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# UTAH HEALTH INNOVATION PLAN

DECEMBER 30, 2013

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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. Subaims 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 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**

Population	3-yr NPV	5-yr NPV	Percentiles (5-yr NPV per person)		
	per person	per person	25th	50th	75th
Total	\$ 332	\$ 1,151	\$ 840	\$ 1,152	\$ 1,467
Medicare	\$ 287	\$ 1,066	\$ 474	\$ 1,069	\$ 1,664
Medicaid	\$ 256	\$ 949	\$ 449	\$ 956	\$ 1,452
Dual-Eligible	\$ 1,589	\$ 5,435	\$ 1,145	\$ 1,579	\$ 2,024
CHIP	\$ 48	\$ 182	\$ 125	\$ 176	\$ 238
Private	\$ 363	\$ 1,232	\$ 836	\$ 1,240	\$ 1,636

**Plan Overview**

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

*Section II. Utah Health Innovation Vision, Mission and Aims*

This section outlines the vision and mission of the Plan, the policy mechanism for their development and the resulting aims and interventions.

*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 Greg Bell, Chair (April-Nov)

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 (April-Nov)

Ann Williamson, 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, Harmons Grocery Stores

Gregory J. Jones, Pharmacy Director, Harmons Grocery Stores

Ben McAdams, Salt Lake County Mayor

Charles Sorensen, 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:

- how the transformation to a value-based system will be implemented based on those aims
- how that process will be evaluated to assure that the aims are being met,
- the costs to implement the Plan and
- potential cost savings of the Plan to the health system.

### 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 benefit 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 American 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 re-

sult, 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

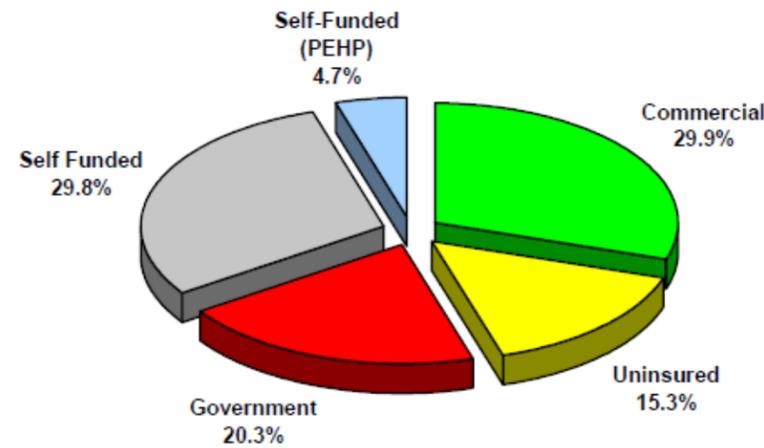
\* Respondents can select all that apply and therefore may choose more than one type of coverage. This means that the sum of the percentages above will total to 100%.

#### 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.

**Figure 1. Estimate of Health Insurance Coverage for 2010**



**Data Sources:** Centers for Medicare & Medicaid Services, Deseret Mutual Benefit Administrators, Utah Comprehensive Health Insurance Pool, Public Employee Health Program, Utah Department of Health, Utah Insurance Department, Utah Population Estimates Committee, and the U.S. Census Bureau.

**Note:** The estimate of the 2010 employer sponsored self-funded membership is based on limited data from commercial insurers and employers. It is not a complete count of the self-funded membership in Utah and should be used with caution. Estimates may not total exactly due to rounding and differences in methodology.

**Table 2. Detailed Estimate of Health Insurance Coverage**

Coverage Type	Population Estimate	Percent of Population
<b>Government Sponsored Plans</b>	563,964	20.3%
Medicare	280,838	10.1%
Medicaid	221,954	8.0%
Children's Health Insurance Program (CHIP)	42,068	1.5%
Primary Care Network (PCN)	14,946	0.5%
Utah Comprehensive Health Insurance Pool (HIPUtah)	4,158	0.1%
<b>Employer Sponsored Self-Funded Plans</b>	958,235	34.5%
Plans Administered by Commercial Insurers	507,147	18.3%
Public Employee Health Program (PEHP)	130,214	4.7%
Federal Employee Health Benefit Plan (FEHBP)	100,861	3.6%
Other Known Self-Funded Plans	62,227	2.2%
Other Self-Funded Plans (Estimated)	157,786	5.7%
<b>Commercial Health Insurance Plans</b>	830,530	29.9%
Group	691,345	24.9%
Individual	139,185	5.0%
<b>Uninsured</b>	421,934	15.3%
<b>Total</b>	<b>2,774,663</b>	<b>100.0%</b>

**Data Sources:** Centers for Medicare & Medicaid Services, Deseret Mutual Benefit Administrators, Utah Comprehensive Health Insurance Pool, Public Employee Health Program, Utah Department of Health, Utah Insurance Department, Utah Population Estimates Committee, and the U.S. Census Bureau.

**Note:** The estimate of the 2010 employer sponsored self-funded membership is based on limited data from commercial insurers and employers. It is not a complete count of the self-funded membership in Utah and should be used with caution. Estimates may not total exactly due to rounding and differences in methodology.

• 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**

Plan type	Member Count	Market Share
Fee for Service	28,097	7.44%
Preferred Provider Organization	269,521	28.79%
Health Maintenance Organization	170,008	21.98%
HMO with Point of Service features	362,904	41.79%
<b>Total</b>	<b>830,530</b>	<b>100.00%</b>

**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*<sup>1</sup>. 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. The state as a whole is well below the national average; however, there is great variation in drinking rates between local health districts.

• **Substance Abuse in Adolescents: Marijuana Use:** 9.6% of Utah high school students reported having used marijuana at least once in the past 30 days in 2011. The state as a whole is well below the national average; however, marijuana use among high school students in Utah has increased since 2005.

• **Physical Activity: Recommended Levels Among Adults:** 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
- Individuals with lower household income
- 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 Adults:** In 2010, nearly one in four Utah adults were obese (24.0%) and about two-thirds (59.7%) were at an unhealthy weight. These rates increased from 10.5% and 39.3%, respectively, in 1989. In 2011, using the new BRFSS methodology that includes cell phones, an estimated 24.4% (crude rate) of Utah adults were obese. The obesity prevalence for U.S. adults in 2011 was 27.3%. Utah has actually met the US HP2020 target of 30.6% for this measure. The Utah target is 24.0%. At risk populations include:

- Individuals without less formal education
- Individuals with lower household income
- American Indians/AK Natives
- Blacks/African Americans

- Native HIs/Pacific Islanders
- Hispanic/Latinos

• **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 public 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<sup>2</sup>**

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 - PM<sub>2.5</sub>:** 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. At risk populations include:

- Older Individuals
- Non-Hispanic Whites

• **Stroke (Cerebrovascular Disease) Death Rate:** In 2010 there were 35.2 stroke deaths per 100,000 population, which is just slightly above the HP2020 target and similar to the US rate. The stroke death rate has declined in the last 30 years for both the U.S. and Utah. At risk population:

- Older adults

• **Alzheimer's Disease Death Rate:** In Utah there was 18.7 deaths per 100,000 population from Alzheimer's disease in 2010 which is lower than the US rate. However, Utah has the second highest growth rate of Alzheimer's disease prevalence in the country.

• **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

• **Drug Overdose and Poisoning Incidents:** From 2001 to 2007, Utah saw a 97.4% increase in age-adjusted poisoning death rates. In proper use of prescription pain medications is the underlying cause for many Utah poisoning deaths. In 2007, the latest year with comparable data, Utah’s age-adjusted poisoning death rate of 21.4 per 100,000 population exceeded the U.S. poisoning death rate of 13.2 per 100,000.

• **Suicides:** The 2010 Utah age-adjusted suicide rate was 17.0 per 100,000 population. Utah’s suicide rate has been consistently higher than the national rate. From 2004 to 2008, according to the National Center for Health Statistics, Utah’s rate was 15.2 per 100,000 population compared to the U.S. rate of 11.2 per 100,000 population. Utah’s rate exceeds the US HP2020 target of 10.2 deaths/100,000. At risk populations include:

- Males
- Non-Hispanic Whites
- 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 9.1 cases per 100,000 in the US. 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 2.3 reported cases per 100,000 population of syphilis in 2010, an increase from 2009 (1.2 cases per 100,000). The rate of syphilis in Utah has consistently been below the national rate; however the Utah rate has been on the rise since 2007. At risk population:

- Males

• **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:

- Individuals with lower household income
- Individuals with lower levels of formal education
- Young adults
- 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:

- Individuals with lower household income
- Young adult males
- Unemployed individuals
- American Indians/AK Natives
- Asians
- Blacks/African Americans
- 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:

- 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:

- Male children
- Adolescents
- People 65+
- 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:

- 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:

- 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:

- Older individuals
- Asians
- 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 2,595 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 part of a national effort 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 Health-care, 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 HIE 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 cHIE in Utah will make significant inroads in our goals to reduce the cost of care while improving the quality. The cHIE could also provide the infrastructure for quality reporting to measure improvement and support VBP. 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 Medicaid 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<sup>3</sup>**

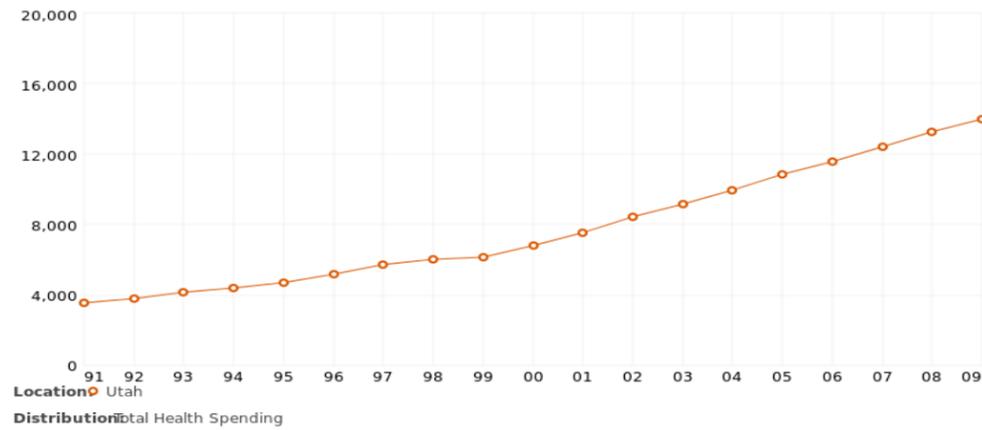
Over the last ten years, there have been four significant trends in the comprehensive health insurance market that the Utah Insurance Department continues to monitor:

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.

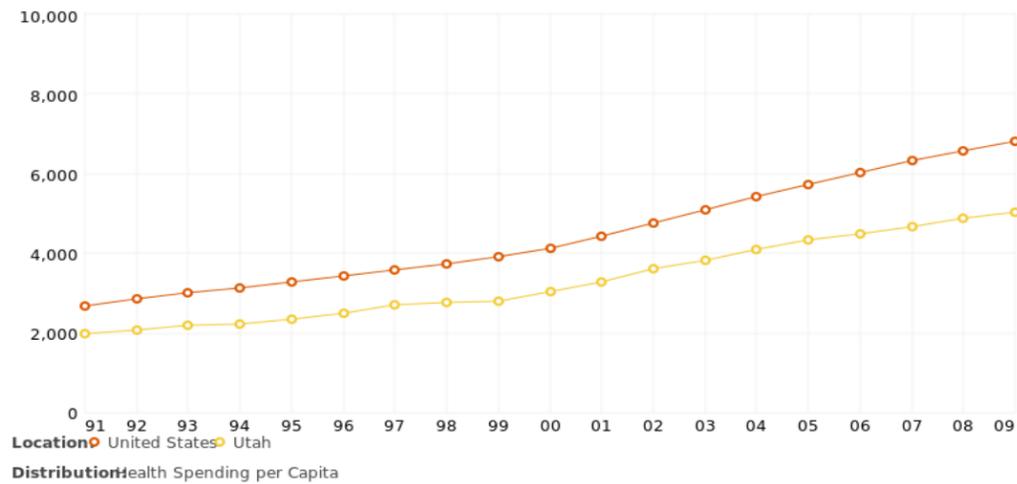
**Figure 2. Total Healthcare Expenditures (in millions), Utah, 1991-2009**



*Sources*

Centers for Medicare & Medicaid Services (2011). **Health Expenditures by State of Residence** Retrieved (December 2011) at <http://www.cms.gov/NationalHealthExpendData/downloads/resident-state-estimates.zip>.

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



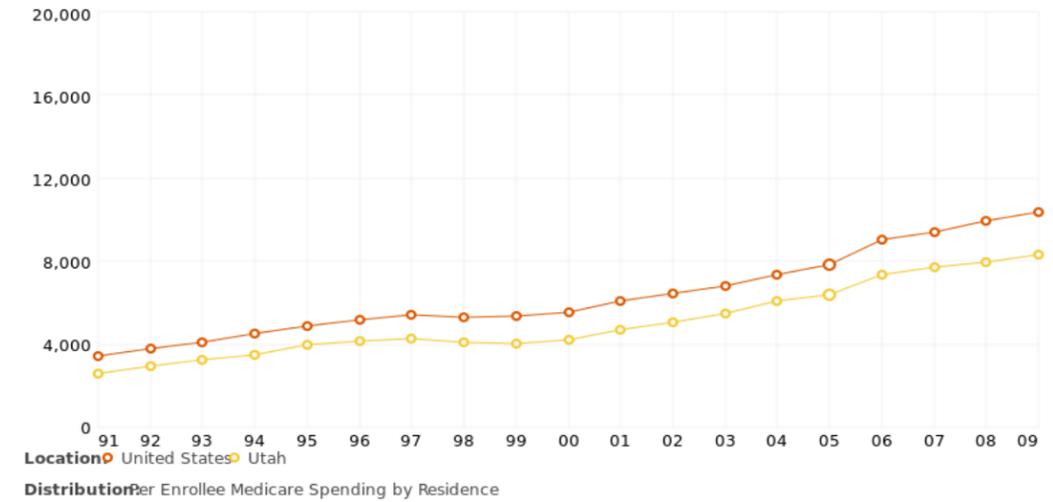
*Sources*

Centers for Medicare & Medicaid Services (2011). **Health Expenditures by State of Residence**. Retrieved (December 2011) at <http://www.cms.gov/NationalHealthExpendData/downloads/resident-state-estimates.zip>.

**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**

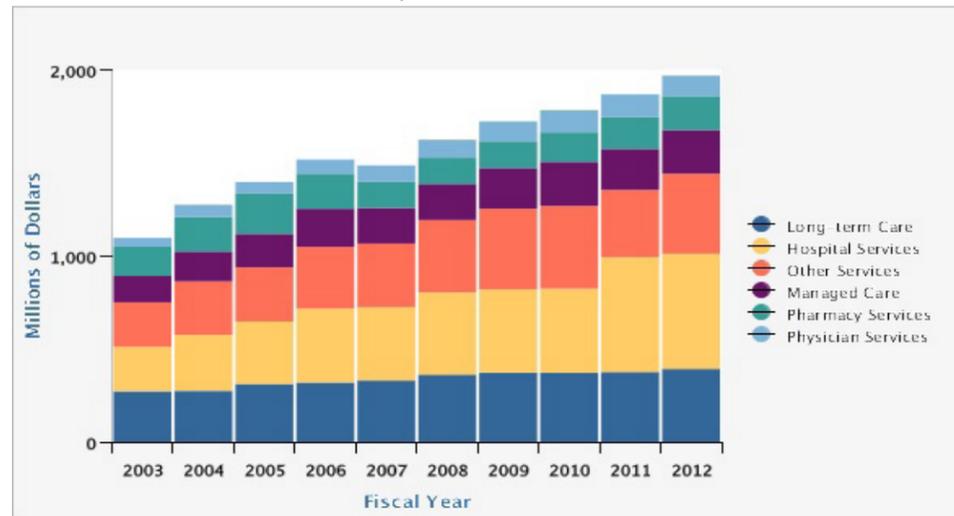


**Medicaid**

- 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.

**Figure 5. Total Medical Assistance Expenditures by Service Category and Fiscal Year, Utah, FY 2003-FY 2012**



**Data Source:** Division of Medicaid and Health Finance, UDOH

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. Reference: Medicaid Inflation. Retrieved on November 11, 2013 from the UDOH’s Center for Health Data and Informatics, Indicator-Based Information System for Public Health website: <http://ibis.health.utah.gov/indicator/view/MedInfl.HospCare.html>

## 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 Scope, the Commonwealth Fund's 'State Scorecard on Health System Performance 2009' ranked Utah 19<sup>th</sup> 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 Scope, 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 efforts as does the Utah Hospital Association.

- Nosocomial infections, also known as Healthcare-Associated Infections (HAIs) pose a significant burden on patients. A Healthcare-Associated Infection Work Group (HAIWG) was established to provide recommendations for surveillance prevention of HAIs in Utah hospitals. In addition, in 2008 Utah Administrative Code R386-705 was implemented requiring hospitals to report Central Line-Associated Blood Stream infections and influenza vaccinations of their employees. House Bill 55: Healthcare-Associated Infections passed in 2012 and makes it mandatory for hospitals and ambulatory surgical centers to report selected infections the UDOH
- In July 2011 the Utah Medicaid program issued an emergency rule similar to what was occurring in Medicare at the national level. In this rule, Medicaid has determined that it will no longer pay for Provider Preventable Conditions (PPCs).
- 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*<sup>4</sup> 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 when 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*<sup>5</sup> 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.

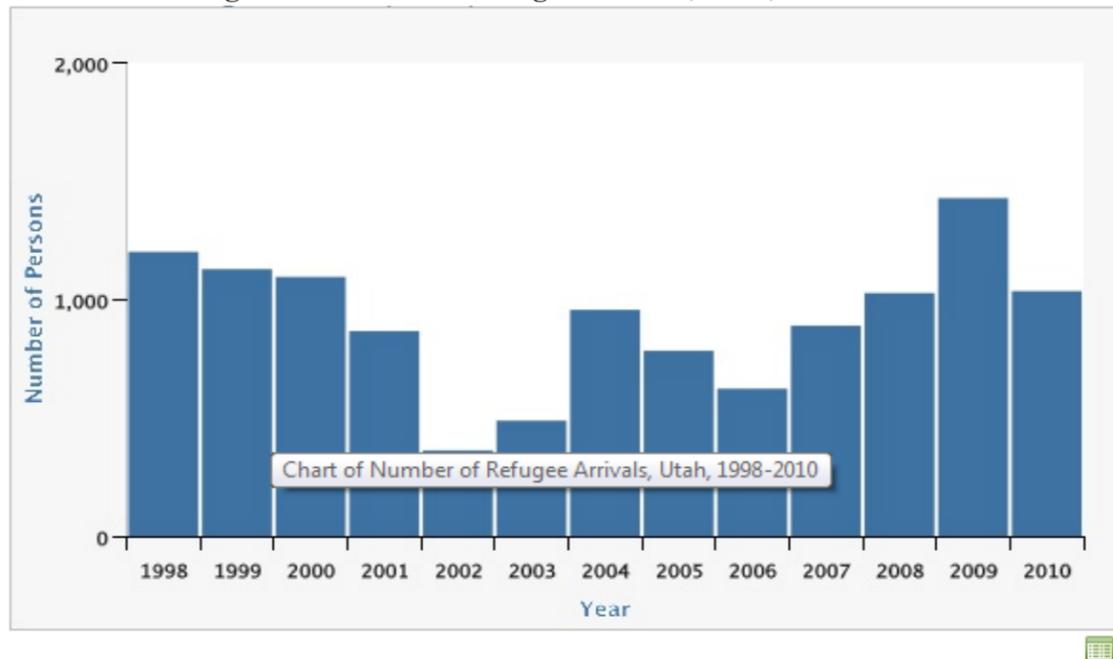
MONAHRQ, standing for "My Own Network, Powered by AHRQ", is a comprehensive web development tool provided by the federal Agency for Healthcare Research and Quality (AHRQ), utilized by the Office of Healthcare Statistics (OHCS) in producing a more effective and efficient hospital comparison report. The 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**



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

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.

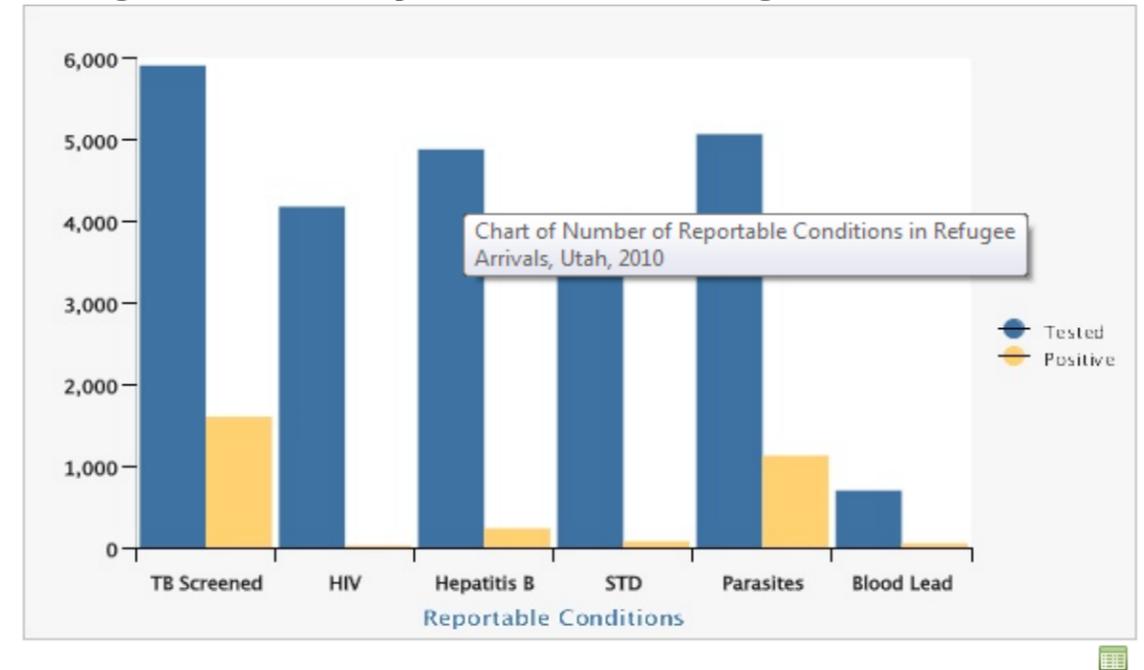
Health Screening compliance and TB Screen Follow-up:

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**



**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

- 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<sup>6</sup>, 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 (SAMHSA), the Agency for Healthcare Research and Quality (AHRQ), the

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

### **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.*

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 care givers, 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<sup>7</sup>.

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 stakeholders 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

federal funding from The Beacon Community Cooperative Agreement Program.

- The Utah Aging and Disability Resource Connection (ADRC) is administered by the Commission. In the last year the ADRC hired a dedicated Medicaid Outreach Worker.

#### Administration for Community Living and the ADRC

- The Administration for Community Living and Veteran Health Administration joint program, Veteran Directed Home and Community Based Services, provides Veterans the opportunity to self-direct their long-term supports and services to enable them to avoid institutionalization. In Utah, the ADRC provides facilitated assessment, care and service planning, arranges fiscal management services, and provides ongoing options counseling and support to Veterans.
- The Commission’s Senior Housing Workgroup is sharing information that could encourage municipal decision-making about the location and types of senior housing permitted.
- Utah’s Advance Health Care Directive form is established in statute. The form and accompanying information is available online.

#### Utah Residents with Disabilities<sup>8</sup>

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

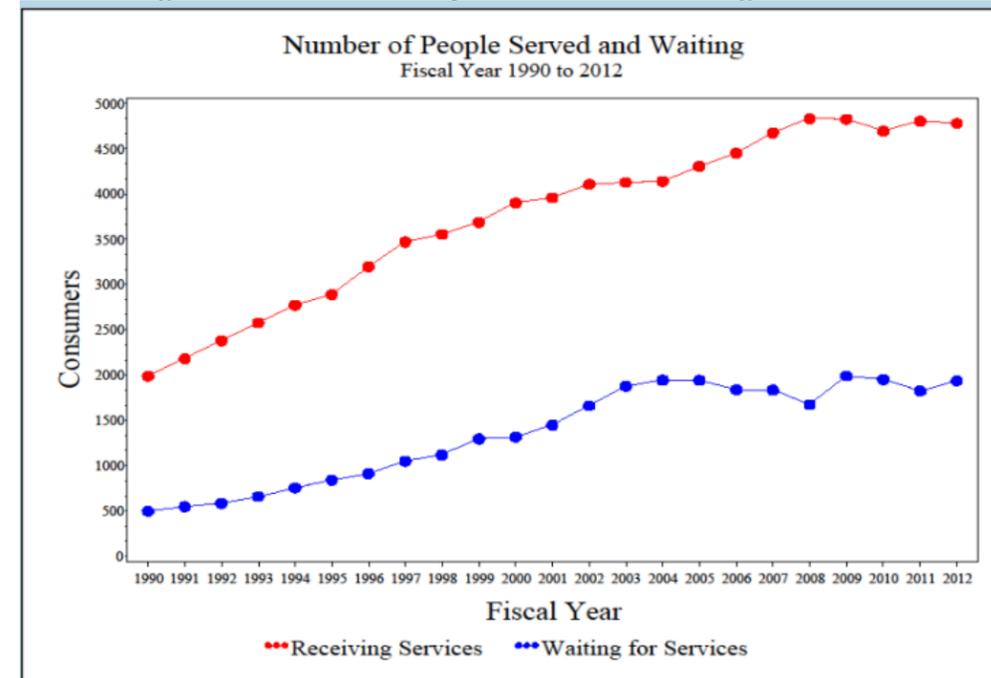
- 15.6% received services due to a condition related to an intellectual disability
- 3.2% received services due to a physical disability
- 2.5% received services due to an acquired brain injury

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.

**Figure 8. Number of People Served and Waiting, Fiscal Year 1990-2012**



#### Deaf and Blind Utah Residents<sup>9</sup>

The Utah Schools for the Deaf and the Blind (USDB) has been serving students with sensory impairments throughout Utah for over 100 years! Utah Code authorizes the Utah Schools for the Deaf and the Blind (USDB) to provide services to children with sensory disabilities beginning at birth through twenty-one. The USDB is unique among the nation’s state school systems for children with sensory disabilities. Until recently, USDB had been the only state program that provided families with comprehensive services in all educational settings and placements from birth through age 21. USDB was also the only state school for the deaf that gives families language and communication choices and provides service from birth through post high school transition. Within the past few years other states have begun to implement programs and components similar to Utah.

USDB serves children who are deaf, blind, or both through three different service patterns:

1. Early intervention provided to infants and toddlers through the Parent Infant Program (PIP),

2. Classroom programs provided to school-age students at USDB campuses or USDB magnet schools housed in local school districts,
3. Itinerant/Outreach services provided to children in their neighborhood school or charter school.

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 Tribes of Utah, Consultation Policy* in order to better achieve mutual goals through improved consultation process between their sovereign governments.

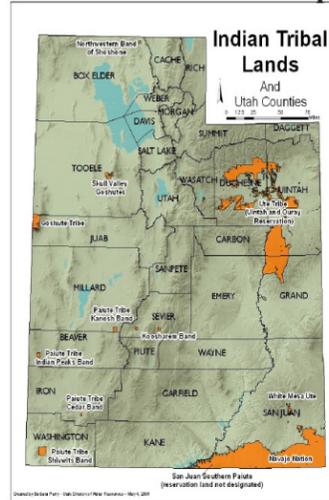
Utah American Indians share many health issues with all Utahns, but also have health problems and strengths unique to their communities. Tribal lands are located in rural and frontier areas of Utah, but urban Salt Lake County has the highest number of American Indians.

- 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.

**Figure 9. Utah Tribal Land Map**



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

Grant Name	Description
Infants & Toddlers with Disabilities (BW/EI) Part C of the Individuals with Disabilities Act	The program provides early identification and developmental services for families of infants and toddlers, birth to age three. These services are provided through the coordinated effort of parents, community agencies, and a variety of professionals. Places where services are provided include Baby Watch centers, home, and community settings such as child care.
Refugee Preventive Health	Through this grant, the UDOH provides comprehensive health and dental evaluation and related services to refugees arriving in Utah.
NEDSS (National Electronic Disease Surveillance System)	This grant funds a UDOH initiative to develop an open source software epidemiologic and disease surveillance system (UT-NEDSS).
Behavioral Risk Factor Surveillance System (BRFSS) Grant	UDOH has conducted this vital public health surveillance system in-house since it began in 1984. Data for Utah can be analyzed for local health districts, counties and Utah Small Areas. The BRFSS provides data to track population health risk behaviors and outcomes.
Master Person Index (MPI) Grant	UDOH receives some funding through this grant for the creation of the statewide MPI. The project is based at the University of Utah. Other partners include Intermountain Healthcare and the Utah Health Information Network.
Community Transformation Grant	UDOH received a \$499,366 planning award to build capacity to support healthy lifestyles in the entire state of Utah minus large counties, an estimated population of 1,200,000 including a rural population of over 300,000. Work is targeting tobacco-free living, active living and healthy eating, and quality clinical and other preventive services.
The Early Childhood Comprehensive System (ECCS) Grant	This Health Resources and Services Administration (HRSA) grant is helping Utah build and integrate early childhood service systems that better meet the needs of children and families through the Early Childhood Statewide Data Integration Project (ECDIP) Utah. Several early childhood programs and agencies are already participating in the data integration effort.
Affordable Care Act - Maternal, Infant and Early Childhood Home Visiting Program	The program 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. It focuses on communities identified as being high risk resulting from social, environmental and health factors that contribute to poor outcomes for young children and their families
Health Information Technology (HIT) ARRA (Electronic Health Records)	Utah Medicaid is participating in the Medicaid Health Information Technology (HIT) Incentive Payment Program. This program is supported through the Centers for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator for Health Information Technology (ONC), as part of the American Recovery and Reinvestment Act of 2009.
Communities Putting Prevention to Work (CPPW)	CPPW funded Utah's Healthy Child Care Initiative (HCCI) from 2/2010-8/2012. HCCI was a project of the Utah Physical Activity, Nutrition and Obesity Program (PANO). A HCCI Advisory Committee consisting of many diverse partners developed a comprehensive program to address obesity, called the Targeting Obesity in Preschool/Child Care Settings (TOP Star) Program. CPPW funding also supported the integration of tobacco cessation and smoke-free environments in state-funded mental health and substance abuse treatment facilities, and strengthened state tobacco quit line capacity.

Grant Name	Description
Health Information Exchange (HIE) Cooperative	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.
Beacon Communities Grant	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.
CHIPRA Quality Demonstration Grant	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.
Public Health Informatics Grant	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.
EPICC – Healthy Living through Environment, Policy and Improved Clinical Care	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.
Alzheimer’s Disease Supportive Services Program (ADSSP) grants from the Administration on Aging (AoA).	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.
Youth Risk Behavior Survey (YRBS)	UDOH receives funding in order to conduct this paper/pencil survey of students in grades 9-12 in selected Utah public high schools.
State Partnership Program to Improve Minority Health	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.
Pregnancy Risk Assessment Monitoring System (PRAMS)	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.
Utah State Office of Rural Health and the State Primary Care Offices grants	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

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

Utah Medicaid Waiver Summary		
Waiver Type	Waiver Name	Summary

1115	Primary Care Network	Operating authority for nontraditional Medicaid (over 21, 000 adults), PCN (average of 19,000 adults), and Utah Premium Partnership (UPP) (over 200 adults and 500 children). Adults are funded through Title XIX (Medicaid). Children are funded through Title XXI (CHIP).
1915b	Choice of Health Care Delivery Program & Hemophilia Disease Management Program	Operating authority to allow Medicaid to require traditional Medicaid clients living in Davis, Salt Lake, Utah, and Weber counties to select a health plan that provides services in accordance with the program’s waiver. Under this authority health plans operate as managed care organizations (MCOs) - known in Utah as accountable care organizations (ACOs). In addition, this is the operating authority to allow Medicaid to contract with a Utah licensed pharmacy for the provision of anti-hemolytic factors to Utah’s Medicaid clients with hemophilia.
1915b	Prepaid Mental Health Plan	This waiver allows Medicaid to mandatorily enroll most Title XIX recipients in 27 counties in this plan. Contracted mental health centers provide services covered under the waiver on an at-risk capitation basis.
1915b	Non-emergency Medical Transp.	This waiver allows Medicaid to award a NEMT contract upon following the RFP process. The awarded contract serves the entire state of Utah with the exception of carved out NEMT Contracts with four American Indian tribes. Reimbursement is capitated based on traditional Medicaid enrollment monthly.
1915c	Technology Dependent, Medically Fragile	Offers the choice of home and community-based alternatives for technology dependent, medically fragile individuals with complex medical conditions, who would otherwise require placement in a Medicaid enrolled nursing facility to obtain needed services (the costs of which would be borne by Medicaid). The waiver operates statewide, and serves a maximum of 120 recipients at any point in time.
1915c	“Community Supports Waiver (#0158)”	Program serves over 4,400 individuals with intellectual disabilities in home and community-based settings as an alternative to institutional care in an intermediate care facility for people with intellectual disabilities (ICF/ID). The operating agency is DHS, Division of Services for People with Disabilities.
1915c	Aging Waiver (#0247)	Program serves nearly 600 individuals over the age of 65 in home and community-based settings as an alternative to institutional care in a nursing facility. The operating agency is DHS, Division of Aging and Adult Services.
1915c	“Acquired Brain Injury Waiver (#0292)”	Program serves approximately 100 individuals with acquired brain injuries in home and community-based settings as an alternative to institutional care in a nursing facility. The operating agency is DHS, Division of Services for People with Disabilities.
1915c	“Physical Disabilities Waiver (#0331)	Program serves approximately 120 individuals with physical disabilities in home and community-based settings as an alternative to institutional care in a nursing facility. The operating agency is DHS, Division of Services for People with Disabilities

Waiver Type	Waiver Name	Summary
1915c	New Choices Waiver (#0439)	Program serves approximately 1000 people who were nursing facility residents or residents of licensed assisted living facilities for 180 days or more immediately prior to enrolling in the waiver. The program provides services to these individuals in home and community-based settings as an alternative to institutional care in a nursing facility. The operating agency is the state Medicaid agency.
1915c	Medicaid Autism Waiver (#1029)	Program serves approximately 250 children between the ages of 2 through 6 who have been diagnosed with an autism spectrum disorder. Services are provided in home and community-based settings as an alternative to institutional care in an intermediate care facility for individuals with intellectual disabilities (ICF/ID). The operating agency is DHS, Division of Services for People with Disabilities.

#### 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 safety) work group and supported 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 rationale 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 (HITECH) 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 based 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 work-force 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 neighborhood. 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. 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. 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.

## 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 life<sup>10</sup>. 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

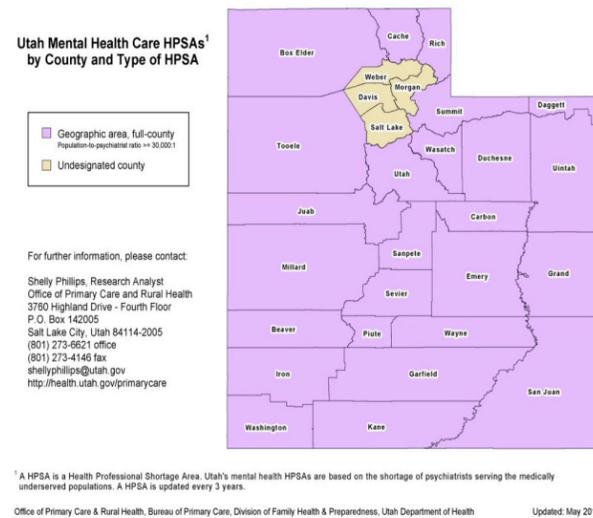
Like most states, Utah is developing a program to improve communications between patients with advanced illness, their families, and health providers – a means that allows frail patients to request or refuse certain measures such as resuscitation. Unlike most states, Utah's will be an electronic system, 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)<sup>9</sup>.

Figure 10. Utah Mental Health Care HPSAs by County and Type of HPSA



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<sup>11</sup>.

Figure 11. Utah Mental Health/ Alcohol Diagnoses Discharges

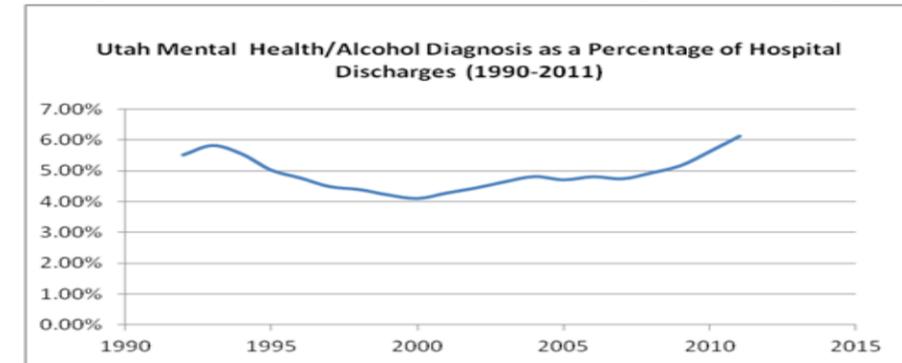
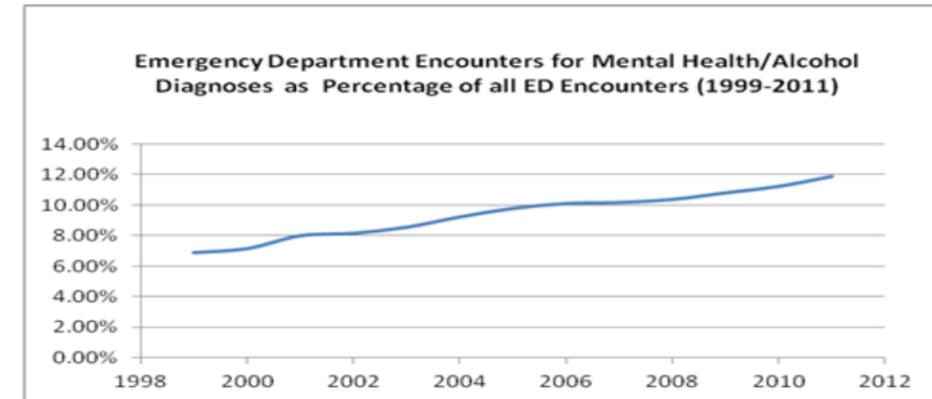


Figure 12. Utah Emergency Department Encounters for Mental Health/ Alcohol Diagnoses

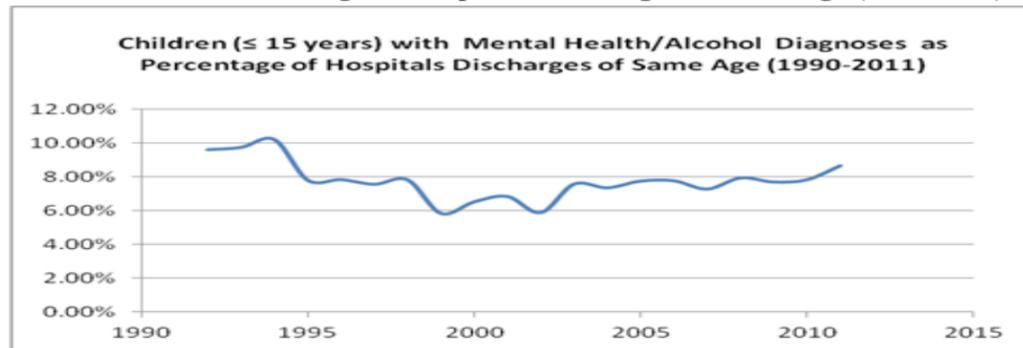


The prevalence of mental disorders in children and adolescents is high; one in four to five adolescents in the general population experience disorders that result in severe impairment<sup>12</sup>. It is well established that there is an insufficient number of child and adolescent psychiatrists and other pediatric mental health providers to provide mental health treatment for all children who need it<sup>13</sup>. Currently, most children with a mental illness do not receive any treatment<sup>14</sup>, and most in the general population who do receive treatment are treated by primary care providers<sup>15</sup>. Providing mental health treatment in primary care has been shown to decrease stigmatization<sup>16</sup>, and has also been associated with enhanced clinical outcomes and higher patient satisfaction<sup>17</sup>. 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<sup>18</sup>. 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<sup>19</sup>. 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.<sup>20</sup>

When looking at children under the ages of 15 or younger, the percentage of hospital discharges has been steadily increasing since 2003 (Figure 13)<sup>21</sup>. This indicates additional need for psychiatric behavioral health services to our most vulnerable populations.

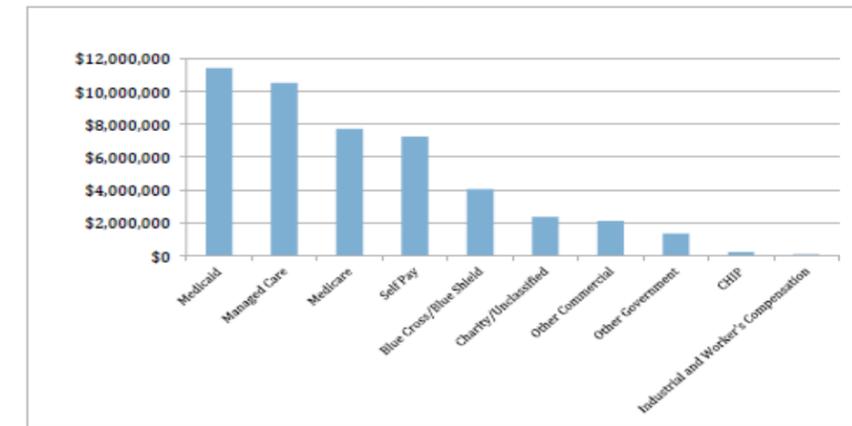
**Figure 13. Children with Mental Health/ Alcohol Diagnoses as Percentage of Hospitals Discharges of Same Age (1990-2011)**



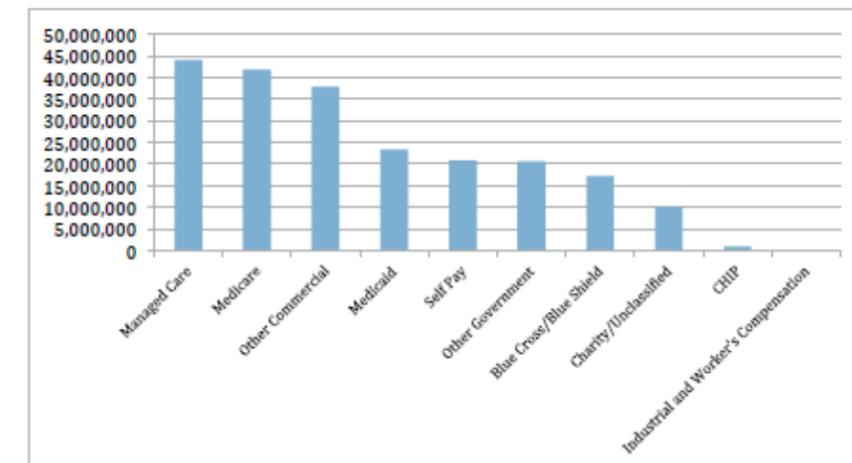
Working to address limited access to psychiatrists, a pilot project was created to improve access to pediatric mental health services in Utah. This early pilot project is known as GATE Utah, *Giving Access to Everyone*, a novel, web-based consultation model. Their goals are to improve access to mental 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<sup>22</sup>.

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 than 25% of the 29 counties (Figures 16, 17)<sup>23</sup>.

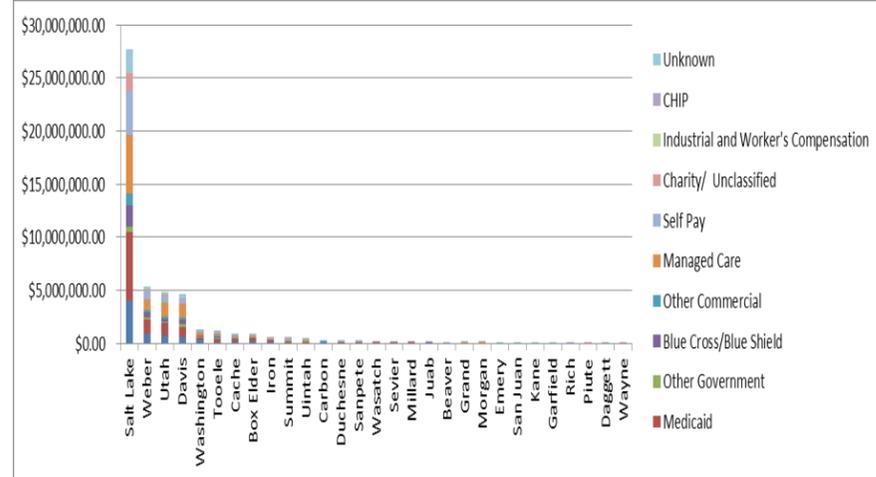
**Figure 14. Utah 2011 Expenditures for ED visits for ASC visits**



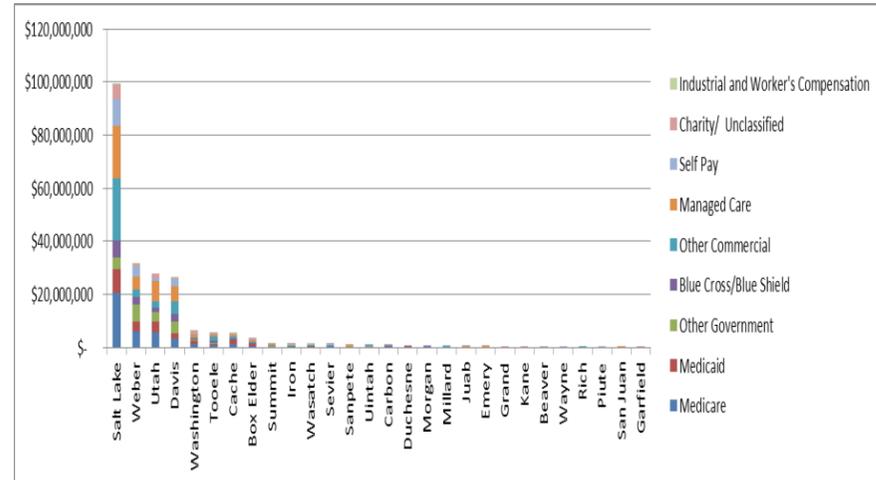
**Figure 15. Utah 2011 Expenditures- Inpatient Hospitalizations**



**Figure 16. Utah 2011 Expenditures for ASC (treat and release) by County**



**Figure 17. Utah 2011 Expenditures for Hospitalizations by County**



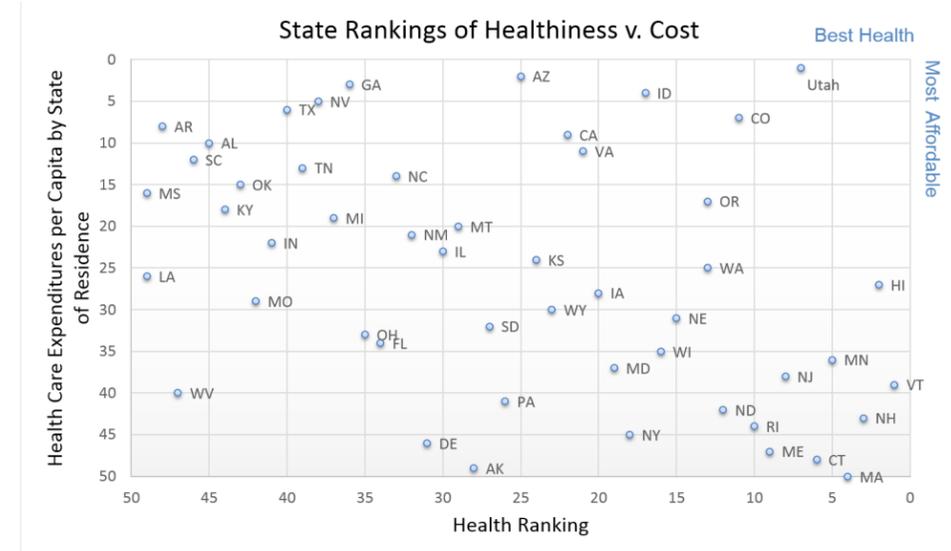
**C. Workforce Development**

**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 6<sup>th</sup> in the nation in health in 2012<sup>24</sup>, 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<sup>25</sup>. (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](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.

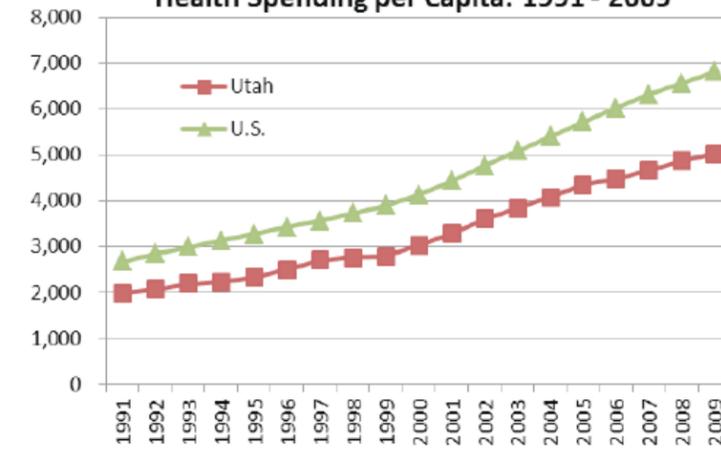
**Figure 18. Healthcare Value**



Source: Healthiness – United Health Foundation, 2012; Total Health Cost – Kaiser Family Foundation, 2009

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.

**Figure 19. Healthcare Spending UT vs. US**  
**Health Spending per Capita: 1991 - 2009**



Source: Kaiser Family Foundation

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.

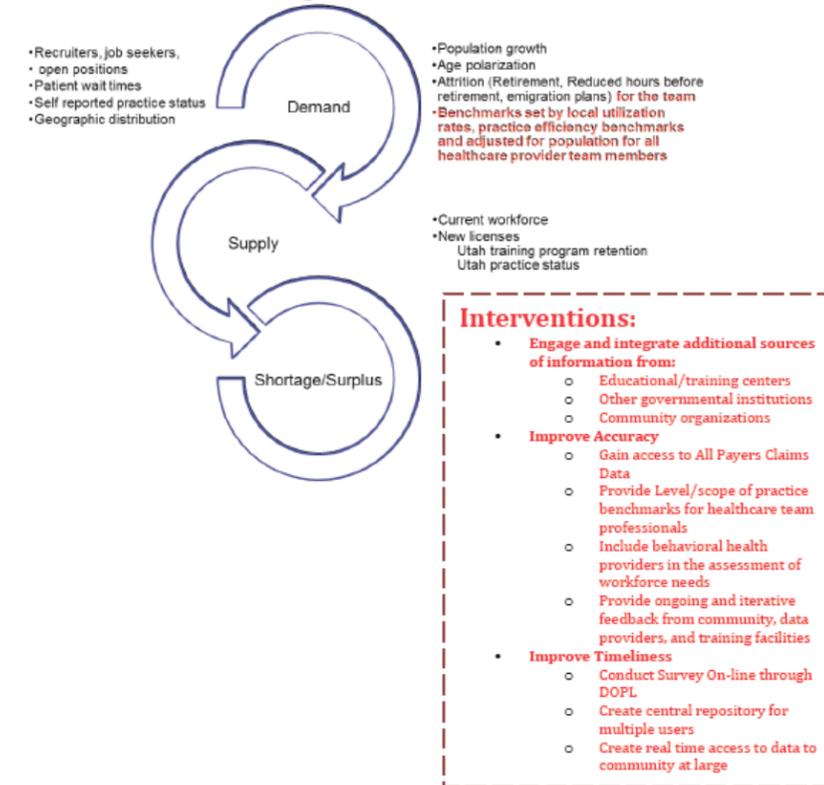
Figure 20 illustrates the current functioning of the workforce surveillance system with proposed recommendations and interventions (red text) for a revised model<sup>26</sup>.

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<sup>27</sup>. 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)<sup>28</sup>. Twenty-three of 29 counties in Utah were found to have some form of Primary Care Health Professional Shortage Area (HPSA) designation (Figure 23)<sup>29</sup>.

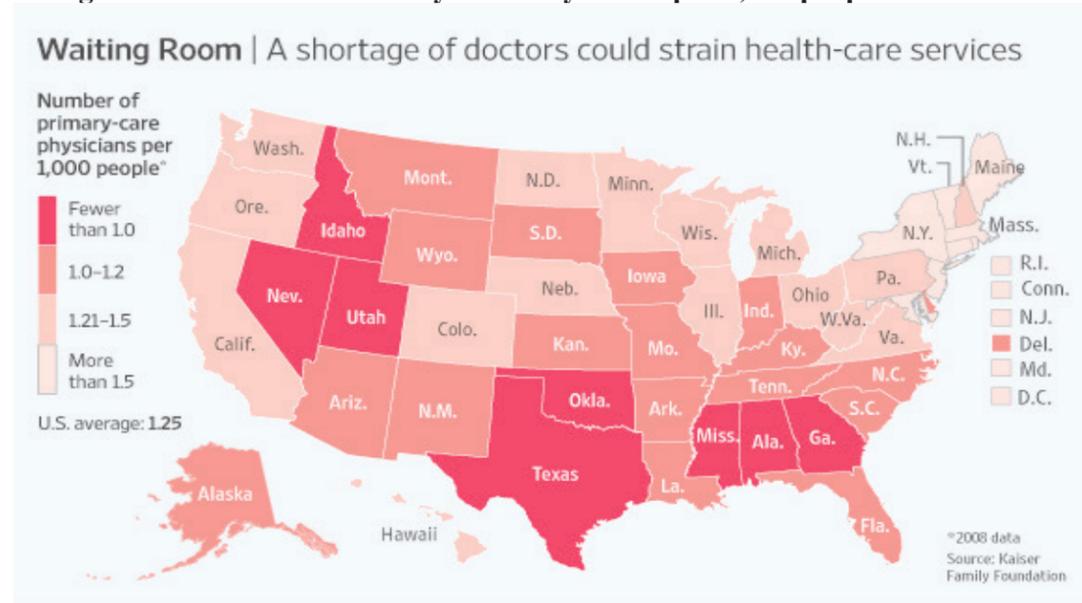
The Council concluded that Utah would need 332 physicians each year to replace retiring physicians, to adjust for the growing population, and to meet the increasing needs of an aging population<sup>30</sup>.

**Figure 20. Workforce Surveillance Model**

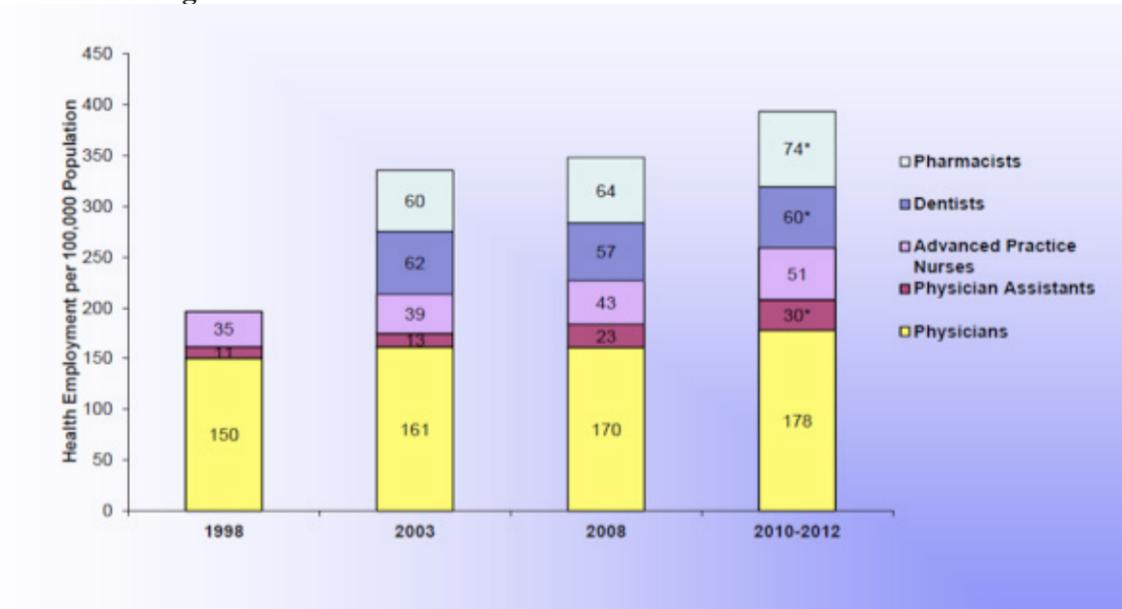


As previously mentioned, current approaches to healthcare workforce surveillance reflect past methodologies rather than the future of an interdisciplinary, team-based and collaborative practice approach. Current methodologies are often siloed structures and approaches, assume a traditional delivery market 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.

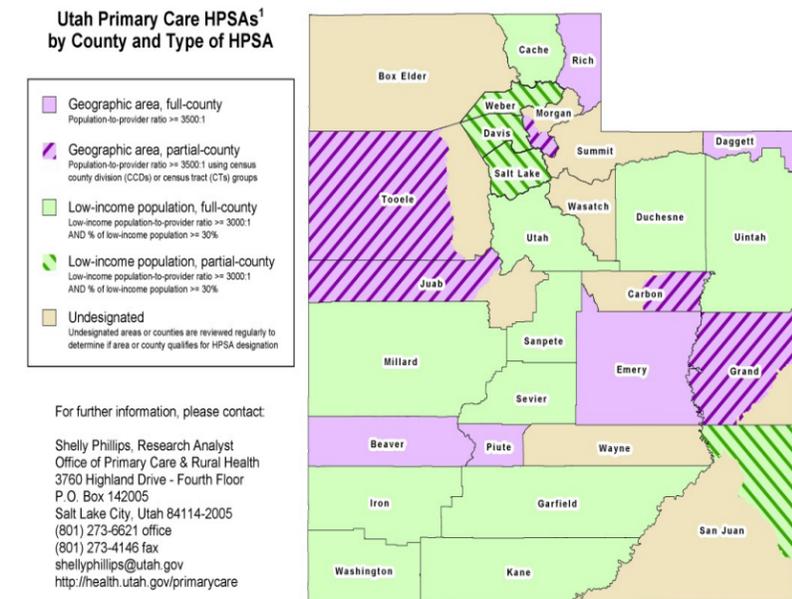
**Figure 21. Number of Primary Care Physicians per 1,000 people**



**Figure 22. Utah Healthcare Provider Workforce Mix**



**Figure 23. Utah Health Provider Shortage Area (HPSA)**



<sup>1</sup> A HPSA is a Health Professional Shortage Area. A primary care HPSA is a measure of the shortage of primary care providers serving the medically underserved in a county, a group of census county divisions, or a group of census tracts. A HPSA is updated every 3 years.  
Office of Primary Care & Rural Health, Bureau of Primary Care, Division of Family Health & Preparedness, Utah Department of Health  
Updated: May 2013

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)<sup>31</sup>.

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

Rural Practice	
Physicians	12%
PA	7%
APRN	10%
RN	9%

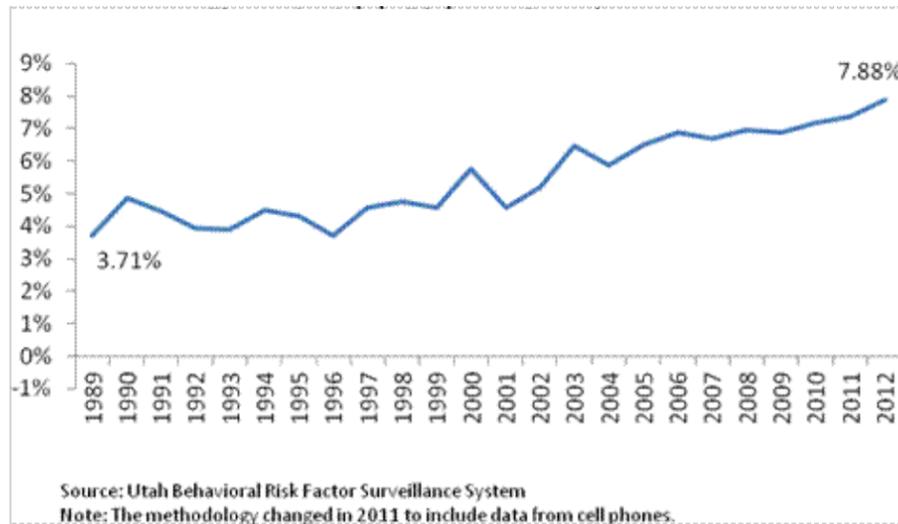
**2. Community Health- Description of Current System Performance**

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.

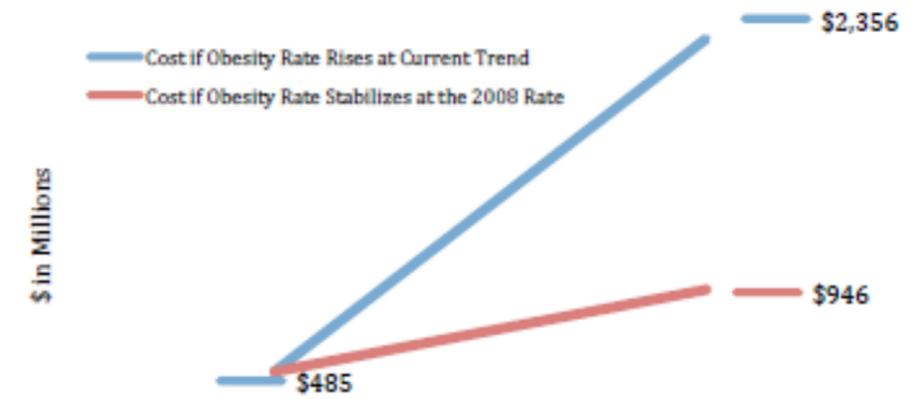
Diabetes, the most expensive chronic condition to manage in the health care setting, was the primary reason for 2,523 hospitalizations and \$49 million in treatment costs for Utah in 2011.<sup>32</sup> In the same year, nearly 8% of the adult Utah population, 142,557 people, had been told by a doctor 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.<sup>33</sup> Addressing 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.

**Figure 24. Adult Diabetes Prevalence, Utah 1989-2012**



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<sup>34</sup>. 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%.

**Figure 25: Utah's Obesity-Related Medical Expenditures**



Thorpe KE. The future cost of obesity: National and State Estimates for the Impact of Obesity on Direct Health Care Expenses. A collaborative report from the United Health Foundation, the American Public Health Association, and Partnership for Prevention.

### 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-

viders. 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<sup>35</sup> which are currently being implemented by the United Way of Salt Lake City. Similar projects are in effect in Somerville, MA<sup>36</sup> and in Blue Zone<sup>29</sup> communities around the country with great success. The Shape Up Somerville project targeted childhood obesity and has documented promising results<sup>37</sup>. 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<sup>38</sup>.

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<sup>39</sup>. 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 a healthy snack. 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 teachers to lead a healthful lifestyle. Some changes, like those described, help to 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 those 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 definite 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:** 1.1.1 An HIT infrastructure that is accurate has utility to the end-users in terms of person identification, and self-sustainable

**OUT MEAS:** 1.1.1 Percentage of population in Statewide Master Person Index (sMPI)

1.1.2 Percentage of clinical quality measures or electronic patient records that can be accurately tracked to an individual

**INTERV:** 1.1.2 Provide the necessary infrastructure and support to Critical Access Hospitals, Long Term Care, Behavioral Health Providers to make cHIE 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 cHIE 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.

- A security risk analysis should be conducted by all HIPAA covered entities with access to protected health information to help them identify and address security risks and establish more robust policies and procedures.
- There is a need for coordination of existing and new resources to include training or technical assistance for targeted providers
- Training needs assessment statewide is needed to determine if appropriate HIT training is available through rural Utah
- The HIT Regional Extension Center, as designated by the Office of the National Coordinator for Health IT (ONC), has provided direct technical assistance to support the security risk analysis for over 1,000 Utah providers and hospitals.
- Healthcare workforce training and certification in health information security and protocols and health data management along with privacy and security education in higher education venues are needed to support the healthcare community.

The CMS EHR Incentive program, to include both Medicare and Medicaid programs, has been a catalyst for 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.

Providers with high Utah Medicaid patient volumes can continue to receive subsidized support through this technical assistance intervention program to meet the demands of state and federal requirements as they increase and become more challenging over time This intervention will maintain HIT efforts in small, independent practices most needing assistance with interoperability (HIE), measurement, and connectivity with their medical neighborhood and will 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.

**EXP OUT:** 1.1.2 Provider groups that have lagged in sharing information in the cHIE will share information at levels equal to that of other providers

**OUT MEAS:** 1.1.4 The percent of these provider groups regularly sharing information through the cHIE

**SUBAIM:** 1.2 Enhance security measures for key HIT enabled tools

**INTERV:** 1.2.1 Increase functionality of current security systems protecting key HIT enabled tools so that they can identify potential inappropriate usage by any authorized user

**INTERV:** 1.2.2 Validate that all authorized users of key HIT enabled tools have completed appropriate HIPAA and other security training

#### Rationale

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 the cHIE is effectively monitored.

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 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)(ii)(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 testing 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 VBP 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**

The state of Utah and those who pay for health care in the state have spent considerable time and effort to create

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

**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

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

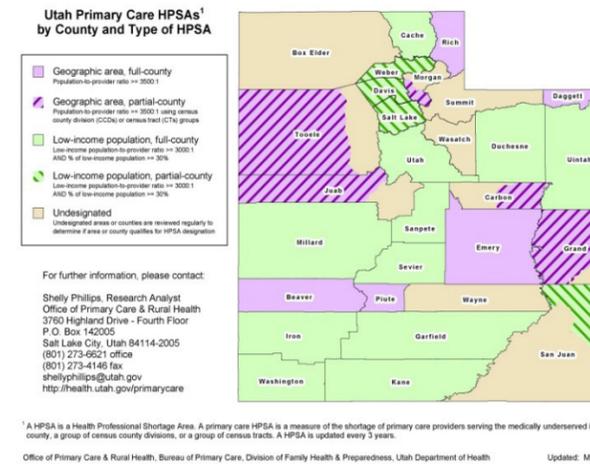
**INTERV: 1.4.1** Expand surveillance to include Primary & Behavioral Health providers working in team and Value-Based Purchasing environment

**Rationale**

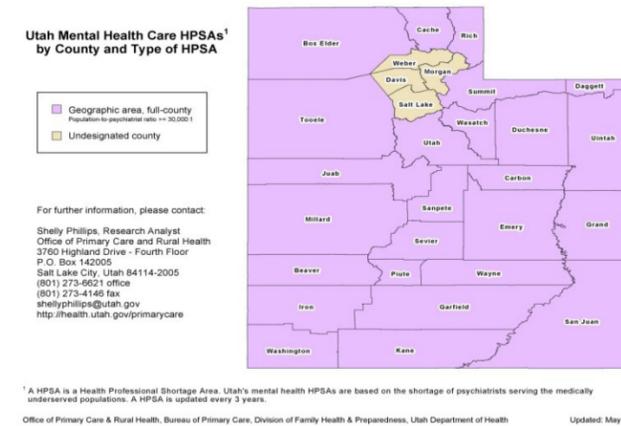
Utah ranks among the highest quality, lowest cost states for health care, meaning that Utah gets great value for its health care dollar. However, Utah has only approximately 178 patient care physicians per 100,000 people, which is 40% below the recommended ratio. Twenty-three of 29 counties in Utah have 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-base 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 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. 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.

**Figure 26. Utah Primary Care HPSAs**



**Figure 27. Utah Mental Health Care HPSAs**



**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 Environment tied to utilization of services

**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](http://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.

**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

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<sup>40</sup>. In general, patients and the families of patients want to be informed that an adverse event or medical error has occurred, regardless of severity<sup>41-43</sup>. 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<sup>44</sup>.

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<sup>45</sup>. 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<sup>46</sup>. (16)

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 \$29 billion<sup>47</sup>. 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<sup>48</sup>.

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:** 1.5.6 Number of unanticipated events reported monthly, number of new claims monthly, time spent between event reported and resolution, average yearly cost for liability insurance, patient compensation, non-compensation legal charges

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

### 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 within 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.

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

**OUT MEAS:** 1.5.6 Number of unanticipated events reported monthly, number of new claims monthly, time spent between event reported and resolution, average yearly cost for liability insurance, patient compensation, non-compensation legal charges

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

#### **Rationale**

The collaborative will develop and disseminate educational initiatives to enhance care provider communication skills in areas that include: 1) advanced care planning 2) choosing wisely or value-based care delivery both between providers and between providers and healthcare consumers 3) disclosure and resolution of unanticipated outcomes or medical errors. 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. Finally, the collaborative 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. This initiative is crucial to implementation of all other plans of this group and will work in concert with past and current patient safety initiatives in the state of Utah.

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

**OUT MEAS:** 1.5.6 Number of unanticipated events reported monthly, number of new claims monthly, time spent between event reported and resolution, average yearly cost for liability insurance, patient compensation, non-compensation legal charges

#### **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 an Advance Directives (AD) form

**INTERV:** 2.1.1 Develop and enhance Health-IT enabled tools and assess their impact to support increasing the number of Utahns that have completed the appropriate End-of-life forms

#### **Rationale**

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 incapacitation. 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:** 2.1.2 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**

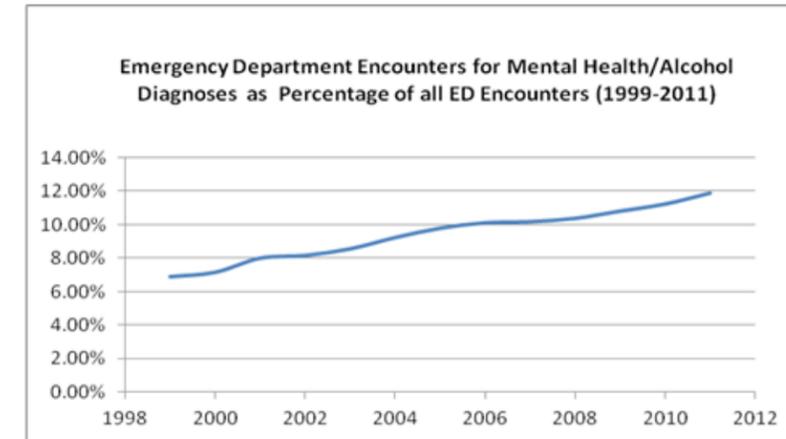
A new national report reveals that 45.9 million American adults aged 18 or older, or 20 percent of this age group, experienced mental illness in the past year. The rate of mental illness was more than twice as high among those aged 18 to 25 (29.9 percent) than among those aged 50 and older (14.3 percent). 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<sup>49</sup>.

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, including cancer and heart disease.

Early identification and treatment of substance abuse disorders and mental health conditions have largely been ignored in our society over the past 20 years. Incidents of public mental health breakdowns with devastating consequences are illuminated under the spotlight of the press and then recede back into the background waiting for the next event. In Utah the number two Emergency Medical Services (EMS) “first impressions” call across the state is described as psychiatric or behavioral health in nature by first responders. The percentage of Emergency Department visits due to substance abuse or mental health conditions has doubled from a low of about

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)**



Six counties (Salt Lake, Weber, Utah, Davis, Washington, Tooele) accounted for 90% of the charges. Medicaid was the number one payer of MH/SA ASC conditions picking up about one fourth of the expenditures. Utah’s plan is to redesign mental health and substance abuse screening and interventions by bringing a public health approach to early screening and intervention into primary care centers, hospital emergency rooms, trauma centers, and other community settings provide opportunities for early intervention with at-risk substance users before more severe consequences occur.

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

**OUT MEAS: 3.1.3** Percentage of adults and children who reported symptoms of a major depressive disorder in the last 12 months who received treatment for depression in last 12 months

**INTERV: 3.1.2** Implement most effective prevention and treatment practices for Behavioral Health using the ROSC sub-acute matrix

**Rationale**

Substance use disorder is the number one cause of preventable illness and death in the United States. Each year, more than 500,000 deaths - or over one in four - in the United States is attributable to abuse of alcohol, tobacco or other drugs. Consequences of alcohol and illicit substance abuse include, among others, cirrhosis, job loss, and criminal behavior related to the acquisition and sale of illicit drugs. In Utah, an estimated 54,000 adolescents engage in underage drinking every year. Nearly 9% of students have used alcohol in the past 30 days almost 50% report alcohol is easy to get, and 6.6% report heavy (binge) drinking<sup>50</sup>. For adults, 6.37% of the Utahns meet diagnostic criteria for abuse or dependence (alcohol and/or illicit drugs)<sup>51</sup>. A University of Utah

study found that 7.8% of pregnant women tested positive for illicit drugs and/or alcohol. Women with Medicaid or no insurance were four times more likely to be positive for illicit substances (10.7%) than were those with private insurance (2.3%)<sup>52</sup>.

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<sup>53</sup>, 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<sup>54</sup>. 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<sup>55</sup>.

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 resiliencies 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.

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

**OUT MEAS:** 3.1.3 Utilization of EMS, ER, inpatient hospitalization for behavioral health needs

**INTERV:** 3.1.3 Provide available healthcare services to where services are needed using UDC/LMHPs in 24 settings, peer support training and certification, and AHEC sponsored behavioral health training in 9 rural hospitals

### **Rationale**

Eight-five percent of Utah's population lives on 20% of the land mass while 15% of the population lives in rural, frontier and remote geographical areas. Access to mental health/substance abuse services in rural communities is limited resulting in clients being sent to services outside of their communities to services located in urban settings. Issues of travel, housing, and familial support can disrupt the diagnosis and recovery process. Efforts to rectify such resource shortages require creativity. Behavioral Health Peer support training and certification will be developed and implemented. Coordination and integration of community-based behavioral health with primary care services can result in improved prevention, early identification, and intervention to reduce the incidence of serious physical illnesses, including chronic disease and increased availability of integrated, holistic care for physical and behavioral disorders; and better overall health status of clients.

Existing Area Health Education Centers (AHEC) infrastructure will be used to work with nine rural independent hospitals (Beaver--Beaver Valley, Moab--Moab Regional, Kanab--Kane County, Gunnison--Gunnison Valley, Blanding--Blue Mountain, Milford--Milford Valley Memorial, Roosevelt--Uintah Basin Med Center, Nephi--Central Valley Hospital and Monticello--San Juan Hospital) in Utah. AHEC will provide training in those rural communities to implement peer support programs, make training available to primary care providers and assist in facilitating rural rotations for graduate mental health students. AHEC will develop interdisciplinary mental health training and support specifically geared to providers outside the Intermountain Healthcare network. AHEC will require medical students and PA students to spend a couple of days at a mental health agency during their clinical rotations. Behavioral Health students could also be required to spend time at a medical clinic. The Network will utilize telehealth/telemedicine resources to connect these providers will decrease provider turnover, provide better opportunities for collaboration and facilitate the implementation of a peer support workforce.

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

**OUT MEAS:** 3.1.3 Number of adults who need care right away for an illness, injury or condition in the last 12 months who sometimes or never got care as soon as wanted

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

### **Rationale**

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<sup>11</sup>. 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

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 commu-

nity 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

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 cHIE 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 cHIE 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 cHIE 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 cHIE. 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

care (workforce) as well as to promote use of the cHIE and appropriate security procedures. This intervention will support providers across the spectrum necessary to advance the adoption of Health Information Technology (HIT) to support value-based delivery of care and payment reform while maintaining privacy and security of patient health information. Funding will be given to various organizations that can provide effective outreach and technical assistance methods with clinics and facilities. Access will be monitored via existing survey data as well as semi-structured interviews with key informants and conduct focus groups with primary care providers.

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 UHINs internal assessment and planning needs to be completed annually, in conjunction with the annual EHNAC and then again every other year.

**TIMELINE:** Year 1: Access monitoring software and support staff are deployed. Access monitoring practices are configured. Year 2 – 3: Continue use and improve processes

**LOCATION:** UHIN

**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.

**COST ESTIMATE:** \$250,000

#### **IMPLEMENTATION**

**RESPONSIBLE PARTIES:** UDOH will contract with a third party to bring together all affected stakeholders to create a set of statewide standards for value measurement. The contracted entity will need to have expertise in existing or proposed quality and value metrics at the state and national levels. The contractor will be tasked with conducting a preliminary screening of known sources of usable value metrics to identify strengths and weaknesses.

**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

#### **IMPLEMENTATION**

**RESPONSIBLE PARTIES:** UDOH will contract with a third-party to oversee the implementation of this activity.

**ACTIVITIES:** The contracting entity will be responsible to:

- 1- Recruit participants
- 2- Describe and categorize their approaches to VBP
- 3- Establish a research framework, including baseline measures and progress measures
- 4- Analyze results from measures and report on findings

**TIME LINE:** By the end of Year 1 - The contracted entity recruits participants, establishes expectations, and collects baseline measurements. The contracted entity aids participants in adopting the standard value metrics. By the end of Year 2 – The contracted entity provides preliminary progress measures and feedback to participants on their initial progress. The contracted entity hosts a series of information sharing events to allow results to be presented, scrutinized, and discussed. By the end of Year 3 – The contracted entity provides final measurements and conducts statistical analysis to identify the relative effectiveness of various features in various environments.

**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 proposal is to create additional capacity within the APCD to become the primary, and potentially the 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.

**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 (1) the addition of a research analyst and, (2) the collection of survey data for mental and behavioral health from the provider population. The resulting information would provide a level of practice benchmarks for health care team professionals and determine the scope of value-based care.

**TIMELINE:** The expanded surveillance strategy has an estimated timeframe of 2 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

**SUBAIM: 1.5** PREPARE/TRAIN PROVIDERS TO PERFORM IN A VALUE-BASED PURCHASING AND 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 Bruncker 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 WEBINARS 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 leaders will be 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

ROSC Continuum Matrix - Developed by UBHC Clinical Committee - 2013

Phase	Prevention			Treatment	Continuous Recovery Management/Support
Goal	Promotion	Identification	Engagement	Recovery Initiation	Recovery Facilitation and Retention
Population	<i>Universal</i>	<i>Selective</i>	<i>Indicated</i>	<i>Diagnosed</i>	
	Description	General population group that has not been identified on the basis of individual risk.	Those at risk of developing a disorder is significantly higher than average.	Individuals in high-risk environments, identified as having minimal but detectable signs foreshadowing disorder or having biological markers indicating predisposition for disorder but may not yet meet diagnostic level	
Examples	<ul style="list-style-type: none"> <li>All Students</li> <li>Primary Care patients</li> <li>Church congregations</li> </ul>	<ul style="list-style-type: none"> <li>ER Patients</li> <li>Poor grades</li> <li>Poor social skills</li> <li>Poor family management</li> <li>Children of parents w/ Dx</li> </ul>	<ul style="list-style-type: none"> <li>DUI</li> <li>Possession charge</li> <li>Naive experimenters</li> </ul>		
Processes		Screening	Engagement: Immediate needs, Client focus	Ongoing Assessment: Rx/Psych/Social, Psych testing, etc	Active Care (not "aftercare")
		Early Intervention	Ongoing Planning: Tx Plan kept current, reflected in notes	Treatment: Levels of care (ASAM), EBP, MAT etc	<ul style="list-style-type: none"> <li>Case Management</li> <li>Support</li> <li>Monitoring</li> </ul>
Services/Strategies	<ul style="list-style-type: none"> <li>Prevention Education</li> <li>Health Promotion</li> <li>Assemblies</li> <li>Health Fairs</li> <li>Media Campaign</li> <li>Coalition</li> <li>Mobilization and Organization</li> </ul>	<ul style="list-style-type: none"> <li>SBIRT</li> <li>DAST</li> <li>AUDIT</li> <li>CAGE</li> <li>Student Assistance Programs</li> </ul>	<ul style="list-style-type: none"> <li>Motivation Interviewing</li> <li>Case management</li> <li>Interim Groups</li> <li>Recovery support services</li> <li>Social media</li> <li>Wellness checks</li> <li>Peer support services</li> <li>Community support services</li> <li>PRU/Prime Solutions</li> </ul>	<ul style="list-style-type: none"> <li>ASAM defined levels of service</li> <li>Medication Assisted Treatment (MAT)</li> </ul>	<ul style="list-style-type: none"> <li>Motivation Interviewing/Enhancement</li> <li>Case management</li> <li>Recovery support services</li> <li>Social media</li> <li>Wellness checks</li> <li>Peer support services</li> <li>Community support services</li> <li>Naturally occurring social support</li> </ul>
Providers	Prevention Specialists	PCPs, Courts, Hospitals, Pharmacies	Prevention Specialists, Schools, Clergy, Family	LSAA, Private SUD Treatment facilities	
Funds				Medicaid, Private 3 <sup>rd</sup> Party	
Data				TEDS/State Reporting, Medicaid Encounter	

\*Shaded areas are current focus \*\*Sufficient data to provide screening/treatment

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 (LSAAs) 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 payee/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 sSPD 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 taking 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:

- a. The extent to which the state's delivery system reform plan was implemented
- b. Its effect on health care spending
- c. 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 cHIE 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:

- a. Provider surveys
- b. Medicare administrative claims
- c. State Medicaid and CHIP program information
- d. Beneficiary experience surveys
- e. Site visits with practices
- f. 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 a 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:

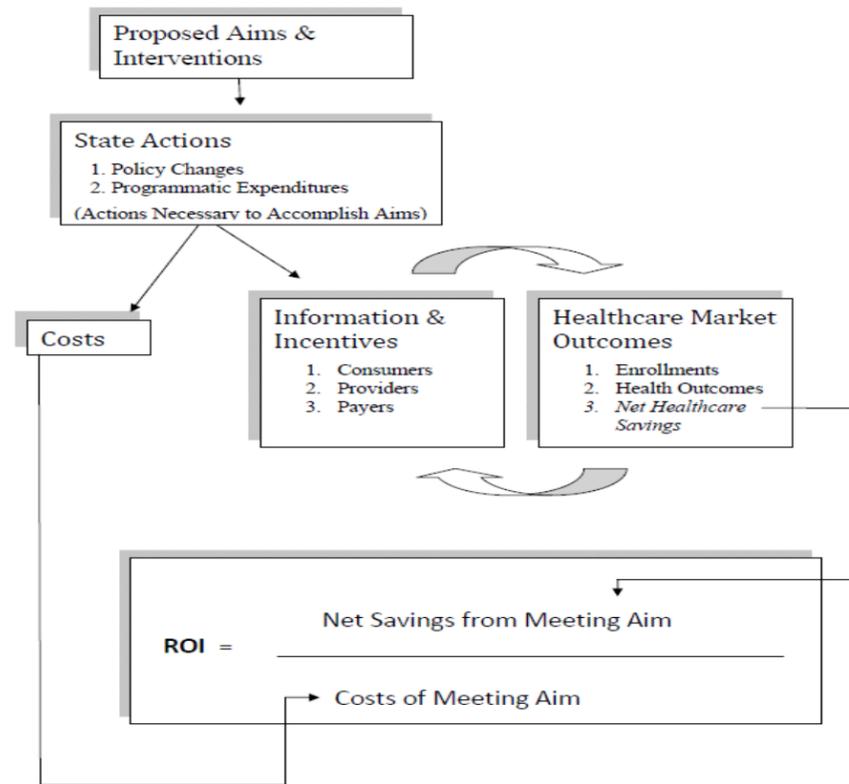
- the current enrollments and healthcare expenditures for each group
- future healthcare expenditures for each group assuming that no health system reform takes place (the baseline model)
- future healthcare expenditures for each group assuming that the aim of interest is accomplished (these changes 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.

**Figure 31. Returns on Investment from Health System Innovations**



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**

Population	Per-capita Savings		ROI		% Saved Annually	
	3-yr Mean	5-yr Mean	3-yr Mean	5-yr Mean	3-yr Mean	5-yr Mean
Total	\$332	\$1,151	239	827	1.6%	3.2%
Medicare	\$287	\$1,066	207	766	1.0%	2.0%
Medicaid	\$256	\$949	184	682	1.0%	2.1%
Dual-Eligible	\$1,589	\$5,435	1,142	3,905	1.6%	3.1%
CHIP	\$48	\$182	34	131	0.7%	1.5%
Private	\$363	\$1,232	261	885	1.9%	3.8%

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.

**Net Savings: End-of-Life Care, Subaim 2.1**

The effect of achieving this subaim is most noticeable in the Medicare population, but this group also has the widest range of effects. It is likely that the effects in the Medicare population are stronger because the mortality rate is much higher among the Medicare beneficiaries, not because cost-savings per death are greater or that POLST orders are more effective for this group. Indeed, the percentage reduction in costs per death is assumed to be higher in the younger age groups. However, death is much less common for those under age 65.

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

Population	Per-capita Savings		ROI		% Saved Annually	
	3-yr Mean	5-yr Mean	3-yr Mean	5-yr Mean	3-yr Mean	5-yr Mean
Total	\$4	\$7	4	7	0.01%	0.01%
Medicare	\$20	\$34	21	36	0.07%	0.07%
Medicaid	\$1	\$2	1	2	0.00%	0.00%
Dual-Eligible	\$3	\$5	3	6	0.00%	0.00%
CHIP	\$0	\$0	0	0	0.00%	0.00%
Private	\$1	\$2	1	2	0.01%	0.01%

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)	RATIONALE FOR STAKEHOLDER INVOLVEMENT	METHOD OF ENGAGEMENT	STAKEHOLDER ROLES/ RESPONSIBILITIES	TIMEFRAME FOR STAKEHOLDER ENGAGEMENT	STAKEHOLDER OUTPUTS/ DELIVERABLES
Lt. Governor Greg Bell and Lt. Governor Spencer Cox	Policy Coordination for the Governor's Office	Chair of the Executive Policy Group (EPG)	Chair the EPG and call the Group	(All EPG members are engaged in the EPG activities, work group activities throughout the six-month model period)	Managed and Chaired all EPG meetings and directed the approval and review of final aims and reports
David Patton Exec. Director Utah Department of Health (UDOH)	Policy direction & coordination for all UDOH with SIM staff to LG and Governor's Office	Member of the EPG Support for the LG and coordination with other Cabinet members for the SIM project	Meetings with SIM UDOH staff to assure project progress is on track (See staff list at bottom of stakeholder list)	Bi-weekly or more if needed	Policy and activity direction
Palmer DePaulis Exec. Director Utah Department of Human Services (DHS)	Policy leadership from Human Services program particularly substance abuse and mental health programs	Member of EPG	Provide access to and coordination with state substance abuse and mental health programs	EPG meeting schedule and more as needed	Assign DHS staff where needed to support work group activities specifically payment reform and prevention.
Todd Kiser Commissioner Utah Insurance Department	Policy leadership from the Insurance Department particularly with regard to health insurance	Member of EPG	Provide access to and coordination with state insurance regulators	EPG meeting schedule and more as needed	Assign Insurance staff where needed to support work group activities specifically payment reform.
John Oaks Vice President, Government and Payor Relations	Hospital System	Member EPG	Input at the EPG level to review work group aims and drivers	EPG Meeting	Policy and activity Direction
Representative Jim Dunnigan	Policy coordination with Utah State Legislature	Member of EPG (House Chair, Health Reform Taskforce) SIM Payment Reform Work Group Chair	Provide coordination with Utah Legislature's Health Reform Taskforce Work Groups and Legislative Leadership Meetings throughout the six-month project Select Work Group Members Work with members to identify recommendations that will be forwarded for testing phase	EPG meeting schedule and Work Group Meetings	Chair all Payment Reform Guide Work Group Staff to development of aims and drives for SIM testing phase in payment reform -present recommendations to EPG for mid-point review -prepare for final review and presentation at Governor's Summit
Senator Evan Vickers	Policy coordination with Utah State Legislature	Member of EPG Member of Work Force Work Group and Payment Reform (Senate Chair, Health and Human Services Interim Committee)	Provide coordination with Utah Legislature's Health and Human Services Interim Committee)	EPG meeting schedule Work Group Meetings	Provide legislative input to work force (and as an acting pharmacist) and payment reform work group
Vivian Lee, MD Senior Vice President for Health Science	Policy coordination with the University of Utah Health Science Center	EPG Member Co-Chair Work Force Work Group	Chair – Work Force Work Group Meetings throughout the six-month project Select Work Group Members Work with members to identify aims and drivers that will be forwarded for testing phase	EPG and Work Group Meetings	Guide Work Group Staff to development of recommendations for SIM testing phase in payment reform -present recommendations to EPG for mid-point review -prepare for final review and presentation at Governor's Summit
Brian Hales, MD, President Utah Medical Association (UMA)	Policy coordination with the UMA and its members	EPG Member	Provide policy access to Utah Medical Association Members and affiliates	EPG Meetings	Policy and activity direction (Engage other members with appropriate work groups)

**APPENDIX A: Stakeholder Engagement Plan**

STAKEHOLDER(S)	RATIONALE FOR STAKEHOLDER INVOLVEMENT	METHOD OF ENGAGEMENT	STAKEHOLDER ROLES/ RESPONSIBILITIES	TIMEFRAME FOR STAKEHOLDER ENGAGEMENT	STAKEHOLDER OUTPUTS/ DELIVERABLES
David Entwhistle, Board Chair, Utah Hospital Association	Policy coordination with the Utah Hospital Association Board of Trustees and members	EPG Member	Provide policy access to Utah Hospital Association Board of Trustees and members and affiliates	EPG Meetings	Policy and activity direction (Engage other members with appropriate work groups)
John Ward, CFO Harmons Grocery Stores	Large Business Owner Health System impact changes on businesses	EPG Member	Input at the EPG level to review work group aims and drivers	EPG Meetings	Policy and activity direction
Greg Jones, Pharmacy Director Harmons Grocery Stores	Large Business Owner Health System impact changes on businesses	EPG Member Work Group Co-Chair Prevention and Wellness Work Group	Co-Chair Prevention and Wellness Work Group Meetings throughout the six-month project Select Work Group Members Work with members to identify aims and drivers that will be forwarded for testing phase	EPG and Work Group Meetings	Guide Work Group Staff to development of recommendations for SIM testing phase in payment reform -present recommendations to EPG for mid-point review -prepare for final review and presentation at Governor's Summit
Ben McAdams Mayor Salt Lake County	Local Government Representative	EPG Member	Input at the EPG level to review work group aims and drivers	EPG Meetings (Organizing a county group at his offices to follow and support work groups with input – important for work with other metropolitan counties)	Policy and activity direction
Charles Sorenson, MD Intermountain Health Care President, CEO	Large Health Care System Provider	Member of EPG	Input at the EPG level to review work group aims and drivers	EPG Meetings	Policy and activity direction
John Hanshaw, CEO, MountainStar Healthcare	Hospital System	Member of EPG	Input at the EPG level to review work group aims and drivers	EPG Meetings	Policy and activity Direction
<b>WORK GROUPS</b>					
<b>WORK GROUP I HEALTH INFORMATION</b>					
Co-Chair: Sharon Donnelly, Health Insight Member – Utah Health Data Committee	Private Non-Profit	Chair of the Health Information Work Group	Directs aims and driver development for the Work Group	Work Group and EPG Meetings	Work Group Chair Staffing with Jennifer Garvin to development aims and drivers for State Health Innovation Plan in health information
Co-Chair: Mark Munger, PhD School of Pharmacy Chair, Utah Digital Health Commission	Education – Health Technology	Chair of the Health Information Work Group	Directs aims and driver development for the Work Group	Work Group and EPG Meetings	Work Group Chair Staffing with Jennifer Garvin to development aims and drivers for State Health Innovation Plan in health information
Scott Baxter, Aon Hewit	Large Business	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Lauren O. Florence, MD	Physicians	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Pat Richards, Select Health	Payor	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
James VanDerslice, University of Utah	Public Health	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information

APPENDIX A: Stakeholder Engagement Plan

STAKEHOLDER(S)	RATIONALE FOR STAKEHOLDER INVOLVEMENT	METHOD OF ENGAGEMENT	STAKEHOLDER ROLES/ RESPONSIBILITIES	TIMEFRAME FOR STAKEHOLDER ENGAGEMENT	STAKEHOLDER OUTPUTS/ DELIVERABLES
David E. Putinton Purco Fleet Services	Small Business	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Christopher Wood, MD, Intermountain Health Care	Physician	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Bill Crim, United Way	Consumer Advocate	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Keith Tintle, Mountain Star Health Care	Hospitals	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
James G. Tabery, University of Utah	Public Health	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
David Holbrook, Regence Blue Cross Blue Shield	Payor	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Kevin Potts, Union Pacific Railroad (Health Care)	Large business	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Lynette Hansen Altius Health Plans	Payor	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Henry Gardner, Zions Bank	Large Employer	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Scott Barlow Central Utah Medical Clinic	Provider	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Sarah Woolsey, MD Health Insight	Private Non-Profit	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Jan Root Utah Health Information Network	Payor and Provider electronic Records	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Deb LeMarche Utah Telehealth Network	Telemedicine	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Chet Loftis Public Employees Health Plan	Payor	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Brad LeBaron Uintah Basin Medical Center	Rural Hospital	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information

APPENDIX A: Stakeholder Engagement Plan

STAKEHOLDER(S)	RATIONALE FOR STAKEHOLDER INVOLVEMENT	METHOD OF ENGAGEMENT	STAKEHOLDER ROLES/ RESPONSIBILITIES	TIMEFRAME FOR STAKEHOLDER ENGAGEMENT	STAKEHOLDER OUTPUTS/ DELIVERABLES
Wesley Smith Salt Lake Chamber of Commerce	Business	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Dennis Moser Utah Center for Rural Health	Rural Providers	Member of Health Information Work Group Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Marc Probst, Intermountain Health Care	Large Provider health technology	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
Nancy Stagers, School of Nursing, University of Utah	Nursing	Member of Health Information Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for State Health Innovation Plan in health information
<b>WORK GROUP II – HEALTH WORK FORCE</b>					
Vivian Lee, Dean School of Medicine and CEO, University of Utah Health Systems	Education – Health Professions Training	Co-Chair of the Workforce Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Linda Hofmann, Assistant Vice President of Nursing Intermountain Health Care	Large Health Care Provider	Co-Chair of the Workforce Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
		Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Jennifer Coombs, Physician Assistant Program, University of Utah	Health Professions Training Program	Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Jennifer Leiser, MD Department of Family and Preventive Medicine, University of Utah	Health Professions Training Program	Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Tracy Karp, MD College of Nursing, University of Utah	Health Professions Training Program	Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Maureen Keefe, College of Nursing, University of Utah	Health Professions Training Program	Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Barbara Wilson, College of Nursing, University of Utah	Health Professions Training Program	Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Ed Clark, MD School of Medicine, University of Utah	Health Professions Training Program	Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Yasmen Simonian, PhD, Dean, Ezekiel R. Dumke College of Health Professionals Weber State University	Health Professions Training Program	Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force
Leissa Roberts, College of Nursing, University of Utah	Health Professions Training Program	Member of Health Work Force Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Work Force

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<b>WORK GROUP III – PREVENTION AND WELLNESS</b>					
Lewis Garrett, Davis County Health Dept.	Local Health Officer	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Rich Bullough, Summit County Health Dept.	Local Health Officer	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Audrey Stevenson, Salt Lake Valley Health Dept.	Local Health Department Nursing Director	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Kathy Briggs, Granite Schools District	School Nurse	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Alan Pruhs, Association of Utah Community Health Centers	Community Health Organization	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Alan Ainsworth, University of Utah	Higher Education	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Liz Joy, Intermountain	Health System	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Dennis Moser, Utah Rural Health Association	Rural Health	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Scott Hansen, Intermountain	Health System	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Julie Day, University of Utah Healthy U	Payor	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Kathleen Diegre, University of Utah	Community	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Dave Cook, Health Insight	Health Quality Improvement	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Steve Alder, University of Utah	Higher Education	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Bruce Costa, Central Utah Public Health Department	Rural Local Health Officer	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Len Novilla, BYU	Higher Education	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness

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STAKEHOLDER(S)	RATIONALE FOR STAKEHOLDER INVOLVEMENT	METHOD OF ENGAGEMENT	STAKEHOLDER ROLES/ RESPONSIBILITIES	TIMEFRAME FOR STAKEHOLDER ENGAGEMENT	STAKEHOLDER OUTPUTS/ DELIVERABLES
Nancy Neff, Southwest Utah Community Health Center	Rural	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Scott Brown, AHA-Utah	Advocate	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Natalie Gochour, Chamber of Commerce	Business	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Superintendent Menlove, USOE	K-12 Education	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Greg Jones, Harmons	Business	Co-Chair, Prevention and Wellness Workgroup	Co-Chair Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
George Myers, Zions Bank	Business	Co-Chair, Prevention and Wellness Workgroup	Co-Chair Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Rebecca Feitkau, ARUP	Business	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Dave Larsen, Select Health	Payor	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Gail Rapp, Medicaid, UDOH	Public Payor	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Victor Arredondo, AHA-Utah	Advocate	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
McKelle Moore, Intermountain	Community Health	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Bill Crim, United Way	Community/Advocate	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Rich West, YMCA	Community	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Hal Gooch, Molina	Payor	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Joyce Kim, Health Choice	Payor	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness

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Ed Napia, Urban Indian Center	Tribal	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
Tim Butler, Select Health	Payor	Member of Prevention and Wellness Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Prevention and Wellness
<b>WORK GROUP IV – PAYMENT REFORM</b>					
Chad Westover, Molina Healthcare	Medicaid Payor	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
John Oaks, Iasis	Medicaid ACO & Hospital System	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Joe Mott, Intermountain Healthcare	Medicaid ACO & Hospital System	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Mike Magill, University of Utah Health System	Medicaid ACO & Hospital System	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Chet Loftis, PEHP	Public Payor	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
David Call, DMBA	Payor	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Jennifer Danielson, Regence	Payor	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Todd Trettin, Altius	Payor	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Greg Poulsen, Intermountain Healthcare	Hospital System	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
John Hanshaw, MountainStar Healthcare	MountainStar Healthcare Hospital System	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Scott Barlow, Central Utah Clinic	Physician and Specialty Clinic	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Mary Jane Pennington, Granger Clinic	Physician Clinic	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform

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Jan Root, UHIN	Health Data	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Charles Hawley, APCD	Health Data	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Marc Bennett, Health Insight	Health Quality Improvement	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Tanji Northrup, Dept. of Insurance	Regulator	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Sen. Evan Vickers	State Senate	Member of Payment Reform Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
Rep. Jim Dunnigan	State Representative	Chair of Payment Reform Workgroup	Chair Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Payment Reform
<b>WORK GROUP V – QUALITY AND PATIENT SAFETY</b>					
Edward Clark, MD, University of Utah	Hospital Systems, Physician	Chair, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Lenora Olson, PhD, Intermountain Injury Control Research Center	Epidemiology, Qualitative methods	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Amanda Barrios	Community Engagement	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Xiaoming Sheng, PhD, University of Utah	Biostatistics	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Michael Dela Cruz, University of Utah	Program Coordination	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Gitte Y. Larsen, MD, MPH, Intermountain Healthcare	Quality Improvement	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Doug Nelson, MD, University of Utah, Primary Children's Medical Center	Community Engagement, Physician	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Maija Holsti, MD, MPH, University of Utah	Community Engagement, Physician	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Jaewhan Kim, PhD, University of Utah	Quality Improvement, Health Information Technology	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety

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Heather Canary, PhD, University of Utah	Communication, Qualitative Methods	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Michelle M. Mello, JD, Harvard School of Pub. Health	Attorney, Public Health	Member, Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
Thomas H. Gallagher, MD University of Washington	Physician, Dispute Resolution specialist	Member of Dispute Resolution Workgroup	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety
<b>STATE SIM STAFF</b>					
Deborah Turner, RN, BS Utah SIM Coordinator	Utah Department of Health State SIM Staff	Staff SIM Project Coordinator, Lead Staff for EPG	Participate and oversee all aspects of the project	Attendance at all meetings where possible for work groups and EPG for the duration of the SIM grant process	All federal and state reports
Shelly Tuescher Project Manager	Utah Department of Health State SIM Staff	Staff SIM Project Coordinator, Lead Staff for Work Group Coordination	Participate and oversee all aspects of the project	Attendance at all meetings where possible for work groups and EPG for the duration of the SIM grant process	All federal and state reports
Wu Xu	Utah Department of Health SIM Work Group I Staff	Work Group I Staff lead	Coordinate all Work Group Activities with Co-leads and Work Group Staff: Jennifer Garvin Megha Kalsy	Attendance at all meetings where possible for work groups and EPG for the duration of the SIM grant process	Development of Work Group Aims and Drivers, Quarterly and Final Report Work Group I Sections
Marc Babitz, MD	Utah Department of Health SIM Work Group II Staff	Work Group II Staff lead	Coordinate all Work Group Activities with members and Chairs	Attendance at all meetings where possible for work groups and EPG for the duration of the SIM grant process	Development of Work Group Aims and Drivers, Quarterly and Final Report Work Group III Sections
Iona Thraen	Utah Department of Health SIM Work Group II Staff	Work Group II Staff and Evaluation Project Manager	Coordinate all Work Group Activities with members and Chairs Coordinate development of Utah SIM Evaluation Plan	Attendance at all meetings where possible for work groups and EPG for the duration of the SIM grant process	Development of Work Group Aims and Drivers, Quarterly and Final Report Work Group II Sections
Teresa Garrett	Utah Department of Health SIM Work Group III Staff	Work Group III Staff Lead	Coordinate all Work Group Activities with members and Chairs	Attendance at all meetings where possible for work groups and EPG for the duration of the SIM grant process	Development of Work Group Aims and Drivers, Quarterly and Final Report Work Group III Sections
Heather Borski	Utah Department of Health SIM Work Group III Staff	Work Group III Staff	Coordinate all Work Group Activities with members and Chairs	Attendance at all meetings where possible for work groups and EPG for the duration of the SIM grant process	Development of Work Group Aims and Drivers, Quarterly and Final Report Work Group III Sections
Norman Thurston	Utah Department of Health SIM Work Group IV Staff	Work Group IV Staff Lead	Coordinate all Work Group Activities with members and Chairs	Attendance at all meetings where possible for work groups and EPG for the duration of the SIM grant process	Development of Work Group Aims and Drivers, Quarterly and Final Report Work Group III Sections
<b>UNIVERSITY OF UTAH CONSULTING CONTRACTOR STAFF</b>					
Victoria Wilkins, MD, MPH, University of Utah	Physician, Quality Improvement	Co-Project Coordinator for Utah SIM Project and the Quality and Patient Safety Work Group	Participate on Work Group V and assist all work groups with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety, Project Quarterly and Final reports

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Elisabeth Guenther, MD, MPH, University of Utah	Physician, Quality Improvement	Co-Project Coordinator for Utah SIM Project and the Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety and assist with all other UTAH SIM Project plan development
Natasha Kwendakwema, University of Utah	Program Coordination	Staff for Utah SIM Project and the Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Assist with development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety and assist Project Coordinators and Managers
Kammy Jacobsen, University of Utah	Program Coordination	Staff for Utah SIM Project and the Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Assist with development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety and assist Project Coordinators and Managers
Annette Webb, University of Utah	Program Coordination	Staff for Utah SIM Project and the Quality and Patient Safety Work Group	Participate on Work Group and assist with aim and driver development	Work Group Meetings	Assist with development of aims and drivers for Utah's State Health Innovation Plan in Quality and Patient Safety and assist Project Coordinators and Managers

APPENDIX B: AIMS AND INTERVENTIONS

APPENDIX B: AIMS AND INTERVENTIONS

INTERVENTION	TOTAL PLAN PROPOSED BUDGET - 3 YRS	EXPECTED OUTCOME	OUTCOME MEASURE
INT 1.1.1 Develop a Statewide Master Person Index (sMPI) to track patient identity across diverse systems to enable efficient correlation of clinical data	\$4,500,000	EXOUT 1.1.1 An HIT infrastructure that is accurate, has utility to the end-users in terms of person identification and self-sustainable.	OMEAS 1.1.1 Percentage of population in Statewide Master Person Index (sMPI)
INT 1.1.2 To provide the necessary infrastructure and support (Critical Access Hospital, Long term care, Behavioral Health) to make the Clinical Health Information Exchange, cHIE, a viable platform for reporting both individual providers' quality metrics, and as a platform for reporting community quality metrics benchmarks	\$8,144,000	EXOUT 1.1.2 Provider groups that have lagged in sharing information in the cHIE will share information at levels equal to that of other providers	OMEAS 1.1.2 Percentage of clinical quality measures or electronic patient records that can be accurately tracked to an individual OMEAS 1.1.3 The percent of these provider groups regularly sharing information through the cHIE
INT 1.2.1 Increase authorized access of cHIE, ePOLST, ACPD and other HIT-enabled tools to 100%	\$2,500,000	EXOUT 1.2.1 Increased security of data in key HIT enabled tools	OMEAS 1.2.1 100% of cHIE, ePolst, ACPD and other HIT-enabled tools access is effectively monitored and access is appropriately managed so that the risk of inappropriate access - either unauthorized or authorized access is minimized OMEAS 1.2.2 Key HIT enabled tools validate that 100% of users have completed appropriate security training
INT 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	\$250,000	EXOUT 1.3.1 A set of relevant metrics that can be used to measure quality and cost	OMEAS 1.3.1 Percent of standardized value metrics and cost per case reimbursement
INT 1.3.2 Establish a test comparing VBP systems by recruiting three groups of payers and/or providers using different VBP systems	\$950,000	EXOUT 1.3.2 Several VBP systems that can be compared for effectiveness	OMEAS 1.3.2 A statistical analysis of various VBP approaches that shows the relative effectiveness of various features and components in different health systems environments
INT 1.3.3 Accelerate VBP efforts through the use of the All Payer Claims Database (APCD)	\$1,500,000	EXOUT 1.3.3 Acceleration in the implementation of and increased quality in VBP arrangements	OMEAS 1.3.3 Percentage and quality of VBP implementations among private and public (Medicaid, CHIP, etc) systems
INT 1.3.4 Provide technical support to Individuals, small providers/clinics 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.	\$1,385,000	EXOUT 1.3.4 Improved providers-public health reporting and management systems	OMEAS 1.3.4 Number and quality of VBP arrangements between small providers and public health
INT 1.4.1 Expand surveillance to include Primary & Behavioral Health providers working in team and value-based purchasing environment	\$2,950,000	EXOUT 1.4.1 Increase in value driven integrated care and reimbursement	OMEAS 1.4.1 Estimates of the need for behavioral health in integrated care environment tied to utilization of services
INT 1.4.2 Incorporate population needs and outcomes into the supply model of providers in a value-based purchasing environment			
INT 1.5.1 Expand Utah Cluster Acceleration Partnership (UCAP)	\$900,000	EXOUT 1.5.1 Increase in value-based trained providers delivering better health and better care	OMEAS 1.5.1 Access to primary care providers (PCP) teams with whom patients can communicate and trust to provide integrated care
INT 1.5.2 Provide training to existing practitioners on value-based clinical practice	\$900,000		OMEAS 1.5.2 Decreased number of ED visits with characterization of ambulatory care sensitive condition appropriateness
INT 1.5.3 Decrease inappropriate use of hospital resources through education of providers and patients about choosing healthcare interventions wisely	\$1,000,000		OMEAS 1.5.3 Use of radiographic imaging for pediatric head trauma age 2-12 in ED
INT 1.5.4 Teach providers on how to have crucial conversations around disclosure and resolutions			OMEAS 1.5.4 Use of radiographic imaging for low back pain in first 6 weeks of pain
INT 1.5.5 Train physicians, medical directors, liability insurers, risk managers, existing patient safety officers to lead communication initiatives			OMEAS 1.5.5 Use of routine labs in ED and inpatient
INT 1.5.6 Develop cross-institutional collaborative for provider communication and learning			OMEAS 1.5.6 Number of unanticipated events reported monthly, number of new claims monthly, average yearly cost for liability insurance, patient compensation, non-compensation legal charges
	\$24,979,000		
INTERVENTION	TOTAL PLAN PROPOSED BUDGET - 3YRS	EXPECTED OUTCOME	OUTCOME MEASURE(S)
INT 2.1.1 Develop and enhance Health-IT enabled tools and assess their impact to support increasing the number of Utahans that have completed the appropriate end-of-life forms	\$1,200,000	EXOUT 2.1.1 Improve awareness and process to make end-of-life preferences known to providers.	OMEAS 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)
INT 2.1.2 Teach providers how to have crucial conversations around end of life, POLST, advanced directives	\$800,000	EXOUT 2.1.2 Improved awareness and process of patient expression of End-of-Life preferences	OMEAS 2.1.2 Percentage of targeted population with their Physician Orders for Life-Sustaining Treatment (POLST) and Advanced Directives documented in electronic Physician Orders for Life-Sustaining Treatment (ePOLST)
INT 2.1.3 Engage the community (including churches, faith based organizations, educational systems, legal institutions, and the Utah Commission on Aging) in End-of-Life conversations	\$800,000	EXOUT 2.1.3 Improved understanding of end-of-life options and declaration of preferences via advanced directive and ePOLST documentation	OMEAS 2.1.3 Number/percentage of in-patients with DNRs, POLST and advanced directives OMEAS 2.1.4 Number of in-patient and primary care providers having conversations about advanced directives, DNR, POLST
	\$2,800,000		OMEAS 2.1.5 Percentage of Utah adults that have documented end-of-life preferences through ePOLST
INTERVENTION	TOTAL PLAN PROPOSED BUDGET - 3YRS	EXPECTED OUTCOME	OUTCOME MEASURE(S)
INT 3.1.1 Integrate mental, emotional, and behavioral (MEB) health screenings and interventions using interdisciplinary teams in primary care settings using Screening, Brief Intervention, Referral to Treatment (SBIRT)	\$2,250,000	EXOUT 3.1.1 Improved quality and lower cost therefore improved value	OMEAS 3.1.1 Percentage of adults who reported symptoms of a major depressive episode (MDE) in the last 12 months who received treatment for depression in last 12 months
INT 3.1.2 Implement most effective prevention and treatment practices for Behavioral Health (ROSC sub-acute models)	\$5,250,000		OMEAS 3.1.2 Utilization of EMS, ER, Inpatient Hospitalization for Behavioral Health Needs
INT 3.1.3 Provide available health care services to where services are needed using SUDC/LMHPs in 24 settings, peer support training and certification and AHEC training in 9 rural hospitals	\$4,500,000		OMEAS 3.1.3 Number of adults who need care right away for an illness, injury, or condition in the last 12 months who sometimes or never got care as soon as wanted
INT 3.1.4 Provide behavioral health services via Telehealth services (GATE)	\$2,700,000		OMEAS 3.1.4 Screenings in children aged 8-18 for Substance Abuse (SA)
	\$14,700,000		
INTERVENTION	TOTAL PLAN PROPOSED BUDGET - 3YRS	EXPECTED OUTCOME	OUTCOME MEASURE(S)
INT 4.1.1 Determine and establish payer commitment to the value of CHW in a VBP environment	\$25,000	EXOUT 4.1.1 Established baseline inventory of payer commitment EXOUT 4.1.2 CHWs are reimbursed by health systems and organizations thus creating a sustainable funding model for CHW efforts	OMEAS 4.1.1 Number of patients with improved control of chronic conditions and related risk factors OMEAS 4.1.2 ROI of using CHWs to care for patients with chronic conditions and related risk factors
INT 4.1.2 Enhance CHW relationships and connections within communities and clinical arenas	\$150,000	EXOUT 4.1.3 Community clinical linkages support CHWs in helping patients access resources to improve their health	OMEAS 4.1.3 Number of patients appropriately accessing emergency and preventive services
INT 4.1.3 Implement state-wide VBP CHW training curriculum and registration process	\$125,000	EXOUT 4.1.4 CHWs have received standardized training that leads to competent care in a VBP environment	OMEAS 4.1.4 Number of trained/registered CHWs
INT 4.1.4 Implement CHW model in 4 population subsets and evaluate results	\$450,000	EXOUT 4.1.5: Organizations have implemented environmental and policy changes in support of healthful behavior	OMEAS 4.1.5 Number of systems and organizations with a policy to allow for reimbursement of CHW services OMEAS 4.1.6 Number of systems and organizations with CHWs integrated into care model
INT 4.2.1 Determine methodology and select community	\$50,000	EXOUT 4.2.1 Multi sector partnership which reports to community on shared common goals	OMEAS 4.2.1 Shared common agenda and measures exist
INT 4.2.2 Develop and recruit coalition from multiple sectors to create common goals for improve community health	\$375,000	EXOUT 4.2.2 A Community Health Assessment Index has been implemented in selected community	OMEAS 4.2.2 Number of organizations contributing data and sharing results on agreed upon schedule
INT 4.2.3 Implement interventions and evaluate outcomes to fulfill agreed upon goals	\$750,000	EXOUT 4.2.3 Mutually reinforcing, evidence based activities are aligned to a VBP environment to maximize community resources and services	OMEAS 4.2.3 Number and type of organizations aligned to implement evidence-based activities OMEAS 4.2.4 Number and type of evidence-based activities happening in the community
	\$1,925,000		
	\$44,404,000		
	\$8,440,400		
	\$52,844,400		

APPENDIX C: TRANSFORMATION TIMELINE

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Timeline of Implementation and Milestones

Key Planning Implementation Evaluation Milestone

	2014	2015	2016
Infrastructure	HIT Review the status of HIT-infrastructure to assess accuracy, access, security, data availability		<ul style="list-style-type: none"> <li>There is a plan for 60% key HIT tools to be self-sustaining</li> <li>Key HIT tools are being used by 60% of providers</li> <li>Assess the impact of HIT tools to support identity verifications</li> </ul>
sMPI	<ul style="list-style-type: none"> <li>Authorizations and rules for governance</li> <li>Award contract to operate sMPI</li> </ul>	<ul style="list-style-type: none"> <li>Monitor the uptake, adoption and use of the sMPI on measures which include end-user, stakeholder feedback.</li> </ul>	
APCD	<ul style="list-style-type: none"> <li>APCD enabled to collect and analyze value metrics</li> </ul>	<ul style="list-style-type: none"> <li>Creation of a measurement protocol of value metrics within the APCD</li> </ul>	<ul style="list-style-type: none"> <li>80% of covered lives in VPB arrangements.</li> </ul>
cHIE	<ul style="list-style-type: none"> <li>Develop necessary infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>cHIE is a quality metrics reporting platform</li> </ul>	<ul style="list-style-type: none"> <li>APCD functions to determine population needs and percent change from volume-based to value-based care</li> <li>Improve 60% of providers' public health and management systems</li> </ul>
VBP Testing	<ul style="list-style-type: none"> <li>Recruit participants</li> <li>Adoption of standardized metrics</li> </ul>	<ul style="list-style-type: none"> <li>First information sharing events</li> </ul>	<ul style="list-style-type: none"> <li>Final measurements analysis to identify best VBP practices</li> </ul>
Quality Metrics	<ul style="list-style-type: none"> <li>Contract for facilitation services</li> <li>Contractor establishes the scope of value metrics</li> <li>Stakeholders create metrics through consensus</li> </ul>		<ul style="list-style-type: none"> <li>60% of clinical quality measures can be accurately tracked to an individual</li> <li>Quality metrics are voluntarily adopted by 60% of Utah's healthcare industry</li> </ul>
Security	<ul style="list-style-type: none"> <li>Functioning Access Monitoring System Streamlined consent process for sSPD</li> <li>Annual EHNAC prioritized correction action plan</li> </ul>		<ul style="list-style-type: none"> <li>100% of HIT enabled tool access are effectively monitored and access is appropriately managed.</li> <li>Validate that 100% of users of key HIT enabled tools have completed security training and testing</li> <li>sSPD serves to protect at least 60% of patients rights and privacy.</li> </ul>
Workforce	<ul style="list-style-type: none"> <li>UMEC given additional staffing to expand surveillance</li> <li>Expand surveillance to include Primary &amp; Behavioral Health</li> </ul>	<ul style="list-style-type: none"> <li>Conduct CM+ trainings</li> </ul>	<ul style="list-style-type: none"> <li>No gaps in health care workforce</li> <li>Reach every provider in Utah</li> </ul>
Increase primary and behavioral health access	<ul style="list-style-type: none"> <li>Implement most effective prevention and treatment practices for Behavioral Health using the ROSC sub-acute matrix</li> <li>Integrate mental, emotional and behavioral health</li> <li>Develop a web-based SBIRT training supplement to live</li> <li>Increase funding to the GATE program</li> <li>First screenings in children aged 8-18 for Substance Abuse</li> <li>Incorporate population needs and outcomes into the supply model of VBR providers</li> </ul>	<ul style="list-style-type: none"> <li>Provide behavioral health services via tele-health to adult and children in underserved and specifically rural area through Primary care</li> <li>Provide available healthcare services to 24 settings in need using SUDC/LMHPs, peer support training and certification, and AHEC sponsored behavioral health training in 9 rural hospitals</li> </ul>	<ul style="list-style-type: none"> <li>Increase primary and behavioral health access in underserved areas by 30%</li> </ul>
Education	<ul style="list-style-type: none"> <li>CM+ curriculum adapted to cover health promotion, HIT and security, quality metrics, patient safety and disclosure</li> <li>Funds released for firms with effective outreach and technical assistance methods to assist medical facilities</li> <li>Expand UCAP</li> </ul>	<ul style="list-style-type: none"> <li>Prepare/train providers to perform in a value-based purchasing and environment</li> </ul>	<ul style="list-style-type: none"> <li>Monitor patient outcome, efficiency measures and clinician satisfaction.</li> <li>Conduct stakeholder interviews. Monitor access to government health plans</li> <li>Reach every provider in Utah</li> </ul>
Proper medical utilization	<ul style="list-style-type: none"> <li>Design curriculum/accreditation programs for CHW and Behavioral Health professionals</li> <li>Build constortium</li> <li>Identification and training of leaders</li> <li>Baseline measurement</li> </ul>	<ul style="list-style-type: none"> <li>Prepare/train providers using Choosing Wisely</li> </ul>	<ul style="list-style-type: none"> <li>Decreased utilization of EMS, ER, Inpatient Hospitalization for Behavioral Health needs and ambulatory care.</li> <li>Decreased number of ED visits with characterization.</li> </ul>
Crucial conversations around unintended events	<ul style="list-style-type: none"> <li>Build constortium</li> <li>Identification and training of leaders</li> <li>Baseline measurement</li> </ul>	<ul style="list-style-type: none"> <li>Teach providers how to have conversations around disclosure and resolution</li> </ul>	<ul style="list-style-type: none"> <li>Decreased number of unanticipated events reported monthly, number of new claims monthly, time spent between event reported and resolution, average yearly cost for liability insurance, patient compensation, non-compensation legal charges.</li> <li>80% of covered lives in VPB arrangements. Access to primary care providers (PCP)/ teams with whom patients can communicate and trust to provide integrated care</li> </ul>
Team-based care	<ul style="list-style-type: none"> <li>State will issue an RFP for technical assistance</li> <li>Provide training to existing practitioners on value based clinical practice</li> </ul>		
ePOLST and AD	<ul style="list-style-type: none"> <li>15% in SLC regional area have a POLST in ePOLST</li> <li>Develop and enhance HIT tools to support ePOLST and AD</li> <li>Baseline measurement</li> <li>Standard form for Advance Directives, assess associated literacy needs</li> </ul>	<ul style="list-style-type: none"> <li>30% in SLC regional area and 15% in rural areas have a POLST in ePOLST</li> <li>Improve awareness to make end-of-life preferences known. Education of community organizations, such as churches, educational systems, legal institutions in End-of-life</li> <li>POLST education campaign</li> <li>Teach providers how to have crucial conversations about making end of life</li> </ul>	<ul style="list-style-type: none"> <li>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 an Advance Directives (AD) form</li> </ul>
Community Health Workers	<ul style="list-style-type: none"> <li>Enhance CHW relationships and connections within Established baseline inventory of payer commitment.</li> <li>Create a business case for the use of CHWs</li> <li>Implement state-wide CHW training curriculum and registration process.</li> <li>CHWs have received standardized training that leads to competent care in a VBP environment</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of CHW model in 4 population</li> </ul>	<ul style="list-style-type: none"> <li>Evaluation of CHW model in 4 populations subsets.</li> <li>CHWs are reimbursed by health systems creating a sustainable funding model for CHW efforts.</li> <li>Improved number of patients with improved control of chronic conditions and related risk factors.</li> <li>ROI of using CHWs to care for patients with chronic conditions and related risk factors.</li> </ul>
Healthful Environments	<ul style="list-style-type: none"> <li>Choose a community</li> <li>Choose a backbone organization</li> <li>Develop, recruit and train coalition from multiple sectors to create common goals to improve community health.</li> <li>A Community Health Assessment Index has been implemented in selected community.</li> </ul>	<ul style="list-style-type: none"> <li>Align all wellness efforts across public, private and non-profit sectors within the community and around a common agenda to improve community health</li> <li>Identification and implementation of best practices</li> <li>Implementation of an evaluation plan</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate outcomes to fulfill agreed upon goals</li> </ul>

**APPENDIX D: EVALUATION MATRIX**

<b>AIM 1: TO ADAPT AND PERFORM WELL IN A VALUE-BASED PURCHASING (VBP) ENVIRONMENT (value = quality outcomes/ cost)</b>						
<b>EXPECTED OUTCOME</b>	<b>OUTCOME MEASURE</b>	<b>DATA SOURCE</b>	<b>LOCATION OF DATA</b>	<b>METHODS/PLAN FOR COLLECTION</b>	<b>FREQUENCY OF COLLECTION/ UPDATE</b>	<b>RESPONSIBLE PARTY</b>
<b>EXOUT 1.1.1</b> An HIT infrastructure that is accurate, has utility to the end-users in terms of person identification and self-sustainable.	<b>OMEAS 1.1.1</b> Percentage of population in Statewide Master Person Index (sMPI)	sMPI Database	UDOH	Survey/Focus group	Semi-Annually	UDOH,
	<b>OMEAS 1.1.2</b> Percentage of clinical quality measures or electronic patient records that can be accurately tracked to an individual	Clinical Quality Measures Database	UDOH	Observation	Semi-Annually	UDOH,
	<b>OMEAS 1.1.3</b> Percentage of providers exchanging patient records electronically as integrated part of care transitions	cHIE	UHIN	Observation	Semi-Annually	UDOH, UHIN
<b>EXOUT 1.1.2</b> Provider groups that have lagged in sharing information in the cHIE will share information at levels equal to that of other providers	<b>OMEAS 1.1.4</b> The percent of these provider groups regularly sharing information through the cHIE	cHIE	HealthInsight, UDOH, UHIN.	Observation	Quarterly	HealthInsight, UDOH, UHIN.
<b>EXOUT 1.2.1</b> Increased security	<b>OMEAS 1.2.1</b> 100% of cHIE, ePolst, APCD and other HIT-enabled tools access is effectively monitored and access is appropriately managed so that the risk of inappropriate access - either unauthorized or authorized access is minimized	cHIE	UHIN	Survey Data, Interviews, Focus Groups	Semi Annually	The Regional Extension Center for HIT in Utah- HealthInsight, The statewide Clinical Health Information Exchange (cHIE) – Utah Health Information Network (UHIN).
	<b>OMEAS 1.2.2</b> 100% of users are authorized users	cHIE	UHIN	Survey Data, Interviews, Focus Groups	Semi Annually	
<b>EXOUT 1.3.1</b> A set of relevant metrics that can be used to measure quality and cost	<b>OMEAS 1.3.1</b> Percent of standardized value metrics and cost per case reimbursement	APCD	Third Party Contractor	Economic Analysis	Quarterly	UDOH
<b>EXOUT 1.3.2</b> Several VBP systems that can be compared for effectiveness	<b>OMEAS 1.3.2</b> A statistical analysis of various VBP approaches that shows the relative effectiveness of various features and components in different health systems environments	TBD	Third Party Contractor	Surveillance	Annually	UDOH
<b>EXOUT 1.3.3</b> Acceleration in the implementation of and increased quality in VBP arrangements	<b>OMEAS 1.3.3</b> Percentage and quality of VBP implementations among private and public (Medicaid, CHIP, etc) systems	Grant Reporting	UDOH	Surveillance	Annually	UDOH
<b>EXOUT 1.3.4</b> Improved providers-public health reporting and management systems	<b>OMEAS 1.3.4</b> Number and quality of VBP arrangements between small providers and public health	Grant Reporting	UDOH	Surveillance	Annually	UDOH
<b>EXOUT 1.4.1</b> Increase in value driven integrated care and reimbursement	<b>OMEAS 1.4.1</b> Estimates of the need for behavioral health in integrated care environment tied to utilization of services	POLARIS, IBIS, APCD	UDOH	Secondary Analysis	Semi Annually	UDOH
<b>EXOUT 1.5.1</b> Increase in value-based trained providers delivering better health and better care	<b>OMEAS 1.5.1</b> Access to primary care providers (PCP)/ teams with whom patients can communicate and trust to provide integrated care	Healthy People 2010	Medical Expenditure Panel Survey (MEPS), AHRQ	Surveillance	Annually	UDOH
	<b>OMEAS 1.5.2</b> Decreased number of ED visits with characterization of ambulatory care sensitive condition appropriateness	State ED, IBIS,	UDOH	Surveillance	Annually	UDOH
	<b>OMEAS 1.5.3</b> Use of radiographic imaging for pediatric head trauma age 2-12 in ED	State ED, IBIS, APCD	UDOH	Surveillance	Annually	Collaborative
	<b>OMEAS 1.5.4</b> Use of radiographic imaging for low back pain in first 6 weeks of pain	APCD	UDOH	Surveillance	Annually	Collaborative
	<b>OMEAS 1.5.5</b> Use of routine labs in ED and inpatient	APCD, State ED, IBIS	UDOH	Surveillance	Annually	Collaborative
	<b>OMEAS 1.5.6</b> Number of unanticipated events reported monthly, number of new claims monthly, average yearly cost for liability insurance, patient compensation, non-compensation legal charges	Collaborative, UMIA, UDOH	UDOH	Surveillance	Annually	Collaborative
<b>AIM 2: TO FACILITATE END-OF-LIFE PREFERENCES FOR UTAH CITIZENS WITH DIGNITY, RESPECT AND EFFICIENCY</b>						
<b>EXPECTED OUTCOME</b>	<b>OUTCOME MEASURE</b>	<b>DATA SOURCE</b>	<b>LOCATION OF DATA</b>	<b>METHODS/PLAN FOR COLLECTION</b>	<b>FREQUENCY OF COLLECTION/ UPDATE</b>	<b>RESPONSIBLE PARTY</b>
<b>EXOUT 2.1.1</b> Improve awareness and process to make end-of-life preferences known to providers.	<b>OMEAS 2.1.1</b> Percentage of SNF and Hospice providers using the electronic Physician Orders for Life-Sustaining Treatment (ePOLST) for end-of life wishes (POLST in ePOLST)	ePOLST Registry	TBD	Observation	Annually	Leaving Well Coalition, UDOH, UHIN, U of U
	<b>OMEAS 2.1.2</b> Percentage of targeted population with their Physician Orders for Life-Sustaining Treatment (POLST) and Advanced Directives documented in electronic Physician Orders for Life-Sustaining Treatment (ePOLST)	ePOLST Registry	TBD	Observation	Annually	
<b>EXOUT 2.1.2</b> Improved awareness and process of patient expression of End-of-Life preferences	<b>OMEAS 2.1.3</b> Number/percentage of in-patients with DNRs, POLST and advanced directives	State chartfield in hospital DC database	Consortium- UMA & HealthInsight	Observation	Annually	Consortium- UMA, HealthInsight, Physician Leafers, Community Organizations
	<b>OMEAS 2.1.4</b> Number of in-patient and primary care providers having conversations about advanced directives, DNR, POLST	Grant Reporting	Consortium- UMA & HealthInsight	Survey	Annually	
<b>EXOUT 2.1.3</b> Improved understanding of end-of-life options and declaration of preferences via advanced directive and ePOLST documentation	<b>OMEAS 2.1.5</b> Percentage of Utah adults that have documented end-of-life preferences through ePOLST	ePOLST	Consortium- UMA & HealthInsight	Surveillance	Annually	Utah Commission on Aging
<b>AIM 3: TO INCREASE ACCESS TO PRIMARY CARE &amp; BEHAVIORAL HEALTH</b>						
<b>EXPECTED OUTCOME</b>	<b>OUTCOME MEASURE</b>	<b>DATA SOURCE</b>	<b>LOCATION OF DATA</b>	<b>METHODS/PLAN FOR COLLECTION</b>	<b>FREQUENCY OF COLLECTION/ UPDATE</b>	<b>RESPONSIBLE PARTY</b>
<b>EXOUT 3.1.1</b> Improved quality and lower cost therefore improved value	<b>OMEAS 3.1.1</b> Percentage of adults who reported symptoms of a major depressive episode (MDE) in the last 12 months who received treatment for depression in last 12 months	SAMHSA	Collaborative - Utah EMS, DHS, DOPL	Questionnaire	Annually	Utah EMS, DHS, DOPL
	<b>OMEAS 3.1.2</b> Utilization of EMS, ER, Inpatient Hospitalization for Behavioral Health Needs	IHC, UDHS, SLC	UDOH, DHS	Surveillance	Annually	UDOH
	<b>OMEAS 3.1.3</b> Number of adults who need care right away for an illness, injury, or condition in the last 12 months who sometimes or never got care as soon as wanted	AHRQ Medical Expenditure Panel Survey 2010	AHRQ	Questionnaire	Annually	UDOH
	<b>OMEAS 3.1.4</b> Screenings in children aged 8-18 for Substance Abuse (SA)	TBD	TBD	Observation	Annually	GATE U of U, DHS
<b>AIM 4: TO CREATE COMMUNITY-CLINICAL LINKAGES AND HEALTHFUL ENVIRONMENTS</b>						
<b>EXPECTED OUTCOME</b>	<b>OUTCOME MEASURE</b>	<b>DATA SOURCE</b>	<b>LOCATION OF DATA</b>	<b>METHODS/PLAN FOR COLLECTION</b>	<b>FREQUENCY OF COLLECTION/UPDATE</b>	<b>RESPONSIBLE PARTY</b>
<b>EXOUT 4.1.1</b> Established baseline inventory of payer commitment	<b>OMEAS 4.1.1</b> Number of patients with improved control of chronic conditions and related risk factors	Clinical Data Source	UDOH	Surveillance	Annually	UDOH
<b>EXOUT 4.1.2</b> CHWs are reimbursed by health systems and organizations thus creating a sustainable funding model for CHW efforts	<b>OMEAS 4.1.2</b> ROI of using CHWs to care for patients with chronic conditions and related risk factors	APCD	UDOH & Community Partners	Surveillance	Annually	UDOH & Community Partners
<b>EXOUT 4.1.3</b> Community clinical linkages support CHWs in helping patients access resources to improve their health	<b>OMEAS 4.1.3</b> Number of patients appropriately accessing emergency and preventive services	ER Data, APCD	Utah EMS, IBIS	Economic Analysis	Annually	UDOH
<b>EXOUT 4.1.4</b> CHWs have received standardized training that leads to competent care in a VBP environment	<b>OMEAS 4.1.4</b> Number of trained/registered CHWs	Training Registry	UDOH	Observation	Annually	CHW Association
<b>EXOUT 4.1.5:</b> Organizations have implemented environmental and policy changes in support of healthful behavior	<b>OMEAS 4.1.5</b> Number of systems and organizations with a policy to allow for reimbursement of CHW services	Reports from Partnership	TBD	Observation	Annually	TBD
	<b>OMEAS 4.1.6</b> Number of systems and organizations with CHWs integrated into care model	Reports from Partnership	TBD	Observation	Annually	TBD
<b>EXOUT 4.2.1</b> Multi sector partnership which reports to community on shared common goals	<b>OMEAS 4.2.1</b> Shared common agenda and measures exist	Reports from Partnership	TBD	Observation	Annually	TBD
<b>EXOUT 4.2.2</b> A Community Health Assessment Index has been implemented in selected community	<b>OMEAS 4.2.2</b> Number of organizations contributing data and sharing results on agreed upon schedule	Reports from Partnership	TBD	Surveillance	Annually	TBD
<b>EXOUT 4.2.3</b> Mutually reinforcing, evidence based activities are aligned to a VBP environment to maximize community resources and services	<b>OMEAS 4.2.3</b> Number and type of organizations aligned to implement evidence-based activities	Reports from Partnership	TBD	Surveillance	Annually	TBD
	<b>OMEAS 4.2.4</b> Number and type of evidence-based activities happening in the community	Reports from Partnership	TBD	Surveillance	Annually	TBD

**GLOSSARY OF ACRONYMS**

AAUC	Alzheimer’s Association, Utah Chapter
ACO	Accountable Care Organization
ACS	American Community Survey
ADRC	The Utah Aging and Disability Resource Connection
ADRD	Alzheimer’s Disease and Related Disorders
ADSSP	Alzheimer’s Disease Supportive Services Program
AHEC	Area Health Education Center
AHRQ	Agency for Healthcare Research and Quality
AoA	Administration on Aging
APCD	All Payer Claims Database
ARCHES	Advancing Rural Connections for Healthcare and E-health Services
BRFSS	Behavioral Risk Factors Surveillance System
BW/EI	Baby Watch/Early Identification
CAHPS	Consumer Assessment of Health Provider & Systems
CDSME	Chronic Disease Self-Management Education Programs
CDSMP	Chronic Disease Self-Management Program
CHAI	Community Health Assessment Index
CHIC	Children’s Health Care Improvement Collaborative
cHIE	Clinical Health Information Exchange
CHIPRA	Children’s Health Insurance Program Reauthorization Act
CHW	Community Health Worker
CM+	Care Management Plus
CMS	Centers for Medicare and Medicaid Services
CPPW	Communities Putting Prevention to Work
CSHCN	The Utah Children with Special Health Care Needs
CWA	Common Wellness Agenda
DAAS	The Utah State Division of Aging and Adult Services
DHS	Utah Department of Human Services
DMHF	Division of Medicaid and Healthcare Financing
DNR	Do not resuscitate
DOPL	Utah Division of Occupational & Professional Licensing
DSAMH	The Utah Division of Substance Abuse and Mental Health
DSPD	Division of Services for People with Disabilities
DWS	Utah’s Department of Workforce Services
ECCS	The Early Childhood Comprehensive System Grant
ECDIP	Early Childhood Statewide Data Integration Project
ED	Emergency Department
EMS	Emergency Medical Services
ENHAC	Electronic Healthcare Network Accreditation Commission
EPG	Executive Policy Group

**GLOSSARY OF ACRONYMS**

EPICC	The Healthy Living through Environment, Policy and Improved Clinical Care
ePOLST	Electric POLST Physician ordered life sustaining treatment
FQHC	Federally Qualified Health Centers
GATE	Giving Access to Everyone
GOED	Governor’s Office of Economic Development
HAI	Healthcare-Associated Infections
HAIWG	Healthcare-Associated Infection Work Group
HCCI	Utah’s Healthy Child Care Initiative
HDC	Health Data Committee
HEDIS	Healthcare Effectiveness and Data Information Set
HIE	Health information exchange
HIPAA	Health Insurance Portability and Accountability Act
HIPUtah	Comprehensive Health Insurance Pool- Utah
HIT	Health information technology
HITECH	The Health Information Technology for Economic and Clinical Health
HMO	Health maintenance organization
HP2020	Healthy People 2020
HPSA	Health Provider Shortage Area
HRSA	This Health Resources and Services Administration
IBIS	Indicator-Based Information System
IBIS-PH	Indicator-Based Information System for Public Health
IC3	Utah Improving Care through Connectivity and Collaboration
ICF/ID	Intermediate Care Facility/Intellectual Disabilities
IH	Intermountain Healthcare
IHC	Intermountain Health Care
LINC	Linking Information Necessary for Care
LMHA	local mental health authority
LMHTs	licensed mental health therapist
LSAA	local substance abuse authority
LSAAs	local substance abuse authorities
MCH	Maternal Child Health
MCO	Managed care organization
MEB	Mental, emotional, and behavioral
MEPS	Medical expenditure panel survey
MONAHRQ	My Own Network, Powered by AHRQ
MPI	Master Person Index
NAMI	National Association of Mental Illness
NEDSS	National Electronic Disease Surveillance System
NEMT	Non-Emergency Medical Transport
OHCS	Office of Health Care Statistics
ONC	The Office of the National Coordinator for Health Information Technology
PANO	Physical Activity, Nutrition and Obesity Program

## GLOSSARY OF ACRONYMS

PCN	Primary Care Network
PCP	Primary Care Provider
PHI	Protected health information
PIP	Parent Infant Program
POLARIS	Prehospital OnLine Active Reporting Information System
POLST	Physician ordered life sustaining treatment
PPCP	Preferred Primary Care Provider
PPCs	Provider Preventable Conditions
PPO	Preferred Provider Organization
PRAMS	Pregnancy Risk Assessment Monitoring System
REC	Regional Extension Center
ResDAC	Research Data Assistance Center
RFP	Request for Proposal
SAMHSA	Substance Abuse and Mental Health Services Administration
SBIRT	Screening, Brief Intervention, Referral to Treatment
SIM	State Innovation Model
SL COUNTY	Salt Lake County
sMPI	Statewide-Master Patient Index
SOP	a standard operating procedures
SPT	Substance Abuse Prevention Treatment
SRI	Social Research Institute
sSPD	statewide secured patient directory
SUDC	substance use disorder counselors
TB	Tuberculosis
TOP Star	Targeting Obesity in Preschool/Child Care Settings
U of U	University of Utah
UCAP	Utah Cluster Acceleration Partnership
UCCS	Utah Coalition for Caregiver Support
UDOH	Utah Department of Health
UEMS	Utah Emergency Medical Services
UHA	Utah Hospital Association
UHIN	Utah Health Information Network
UMA	Utah Medical Association
UMEC	Utah Medical Education Council
UNI	University Neuropsychiatric Institute (U of U)
UPD	Utah Provider Directory
UPP	Utah Premium Partnership
USDB	The Utah Schools for the Deaf and the Blind
USHE	Utah System of Higher Education
Utah EMS	Utah Department of Health Emergency Medical Services Bureau
VBP	Value-based purchasing

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