group II Staff Lead</td>
<td>Coordinate all Work Group Activities with members and Chairs</td>
<td>Attendance at all meetings where possible for work groups and EPS for the duration of the SIM grant process</td>
<td>Development of Work Group II Aims and Drivers, Quarterly and Final Report Work Group II Sections</td>
</tr>
<tr>
<td>Irena Tsvetan</td>
<td>Utah Department of Health SIM Work Group III Staff</td>
<td>Work Group III Staff Lead and Evaluation Project Manager</td>
<td>Coordinate all Work Group Activities with members and Chairs</td>
<td>Coordinate development of Utah SIM Evaluation Plan</td>
<td>Attendance at all meetings where possible for work groups and EPS for the duration of the SIM grant process</td>
</tr>
<tr>
<td>Teresa Garrett</td>
<td>Utah Department of Health SIM Work Group III Staff</td>
<td>Work Group III Staff Lead</td>
<td>Coordinate all Work Group Activities with members and Chairs</td>
<td>Attendance at all meetings where possible for work groups and EPS for the duration of the SIM grant process</td>
<td>Development of Work Group III Aims and Drivers, Quarterly and Final Report Work Group III Sections</td>
</tr>
<tr>
<td>Heather Barlow</td>
<td>Utah Department of Health SIM Work Group IV Staff</td>
<td>Work Group IV Staff Lead</td>
<td>Coordinate all Work Group Activities with members and Chairs</td>
<td>Attendance at all meetings where possible for work groups and EPS for the duration of the SIM grant process</td>
<td>Development of Work Group IV Aims and Drivers, Quarterly and Final Report Work Group IV Sections</td>
</tr>
<tr>
<td>Sonja Thornton</td>
<td>Utah Department of Health SIM Work Group IV Staff</td>
<td>Work Group IV Staff Lead</td>
<td>Coordinate all Work Group Activities with members and Chairs</td>
<td>Attendance at all meetings where possible for work groups and EPS for the duration of the SIM grant process</td>
<td>Development of Work Group IV Aims and Drivers, Quarterly and Final Report Work Group IV Sections</td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>UNIVERSITY OF UTAH CONSULTING CONTRACTOR STAFF</td>
<td></td>
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</tr>
<tr>
<td>Victoria Wilkins, MD, MPH, University of Utah</td>
<td>Physician, Quality Improvement</td>
<td>Co-Project Coordinator for Utah SIM Project and the Quality and Patient Safety Work Group</td>
<td>Participate on Work Group and assist with all work groups with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah’s State Health Innovation Plan in Quality and Patient Safety and assist with all other UT SIM Project plan development</td>
</tr>
</tbody>
</table>

### APPENDIX A: Stakeholder Engagement Plan

<table>
<thead>
<tr>
<th>STAKEHOLDER(S)</th>
<th>RATIONALE FOR STAKEHOLDER INVOLVEMENT</th>
<th>METHOD OF ENGAGEMENT</th>
<th>STAKEHOLDER ROLES/RESPONSIBILITIES</th>
<th>TIMEFRAME FOR STAKEHOLDER ENGAGEMENT</th>
<th>STAKEHOLDER OUTPUTS/DELIVERABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elizabeth Sutphin, MD, MPH, University of Utah</td>
<td>Physician, Quality Improvement</td>
<td>Co-Project Coordinator for Utah SIM Project and the Quality and Patient Safety Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Development of aims and drivers for Utah’s State Health Innovation Plan in Quality and Patient Safety</td>
</tr>
<tr>
<td>Natasha Kwendakwema, University of Utah</td>
<td>Program Coordinator</td>
<td>Staff for Utah SIM Project and the Quality and Patient Safety Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Aid and managers for Utah’s State Health Innovation Plan in Quality and Patient Safety and assist Project Coordinators and Managers</td>
</tr>
<tr>
<td>Kanmy Jacobson, University of Utah</td>
<td>Program Coordinator</td>
<td>Staff for Utah SIM Project and the Quality and Patient Safety Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Aid and managers for Utah’s State Health Innovation Plan in Quality and Patient Safety and assist Project Coordinators and Managers</td>
</tr>
<tr>
<td>Annette Mople, University of Utah</td>
<td>Program Coordinator</td>
<td>Staff for Utah SIM Project and the Quality and Patient Safety Work Group</td>
<td>Participate on Work Group and assist with aim and driver development</td>
<td>Work Group Meetings</td>
<td>Aid and managers for Utah’s State Health Innovation Plan in Quality and Patient Safety and assist Project Coordinators and Managers</td>
</tr>
</tbody>
</table>

### RATIONALE FOR STAKEHOLDER INVOLVEMENT
- University of Utah Consulting Contractor Staff: Participate in Work Group and assist with aim and driver development.
- State SIM Staff: Participate and oversee all aspects of the project.
- Stakeholder roles/responsibilities:
  - Quality and Patient Safety Coordinator for Utah SIM.
  - Co-Project Coordinator for Utah SIM.
  - Work Group Participants.

### METHOD OF ENGAGEMENT
- Work Group Meetings.
- Participation in Work Group and assist with aim and driver development.

### TIMEFRAME FOR STAKEHOLDER ENGAGEMENT
- Project Quarterly and Final Report.
- Research and Business.

### STAKEHOLDER ROLES/RESPONSIBILITIES
- Quality and Patient Safety Coordinator for Utah SIM.
- Co-Project Coordinator for Utah SIM.
- Work Group Participants.

### TIMEFRAME FOR STAKEHOLDER ENGAGEMENT
- Project Quarterly and Final Report.
- Research and Business.

### DELIVERABLES
- Development of aims and drivers for Utah’s State Health Innovation Plan in Quality and Patient Safety.
- Assist Project Coordinators and Managers.

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### APPENDIX B: AIMS AND INTERVENTIONS

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>TOTAL PLAN/PROPOSED BUDGET - 3 YRS</th>
<th>EXPECTED OUTCOME</th>
<th>OUTCOME MEASURE</th>
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<tr>
<th>APPENDIX B: AIMS AND INTERVENTIONS</th>
<th>TOTAL PLAN/PROPOSED BUDGET - 3 YRS</th>
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<th>OUTCOME MEASURE</th>
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<table>
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<tr>
<th>OUTCOME</th>
<th>TOTAL PLAN/PROPOSED BUDGET - 3 YRS</th>
<th>EXPECTED OUTCOME</th>
<th>OUTCOME MEASURE</th>
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<tbody>
<tr>
<td>EXOUT 1.1.1</td>
<td>Improved awareness and process to make end-of-life preferences known to providers.</td>
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<td>EXOUT 1.1.2</td>
<td>$2,250,000</td>
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<td>EXOUT 1.1.7</td>
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<td>EXOUT 1.1.8</td>
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<table>
<thead>
<tr>
<th>OUTCOME</th>
<th>TOTAL PLAN/PROPOSED BUDGET - 3 YRS</th>
<th>EXPECTED OUTCOME</th>
<th>OUTCOME MEASURE</th>
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<tbody>
<tr>
<td>OMEAS 1.2.1</td>
<td>Percentage of adults who have documented end-of-life preferences through ePOLST</td>
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<td>OMEAS 1.2.2</td>
<td>Percentage of adults who have documented end-of-life preferences through ePOLST</td>
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<tr>
<td>OMEAS 1.2.3</td>
<td>Percentage of adults who have documented end-of-life preferences through ePOLST</td>
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<td>OMEAS 1.2.4</td>
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<tr>
<td>OMEAS 1.2.5</td>
<td>Percentage of adults who have documented end-of-life preferences through ePOLST</td>
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<tr>
<td>OMEAS 1.2.6</td>
<td>Percentage of adults who have documented end-of-life preferences through ePOLST</td>
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<td>OMEAS 1.2.7</td>
<td>Percentage of adults who have documented end-of-life preferences through ePOLST</td>
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<td>OMEAS 1.2.8</td>
<td>Percentage of adults who have documented end-of-life preferences through ePOLST</td>
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<tr>
<td>OMEAS 1.2.9</td>
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<td>OMEAS 1.2.10</td>
<td>Percentage of adults who have documented end-of-life preferences through ePOLST</td>
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**BUDGET - 3 YRS**: $52,844,400

**APPENDIX B: AIMS AND INTERVENTIONS**

**Utah Health Innovation Plan 2013**
#### APPENDIX C: TRANSFORMATION TIMELINE

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tr>
<td>HIT</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>To support adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>To support adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>To support adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
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<tr>
<td>Authorizations and roles for governance</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
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<tr>
<td>Award contract to operate HIP</td>
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<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
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<tr>
<td>ARK2</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
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<td>CHW</td>
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<tr>
<td>Develop necessary infrastructure</td>
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<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
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<tr>
<td>Quality metrics</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
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<tr>
<td>Security</td>
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<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
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<tr>
<td>WHF</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
<td>Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.</td>
</tr>
</tbody>
</table>

**Infrastructure**

- **HIT**: Review the status of HIT infrastructure to assess accuracy, access, security, data availability.
- **ARK2**: Monitor the uptake, adoption and use of the CHW model within 12 months using real-time, actionable feedback.
- **CHW**: Implement most effective prevention and treatment strategies in need using SUDC/LMHPs, peer support and training, and evaluation. Enhance CHW relationships and connections within integrated care settings in need using SUDC/LMHPs, peer support and training, and evaluation. Enhance CHW relationships and connections within integrated care settings in need using SUDC/LMHPs, peer support and training, and evaluation.

**Quality metrics**

- **Security**: Develop a web-based SBIRT training supplement to live SBIRT training. Integrate mental, emotional and behavioral health services into provider practices.
- **WHF**: Increase funding to the GATE program. Increase funding to the GATE program. Increase funding to the GATE program.

**Security**

- **Security**: Implement state-wide CHW training curriculum and technical assistance methods to assist medical facilities with the proposed CHW model.
- **WHF**: Increase primary and behavioral health access in underserved areas by 35%. Increase primary and behavioral health access in underserved areas by 35%. Increase primary and behavioral health access in underserved areas by 35%.

**WHF**

- **WHF**: Increase the number of patients with chronic conditions and related risk factors.
- **WHF**: Increase primary and behavioral health access in underserved areas by 35%. Increase primary and behavioral health access in underserved areas by 35%. Increase primary and behavioral health access in underserved areas by 35%.

**ARCC**

- **ARCC**: Develop and enhance HIT tools to support VBP and AD implementation. Develop and enhance HIT tools to support VBP and AD implementation.
- **ARCC**: Develop and enhance HIT tools to support VBP and AD implementation. Develop and enhance HIT tools to support VBP and AD implementation.
- **ARCC**: Develop and enhance HIT tools to support VBP and AD implementation. Develop and enhance HIT tools to support VBP and AD implementation.

**Community Health Workers**

- **Community Health Workers**: Implement OMMI model in 4 population subsets. Implement OMMI model in 4 population subsets. Implement OMMI model in 4 population subsets.
- **Community Health Workers**: Implement OMMI model in 4 population subsets. Implement OMMI model in 4 population subsets. Implement OMMI model in 4 population subsets.
- **Community Health Workers**: Implement OMMI model in 4 population subsets. Implement OMMI model in 4 population subsets. Implement OMMI model in 4 population subsets.

**Healthcare Environment**

APPENDIX D: EVALUATION MATRIX

<table>
<thead>
<tr>
<th>OUTCOME MEASURE</th>
<th>DATA SOURCE</th>
<th>METHODS/PLAN FOR COLLECTION</th>
<th>FREQUENCY OF COLLECTION/UPDATE</th>
<th>RESPONSIBLE PARTY</th>
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<tr>
<td>Increased security</td>
<td>cHIE</td>
<td>Surveillance</td>
<td>Annually</td>
<td>UDOH</td>
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<tr>
<td>Improved awareness of end-of-life options and declaration of preferences</td>
<td>UHIN Survey Data, Interviews, Focus Groups</td>
<td>Semi-Annually</td>
<td>UHIN</td>
<td></td>
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<tr>
<td>Screening in children aged 8-18 for Substance Abuse</td>
<td>TBD</td>
<td>Surveillance</td>
<td>Annually</td>
<td>TBD</td>
</tr>
<tr>
<td>Use of radiographic imaging for pediatric head trauma age 2-12 in ED</td>
<td>APCD, State ED, IBIS</td>
<td>Surveillance</td>
<td>Annually</td>
<td>APCD, State ED, IBIS</td>
</tr>
<tr>
<td>Use of routine labs in ED and inpatient</td>
<td>State ED, IBIS</td>
<td>Surveillance</td>
<td>Annually</td>
<td>State ED, IBIS</td>
</tr>
<tr>
<td>Use of radiographic imaging for low back pain in first 6 weeks of pain</td>
<td>APCD, State ED, IBIS</td>
<td>Surveillance</td>
<td>Annually</td>
<td>APCD, State ED, IBIS</td>
</tr>
<tr>
<td>Use of radiographic imaging for pediatric head trauma age 2-12 in ED</td>
<td>State ED, IBIS</td>
<td>Surveillance</td>
<td>Annually</td>
<td>State ED, IBIS</td>
</tr>
<tr>
<td>Use of routine labs in ED and inpatient</td>
<td>State ED, IBIS</td>
<td>Surveillance</td>
<td>Annually</td>
<td>State ED, IBIS</td>
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**CONCLUSION:**

The evaluation matrix outlines various outcome measures that are critical to assessing the success of the VBP initiatives. The data sources, methods of collection, and frequency of updates are carefully planned to ensure accurate and timely assessment of the program's effectiveness. The responsible parties are specified to ensure accountability and effective implementation. This framework supports the ongoing improvement and refinement of the VBP strategies to better serve the community's needs.
### Glossary of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>AAUC</td>
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<td>ACO</td>
<td>Accountable Care Organization</td>
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<tr>
<td>ACS</td>
<td>American Community Survey</td>
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<tr>
<td>ADRC</td>
<td>The Utah Aging and Disability Resource Connection</td>
</tr>
<tr>
<td>ADRD</td>
<td>Alzheimer’s Disease and Related Disorders</td>
</tr>
<tr>
<td>ADSSP</td>
<td>Alzheimer’s Disease Supportive Services Program</td>
</tr>
<tr>
<td>AHEC</td>
<td>Area Health Education Center</td>
</tr>
<tr>
<td>AHRQ</td>
<td>Agency for Health Research and Quality</td>
</tr>
<tr>
<td>AoA</td>
<td>Administration on Aging</td>
</tr>
<tr>
<td>APCD</td>
<td>All Payer Claims Database</td>
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<tr>
<td>ARCHES</td>
<td>Advancing Rural Connections for Healthcare and E-Health Services</td>
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<tr>
<td>BRFSS</td>
<td>Behavioral Risk Factors Surveillance System</td>
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<tr>
<td>BW/EI</td>
<td>Baby Watch/Early Identification</td>
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<tr>
<td>CAHPS</td>
<td>Consumer Assessment of Health Provider &amp; Systems</td>
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<tr>
<td>CDSME</td>
<td>Chronic Disease Self-Management Education Programs</td>
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<tr>
<td>CDSMP</td>
<td>Chronic Disease Self-Management Program</td>
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<td>CHAI</td>
<td>Community Health Assessment Index</td>
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<tr>
<td>CHIC</td>
<td>Children’s Health Care Improvement Collaborative</td>
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<tr>
<td>CHIE</td>
<td>Clinical Health Information Exchange</td>
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<td>CHIPRA</td>
<td>Children’s Health Insurance Program Reauthorization Act</td>
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<td>CHW</td>
<td>Community Health Worker</td>
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<td>CM+</td>
<td>Care Management Plus</td>
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<td>Centers for Medicare and Medicaid Services</td>
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<td>CPPW</td>
<td>Communities Putting Prevention to Work</td>
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<tr>
<td>CSHCN</td>
<td>The Utah Children with Special Health Care Needs</td>
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<td>CWA</td>
<td>Common Wellness Agenda</td>
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<td>DAAS</td>
<td>The Utah State Division of Aging and Adult Services</td>
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<td>DHD</td>
<td>Utah Department of Human Services</td>
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<tr>
<td>DMHF</td>
<td>Division of Medicaid and Healthcare Financing</td>
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<td>DNR</td>
<td>Do not resuscitate</td>
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<td>Utah Division of Occupational &amp; Professional Licensing</td>
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<td>DSAMH</td>
<td>The Utah Division of Substance Abuse and Mental Health</td>
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<td>DSPD</td>
<td>Division of Services for People with Disabilities</td>
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<td>DWS</td>
<td>Utah’s Department of Workforce Services</td>
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<td>ECCS</td>
<td>The Early Childhood Comprehensive System Grant</td>
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<td>Early Childhood Statewide Data Integration Project</td>
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<td>ED</td>
<td>Emergency Department</td>
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<tr>
<td>EMS</td>
<td>Emergency Medical Services</td>
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<td>ENHAC</td>
<td>Electronic Healthcare Network Accreditation Commission</td>
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<td>EPG</td>
<td>Executive Policy Group</td>
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<td>EPCC</td>
<td>The Healthy Living through Environment, Policy and Improved Clinical Care</td>
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<td>ePOLST</td>
<td>Electric POLST Physician ordered life sustaining treatment</td>
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<td>FQHC</td>
<td>Federally Qualified Health Centers</td>
</tr>
<tr>
<td>GATE</td>
<td>Giving Access to Everyone</td>
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<td>GOED</td>
<td>Governor’s Office of Economic Development</td>
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<td>HAI</td>
<td>Healthcare-Associated Infections</td>
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<td>HAIWG</td>
<td>Healthcare-Associated Infection Work Group</td>
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<td>Utah’s Healthy Child Care Initiative</td>
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<td>HDC</td>
<td>Health Data Committee</td>
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<td>HEDIS</td>
<td>Healthcare Effectiveness and Data Information Set</td>
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<td>HIF</td>
<td>Health information exchange</td>
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<tr>
<td>HIPAA</td>
<td>Health Insurance Portability and Accountability Act</td>
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<tr>
<td>HIPUtah</td>
<td>Comprehensive Health Insurance Pool-Utah</td>
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<td>HIT</td>
<td>Health information technology</td>
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<td>HITELC</td>
<td>The Health Information Technology for Economic and Clinical Health</td>
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<td>HMO</td>
<td>Health maintenance organization</td>
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<td>HP2020</td>
<td>Healthy People 2020</td>
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<td>HPSA</td>
<td>Health Provider Shortage Area</td>
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<td>HRSA</td>
<td>This Health Resources and Services Administration</td>
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<tr>
<td>IBIS</td>
<td>Indicator-Based Information System</td>
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<tr>
<td>IBIS-PH</td>
<td>Indicator-Based Information System for Public Health</td>
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<td>IC3</td>
<td>Utah Improving Care through Connectivity and Collaboration</td>
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<td>IC/FID</td>
<td>Intermediate Care Facility/Intellectual Disabilities</td>
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<td>IH</td>
<td>Intermountain Healthcare</td>
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<td>IHCA</td>
<td>Intermountain Health Care</td>
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<td>LINC</td>
<td>Linking Information Necessary for Care</td>
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<td>LMHA</td>
<td>local mental health authority</td>
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<td>LMTs</td>
<td>licensed mental health therapist</td>
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<tr>
<td>LSAA</td>
<td>local substance abuse authority</td>
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<tr>
<td>LSAs</td>
<td>local substance abuse authorities</td>
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<tr>
<td>MCH</td>
<td>Maternal Child Health</td>
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<tr>
<td>MCO</td>
<td>Managed care organization</td>
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<tr>
<td>MEB</td>
<td>Mental, emotional, and behavioral</td>
</tr>
<tr>
<td>MEPS</td>
<td>Medical expenditure panel survey</td>
</tr>
<tr>
<td>MONAHRQ</td>
<td>My Own Network, Powered by AHRQ</td>
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<tr>
<td>MPI</td>
<td>Master Person Index</td>
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<tr>
<td>NAMI</td>
<td>National Association of Mental Illness</td>
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<td>NEDSS</td>
<td>National Electronic Disease Surveillance System</td>
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<td>NEMT</td>
<td>Non-Emergency Medical Transport</td>
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<tr>
<td>OHCS</td>
<td>Office of Health Care Statistics</td>
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<tr>
<td>OHC</td>
<td>The Office of the National Coordinator for Health Information Technology</td>
</tr>
<tr>
<td>PANO</td>
<td>Physical Activity, Nutrition and Obesity Program</td>
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</table>
GLOSSARY OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>PCN</td>
<td>Primary Care Network</td>
</tr>
<tr>
<td>PCP</td>
<td>Primary Care Provider</td>
</tr>
<tr>
<td>PHI</td>
<td>Protected health information</td>
</tr>
<tr>
<td>PIP</td>
<td>Parent Infant Program</td>
</tr>
<tr>
<td>POLARIS</td>
<td>Prehospital On-line Active Reporting Information System</td>
</tr>
<tr>
<td>POLST</td>
<td>Physician ordered life sustaining treatment</td>
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<tr>
<td>PPC</td>
<td>Preferred Primary Care Provider</td>
</tr>
<tr>
<td>PPCs</td>
<td>Provider Preventable Conditions</td>
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<td>PPO</td>
<td>Preferred Provider Organization</td>
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<td>PRAMS</td>
<td>Pregnancy Risk Assessment Monitoring System</td>
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<td>REC</td>
<td>Regional Extension Center</td>
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<td>ResDAC</td>
<td>Research Data Assistance Center</td>
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<td>RFP</td>
<td>Request for Proposal</td>
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<td>SAMSHA</td>
<td>Substance Abuse and Mental Health Services Administration</td>
</tr>
<tr>
<td>SBIRT</td>
<td>Screening, Brief Intervention, Referral to Treatment</td>
</tr>
<tr>
<td>SIM</td>
<td>State Innovation Model</td>
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<td>SL COUNTY</td>
<td>Salt Lake County</td>
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<tr>
<td>SMPI</td>
<td>Statewide-Master Patient Index</td>
</tr>
<tr>
<td>SOP</td>
<td>a standard operating procedures</td>
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## Mapping to SIM Terms and Conditions

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ACKNOWLEDGMENTS

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Utah Health Innovation Plan 2013