2016 Community Health Needs Assessment

American Fork Hospital

Intermountain® Healthcare

**Intermountain American Fork Hospital
Community Health Needs Assessment
2016**

**American Fork Hospital
170 North 1100 East
American Fork, Utah 84003**

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Summary

Intermountain Healthcare created a system-wide Community Health Needs Assessment (CHNA) process to be used by each of its hospitals to identify local area health needs and understand how to help people live the healthiest lives possible.

Intermountain American Fork Hospital collaborated with the Utah County Health Department and the Utah Department of Health to identify health indicators, gather data, analyze, and then prioritize those indicators to determine the significant health needs to address over the next several years. Health improvement activities to address the prioritized need are detailed in a separate Implementation Strategy Plan.

As a result of this extensive needs assessment and prioritization process, described in the following pages, American Fork Hospital and Intermountain identified the priority health need as:

Prevention of prediabetes, high blood pressure, depression, and prescription opioid misuse

This report focuses on the adult health needs of the American Fork Hospital community. Child and adolescent health needs are reported in the Intermountain Primary Children's Hospital CHNA Report. Primary Children's is the pediatric specialty and referral hospital for the state of Utah.

The 2016 CHNA report informs Intermountain leadership, public health partners, and community stakeholders of the significant health needs in our community, allowing hospitals and their local partners to develop strategies that leverage Intermountain and community resources to address those needs throughout the Intermountain system.

The Patient Protection and Affordable Care Act (ACA) requires each not-for-profit hospital to conduct a CHNA every three years and to develop an implementation strategy to address, measure, and report impact of significant health priorities.

This report fulfills the ACA reporting requirement to make results of the CHNA publicly available. This report has been reviewed and approved by the Intermountain South Region Governing Board.

American Fork Hospital is one of Intermountain's 22[1] hospitals located in Utah and southeastern Idaho. Intermountain's system-wide process for conducting the CHNA for each hospital community includes:
- Asking for broad community input regarding local health needs including needs of medically underserved and low-income populations
- Analyzing and prioritizing health indicators to identify significant needs
- Making the CHNA results publicly available

Intermountain hospital leaders, Community Benefit, and Strategic Planning and Research staff members conducted community input meetings that were co-hosted by each hospital, the local health department, and the Utah Department of Health. Invitees represented the broad interests of the residents, including the healthcare needs of medically underserved and low-income populations.

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[1] Intermountain owns and operates 21 hospitals in Utah and southeastern Idaho and manages Garfield Memorial Hospital, owned by Garfield County, in Panguitch, Utah. Intermountain included Garfield Memorial Hospital in its system-wide CHNA. For purposes of this report, reference will be made to 22 hospitals to include this hospital.

Participants included minority, low-income, and uninsured populations, safety net clinic employees, school representatives, health advocates, mental health providers, local government leaders, senior service providers, and others.

Intermountain collaborated with local health departments, the Utah Department of Health, and internal clinical and operational leadership to identify 100 health indicators representing 16 broad health issues. The indicators form the core of public health data that Intermountain, local health departments, and the Utah Department of Health used/will use for each of their own needs assessments. The Utah Department of Health Office of Public Health Assessment assembled the 100 health indicator data for each of Intermountain's 22 hospital communities.

Intermountain developed a process to prioritize significant health needs. Representatives from local health departments, the Utah Department of Health, Intermountain hospitals and governing boards, and clinical and operational leadership, were invited to participate in the prioritization process. Participants reviewed summaries of community input meetings and health indicator data and completed a survey to quantify the relative priority of the 16 broad health issues.

The priority health need: the prevention of prediabetes, high blood pressure, depression, and prescription opioid misuse; reflects results of the prioritization process that revealed preventive services, overweight and obesity, diabetes conditions, cardiovascular conditions, mental health issues, and addictive behaviors as the top health issues. Selecting a single, specific health issue as the identified need provides clarity and guidance for implementation strategies.

Results of the CHNA were used to develop a three-year implementation strategy for American Fork Hospital to address the significant health need using evidence-based programs. Outcome measures for the implementation strategy will be defined and tracked quarterly over three years; impact of the strategy will be reported annually.

Community Health Needs Assessment Background

American Fork Hospital's first CHNA was part of Intermountain's 2009 comprehensive assessment to identify significant community health needs, especially for low-income residents in Utah and southeastern Idaho communities. From data review and consultation with not-for-profit and government partners, Intermountain identified these health priorities:

- Chronic disease associated with weight and unhealthy behaviors
- Access to healthcare for low-income populations
- Access to behavioral health services for low-income populations

Intermountain addressed these priorities to improve healthcare for low-income populations, reduce the cost of healthcare for Intermountain and the community, and focused on the healthcare needs of each community where its hospitals are located. The health priorities aligned with *Healthy People 2010* goals (a national program to attain high-quality, longer lives free of preventable disease, disability, injury, and premature death) and Intermountain clinical goals. The 2009 CHNA guided Intermountain's community health improvement efforts and the community health goals of its hospitals, clinics, and programs.

The Patient Protection and Affordable Care Act (ACA) requires that each not-for-profit hospital solicit input from people representing the broad interests of the community, gather quantitative data, identify and prioritize significant health needs, create strategies to address the needs, make the CHNA results public, and report on the IRS Form 990 Schedule H. Intermountain conducted another CHNA in 2013; identified the same three health priorities from the 2009 assessment and added a fourth on childhood accident and injury prevention.

New requirements, effective January 1, 2016 from the Department of the Treasury, guided the 2016 CHNA process design. Intermountain's Community Benefit and Strategic Planning and Research Departments created a system-wide process for each of its hospitals in conducting components of the CHNA and creating plans to address the significant need by:

- Soliciting community input regarding local health needs
- Collecting quantitative data on health indicators
- Prioritizing health indicators to identify significant needs
- Making the CHNA results publicly available
- Developing an implementation strategy to address the significant priority
- Making the implementation plan publicly available

Defining the American Fork Hospital Community

American Fork Hospital is one of 22 Intermountain Healthcare owned and operated hospitals in Utah and southeast Idaho. Located in the urban community of American Fork, Utah, the hospital has 89 staffed beds and offers a broad spectrum of inpatient and outpatient services. In 2015, the hospital provided more than $6.4 million[2] in financial assistance to patients in over 4,500 cases.

Hospitals in Utah County
- Intermountain American Fork Hospital
- Intermountain Orem Community Hospital
- Intermountain Utah Valley Regional Hospital
- Mountain Point Medical Center
- Mountain View Hospital
- Timpanogos Regional Hospital

Safety Net Clinics and Federally Qualified Health Centers (FQHC) providing healthcare services to uninsured, low-income, and homeless people in Utah County
- Health Clinics of Utah: Provo
- Mountainlands Family Health Center- Provo*
- Mountainlands Family Health Center- East Bay* (Homeless Clinic)
- Mountainlands Family Health Center - Payson*
- Mountainlands Family Health Center – Wasatch*
- Planned Parenthood Association- Orem
- Volunteer Care Clinic

   Federally Qualified Health Center

Intermountain School Clinic
- Dixon Middle School Clinic

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[2] Total gross charges; adjusted financial assistance based on standards established by Utah State Tax Commission is $3.6 million.

Utah County

U.S. Census Quick Facts 2015[3]	Utah County	Utah	U.S.
Population (2015)	575,205	2,995,919	321,418,820
Population per square mile	257.8	33.6	87.4
Land area in square miles	2,003.45	82,169.62	3,531,905.43
Persons Under 18	34.6%	30.5%	22.9%
Persons 65 years and over	7.3%	10.3%	14.9%
Language other than English spoken at home, percent of persons age 5+	13.2%	14.6%	20.9%
High school graduate or higher, percent of persons age 25+	93.5%	91.0%	86.3%
Bachelor's degree or higher, percent of persons age 25+	36.9%	30.6%	29.3%
Persons in poverty	12.6%	11.7%	14.8%
Race and Hispanic Origin:			
White	83.0%	79.0%	61.6%
Hispanic or Latino	11.4%	13.7%	17.6%
Black or African American	0.8%	1.3%	13.3%
American Indian and Alaska Native	0.8%	1.5%	1.2%
Asian	1.7%	2.5%	5.6%
Native Hawaiian and Other Pacific Islander	0.9%	1.0%	0.2%

The American Fork Hospital community was defined by the zip codes in which a majority of inpatient discharges reside. The hospital community includes medically underserved, low-income, and minority populations. These zip codes were used to assemble available data for health indicators:

84003 American Fork	84004 Alpine	84005 Eagle Mountain
84013 Cedar Valley	84042 Lindon	84043 Lehi
84045 Saratoga Springs	84062 Pleasant Grove	

In 2014, approximately 14.4 percent of the population in the American Fork Hospital community (defined by zip codes) was uninsured. [4]

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[3] United States Census, 2015 Quick Facts, http://quickfacts.census.gov
[4] Utah Department of Health Behavioral Health Risk Factor Surveillance System (BRFSS) Combined Landline and Cell Query Module – Healthcare Coverage [Healthy People 2020 AHS-1]

CHNA Process Planning, Governance, and Collaboration

Intermountain's mission of helping people live the healthiest lives possible® is best realized with a comprehensive understanding of the health needs of the community served by its hospitals, clinics, and health plans. Intermountain is committed to routinely assessing the community's health needs through a comprehensive assessment process that both engages members of the community and analyzes the most current health status information. Intermountain uses the assessment to inform its system-wide and local strategies to improve community health.

Several committees within Intermountain guided the assessment and implementation planning process. This engagement led to a commitment from leaders to apply the assessment results in a three-year cycle to create health improvement strategies in the communities where our facilities are located.

- The Community Health Improvement Guidance Council, established in early 2014, provides strategic direction for Intermountain's Community Health Improvement activities, including the development of the 2016 CHNA and Implementation Strategy Planning process. The Council includes executive leadership from Population Health, Strategic Planning, SelectHealth, (Intermountain's insurance company), Clinical Operations, Medical Group Operations, Legal, Tax, Finance, Communications, and Community Benefit to facilitate alignment with Intermountain strategy and ensure compliance with relevant tax and regulatory requirements. The Council established Guiding Principles for Community Health Improvement during 2014 which guided the development of the 2016 CHNA and Implementation Strategy Process.
- The Community Benefit Steering Committee provides tactical leadership to integrate the CHNA, implementation strategies, and other health improvement initiatives within the Intermountain system while supporting collaborative work with public health departments and other stakeholders. The Steering Committee includes senior leaders for hospital operations, Integrated Care Management, Strategic Planning and Research, Population Health, Behavioral Health, Communications, Medical Group, SelectHealth, and regional Community Benefit.
- The CHNA Executive Committee coordinated the subcommittees and managed the hand-off of each stage in the process through final public reporting. Subcommittees included: Communications, Data Collection, Health Need Prioritization, Evaluation, and Implementation Planning.
- Community Benefit Managers representing geographic areas of Intermountain's service area coordinated local hospital activities including planning and identifying community members with whom to solicit input, convening meetings to report on the CHNA results, exploring potential collaborations, and planning strategies with local health departments and agencies to address the significant health need. Long-term and emerging relationships with community partners and local hospital Community Benefit staffs have led to opportunities for collaborative strategies to address health needs.
- The Community Advisory Panel was convened to provide public health expertise and community guidance to Intermountain in its CHNA and to formalize collaborative partnerships with the local health departments where Intermountain facilities are located. The role of the panel included providing recommendations on designing the collaborative assessment that met Intermountain and public health departments' needs; identifying the health indicators; co-hosting community input meetings; reviewing data results; providing input to prioritize needs; and participating in planning strategies to address the significant health need.

Success of the collaborative CHNA with local and state health departments has resulted in the panel members committing to expand the membership to share information, leverage resources, and measure and evaluate community health improvement strategies together for the benefit of people throughout our service areas. Membership on the Community Advisory Panel includes:

- o Leadership from the Association for Utah Community Health (Federally Qualified Health Centers)
- o Representatives from HealthInsight (Utah's designated quality improvement organization and quality innovation network)
- o Leadership from Utah's public behavioral health system, Davis Behavioral Health, Southwest Behavioral Health Center; Utah Division of Substance Abuse and Mental Health, Wasatch Mental Health, and Weber Human Services
- o Executive directors from the following health departments: Davis County Health Department, Central Utah Health Department, Wasatch County Health Department, Summit County Health Department, Utah County Health Department, Utah Department of Health, Wasatch County Health Department, and Weber-Morgan Health Department
- o Representatives of Intermountain Community Benefit Department, Strategic Planning and Research Department, and Medical Group Clinics

CHNA Methodology

Following the Intermountain system-wide approach, American Fork Hospital conducted its 2016 CHNA by:

- Asking for broad community input regarding local health needs including needs of medically underserved and low-income populations
- Gathering quantitative data collection on health indicators
- Reviewing Area Deprivation Index map
- Analysis and prioritization of health needs indicators to identify significant needs
- Making the CHNA results publicly available

Community Input

American Fork Hospital, Central Utah Public Health Department, and the Utah Department of Health co-hosted the community input meeting. Invitees included representatives of the following groups:

- Food pantries
- Health advocate groups
- Healthcare providers
- Human service agencies
- Law enforcement
- Local business
- Local government
- Low-income, uninsured, underserved populations
- Mental health service providers
- Minority organizations
- Safety net clinics
- School districts
- State and local health departments

These participants, representing a broad range of interests, including the healthcare needs of uninsured and low-income people, were invited to attend the meeting to share their perspectives on health needs in the hospital's community. Staff from Intermountain facilitated the meeting on May 26, 2015 which was manually and digitally recorded and transcribed.

Discussion highlighted specific issues in the community, concrete examples of challenges, perceptions, and strategies for addressing health needs. An online survey was sent to people who could not attend

the community input meeting to encourage more representative feedback and engage all who were invited. Not all the people who received the surveys responded to the request. Representatives from the following organizations were included:

- Ability First
- Alpine School District
- American Fork - Hillcrest Church of Jesus Christ of Latter Day Saints
- American Fork City
- American Fork Parent Teacher Student Association
- Centro Hispano
- Community Action Program
- Greenwood Elementary
- Head Start - Kids on the Move
- Highland City
- Intermountain American Fork Hospital
- Intermountain Healthcare
- Lindon City Council
- Mountainlands Applied Technology President
- Mountainlands Community Health Center
- Thanksgiving Point
- Utah County Health Department
- Utah Valley University
- Wasatch Mental Health

Health Indicators

The selection of reliable, meaningful health indicators was an important part of the 2016 CHNA. First, Intermountain created an inventory of health indicators used in the 2009 and 2013 assessments and compared those indicators with published needs assessments and/or annual reports from the Utah Department of Health and local health departments. Second, an extensive literature review of national reporting metrics, particularly those used by *Healthy People 2020,*[5] also contributed indicators to the inventory. Third, the staff conducted interviews with epidemiologists at the Utah Department of Health and local health departments to identify additional indicators important to their own needs assessments and specific measures for each with good reliability and availability. The Community Advisory Panel reviewed the list and provided final recommendations.

Next, the 100 indicators were grouped into 16 different broad health issues to simplify and organize discussions of data. The groupings were based on recommendations from the Institute of Medicine[6] and *Healthy People 2020.*[7] Finally, the completed list of 100 indicators grouped by 16 broad health issues was presented to and approved by Intermountain's Community Benefit Steering Committee and Community Health Improvement Guidance Council.

Intermountain collaborated with the Utah Department of Health Office of Public Health Assessment to assemble available data on health indicators for each hospital community. Analysts aggregated two or three years of data for each indicator to achieve a large enough sample size to have a reliable estimate for each health indicator. The Appendix contains data for each indicator for the American Fork Hospital service area, the Intermountain service area, the state of Utah, and the United States.

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[5] https://www.healthypeople.gov/2020/topics-objectives
[6] Vital Signs: Core Metrics for Health and Health Care Progress, Institute of Medicine Committee on Core Metrics for Better Health at Lower Cost, 2015
[7] www.healthypeople.gov/2020/tools-resources

The following table lists the health indicators and respective groupings for the 2016 CHNA:

Addictive Behaviors
· Drug poisoning deaths
· Cigarette smoking
· E-cigarette use
· Smokeless tobacco use
· Binge drinking
· Chronic drinking

Cancers
· All cancer deaths
· Breast cancer diagnosis
· Colon cancer diagnosis
· Lung cancer diagnosis
· Skin cancer diagnosis

Cardiovascular Conditions
· High blood pressure
· High cholesterol
· Cardiovascular deaths
· Heart failure deaths
· Cerebrovascular deaths

Care Access
· No health insurance
· Cost as a barrier to care
· Have personal provider
· Non-emergent ED use
· Dental visit within year

Diabetes Conditions
· Prediabetes
· Diabetes

General Health Status
· Fair or poor

Maternal & Child Health
· Infant mortality
· No prenatal care until 3rd trimester
· Multivitamin use before pregnancy
· Preterm births
· Low birth weight
· Gestational diabetes
· Obese BMI prior to pregnancy
· Excess gestational weight gain
· Alcohol use during pregnancy
· Smoking during pregnancy
· Breastfeeding
· Births from unintended pregnancy
· Duration between pregnancies less than 13 mo.
· Births to women under 18

Mental Health
· Mental health status
· Suicide
· Attempted suicide by minors
· Depression

Other Chronic Conditions
· Arthritis
· Alzheimer's disease

Other Infectious Diseases
· Chlamydia
· Gonorrhea
· HIV
· Syphilis, all stages
· Hepatitis C, chronic
· Hepatitis C, acute
· West Nile virus, total
· Tuberculosis, active
· Campylobacter
· Shiga toxin-producing E.coli
· Salmonellosis
· Giardiasis
· Cryptosporidiosis
· Rabies, animal

Overweight and Obesity
· Overweight
· Obese
· Recommended physical activity
· Vegetable consumption
· Fruit consumption

Preventive Services
· Mammogram
· Cholesterol checked
· Colon cancer screening
· Influenza vaccination
· Pneumococcal vaccinations
· Childhood vaccination
· Sun safety
· HIV testing

Respiratory Conditions
· Asthma
· COPD

Social Determinants of Health
· Social determinants of health
· Income
· Education
· Persons living in poverty
· Households headed by a single female

Vaccine Preventable Diseases
· Pertussis
· Influenza-associated hospitalization
· Hepatitis B, chronic
· Hepatitis B, acute
· Hepatitis A
· Tetanus
· Diphtheria
· Varicella (chickenpox)

Violence and Injury Prevention
· Seatbelt use
· Helmet use by minors
· Unintentional injury deaths
· Any motor vehicle deaths
· Firearm deaths
· Drowning deaths
· Poisoning deaths
· Burn deaths

Area Deprivation Index
Income, education, and other economic and social risk factors affect individual health and well-being. The Area Deprivation Index (ADI) is a validated, community socio-economic composite measure developed specifically for Utah by Intermountain. The ADI measures the distribution of socio-economic disadvantage within a community at the U.S. Census block group level. Higher socio-economic deprivation levels in communities (noted in orange and red on the map below) are often associated with poorer health and health delivery outcomes. While the ADI does not provide information on specific health needs in a community, it does provide context and information about segments of communities in which greater health disparities may be expected and where implementation strategies could be targeted.

Elements included in the Area Deprivation Index:

- Median family income (dollars)
- Income disparity
- Percent of families below poverty level
- Percent of population below 150 percent poverty threshold
- Percent of single parent households with dependents under age 18
- Percent of households without a motor vehicle
- Percent of households without a telephone
- Percent of housing units without complete plumbing
- Percent occupied housing units

- Percent of households with less than one person per room
- Median monthly mortgage (dollars)
- Median gross rent (dollars)
- Median home value (dollars)
- Percent of employed persons over age 16 with a white collar occupation
- Percent of unemployed civilian labor force over age 16
- Percent of population over age 25 with less than nine years of education
- Percent of population over age 25 with at least a high school education
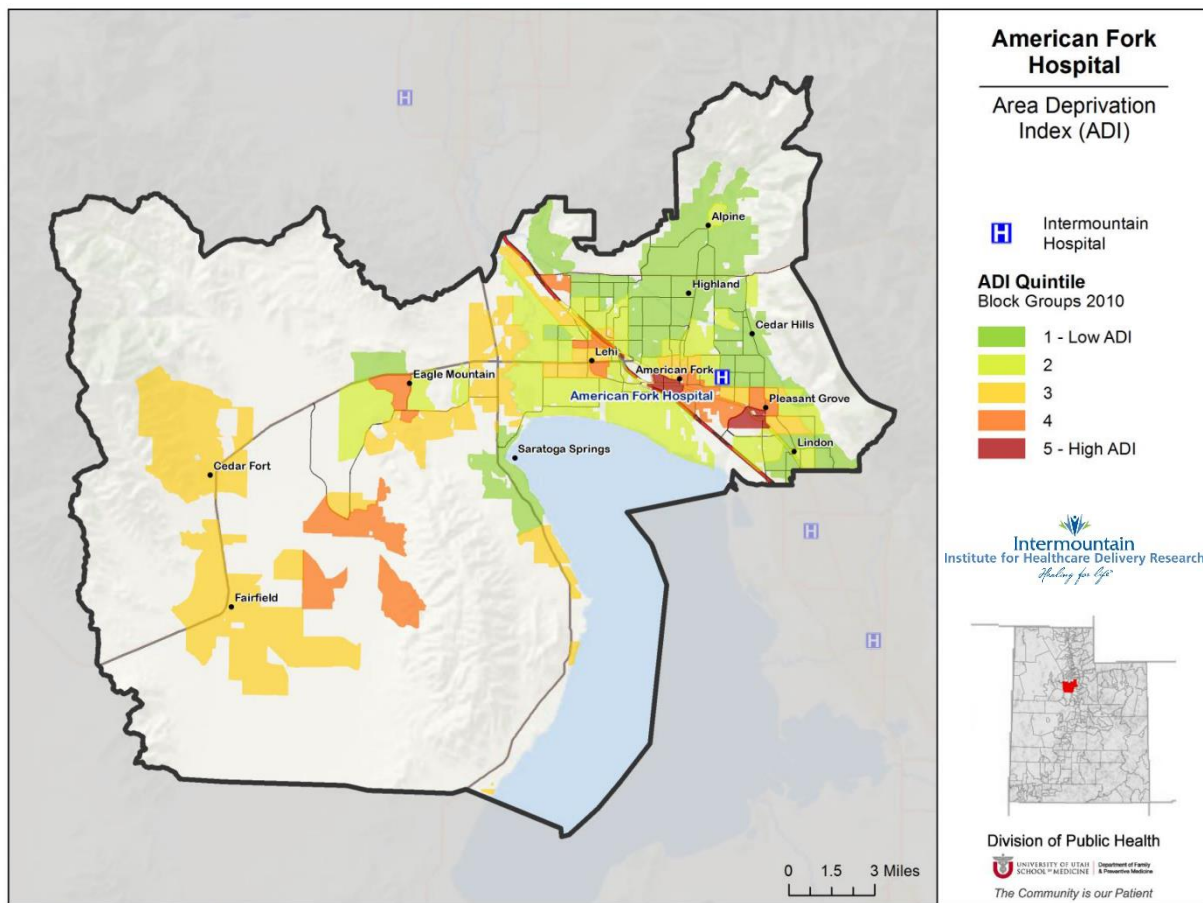
Prioritization
Intermountain engaged its internal and external partners in a rigorous prioritization process to identify significant health needs in each hospital community. Prioritization involved identifying dimensions, determining the weight for each, inviting key stakeholders to evaluate the 16 broad health issues on those dimensions, and calculating scores to identify the significant health need.

Intermountain identified dimensions for prioritization using practices established by public health professionals. [8, 9,10,11,12] The dimensions reflect needs assessment best practices, ACA requirements, and Intermountain strategic goals.

Dimensions included:
- **Affordability**: the degree to which addressing this health issue can result in more affordable healthcare
- **Alignment**: the degree to which the health issue aligns with Intermountain Healthcare's or stakeholder organization's mission and strategic priorities
- **Community input**: the degree to which community input meetings highlighted it as a significant health issue
- **Feasibility**: the degree to which the health issue is feasible to change, taking into account resources, evidence-based interventions, and existing groups working on it
- **Health equity**: the degree to which the health issue disproportionately affects population subgroups
- **Seriousness**: the degree to which the health issue is associated with severe outcomes such as mortality and morbidity, severe disability, or significant pain and suffering
- **Size**: the number of people affected by the health issue
- **Upstream**: the degree to which the health issue is upstream from and a root cause of other health issues

Intermountain's Community Benefit Steering Committee determined weights for each dimension through a survey process; committee members indicated the relative weight (out of 100 percent) that each dimension should carry. Scores were averaged across committee members to create the assigned weight for each dimension.

Final weights are shown in the chart.

Dimension	Weight
Affordability	14%
Feasibility	14%
Upstream	14%
Health equity	12%
Seriousness	12%
Size	12%
Community input	11%
Alignment	11%

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[8] Association for Community Health Improvement (2007). ACHI Community Health Assessment Toolkit. Available at http://www.assesstoolkit.org/assesstoolkit/member/Priorities/index.jsp
[9] Centers for Disease Control and Prevention. Assessment Protocol for Excellence in Public Health: Appendix E. Available at http://www.cdc.gov/nphpsp/documents/prioritization-section-from-apexph-in-practice.pdf
[10] National Association of County & City Health Officials. First Things First: Prioritizing Health Problems. Available at http://archived.naccho.org/topics/infrastructure/accreditation/upload/Prioritization-Summaries-and-Examples.pdf
[11] Excerpted from Nancy R. Tague's The Quality Toolbox, Second Edition, ASQ Quality Press, 2004
[12] Duttweiler, M. 2007. Priority Setting Tools: Selected Background and Information and Techniques.

Intermountain identified more than 400 individuals to participate in the prioritization process for the system-wide step; a subset of the 400 completed the prioritization for American Fork Hospital. Participants included:

- American Fork Hospital
    - Administrator/Chief Executive, Financial, Medical, Nursing, and Operations Officers
    - Strategic Planner
    - Community Benefit Manager
    - Communications Director
    - Governing Board
- Intermountain Healthcare
    - Region Vice President
    - Medical Group Chief Executive, Financial, Medical, Nursing, and Operations Officers
    - SelectHealth Chief Executive, Financial, Medical, and Operations Officers
- Local Health Department Officer
- State Health Department Leaders

Participants in the prioritization process for each hospital received the following materials to support their participation:
- An executive summary of the hospital's community input meeting
- A summary of the 100 publicly reported health indicators for the hospital community
- An Area Deprivation Index (ADI) map of the hospital community

Four weeks after receiving the supporting information, participants received an invitation to complete an online survey to rate the 16 broad health issues on four dimensions (alignment, feasibility, seriousness, upstream) using a scale of low (1), medium (2), or high (3). Strategic Planning and Research staff assigned ratings for the remaining dimensions (affordability, community input, health equity, size) based on the following criteria:
- **Affordability**: reduction of costs associated with addressing the health issue being small (1), moderate (2), or large (3), provided by Intermountain's Population Health Analytics team.
- **Community input**: not mentioned by the community as an issue (1); mentioned, but not a common theme (2); common theme mentioned by several community members (3).
- **Health equity**: calculated by creating a disparity score using race as the only indictor of disparity. The highest number in the race categories was subtracted from the lowest number, divided by the lowest number, and then multiplied by 100 to get a percentage (% disparity). 1 = 0-100% disparity; 2 = 101-300% disparity; 3 = >300% disparity.
- **Size**: prevalence: 1 = 0 – 9%; 2 = 10 – 24%; 3 = ≥ 25%; incidence: 1 = 0-49 per 100k; 2 = 50-99 per 100k; 3 = 100+ per 100k. Scales reflect national metrics.

CHNA Results

Summary of key issues and ideas from community input meeting:
Key Issues
- Lack of education and motivation to adopt healthy behaviors
- Access to recreation and healthy food choices is limited by low incomes
- Need for culturally sensitive education about healthy food choices
- Lack of awareness about healthy resources for low-income and uninsured people
- Poverty and lack of insurance limit access to mental health services
- Lack of mental health providers, especially for children and adolescents
- Suicide rates among high school-aged adolescents

Chronic diseases, weight, and unhealthy behaviors
- Lack of physical activity levels across all ages which frequently leads to obesity and diabetes
- Lack of resources for people with disabilities where mobility and activity restrictions are more pronounced
- Food insecurity and challenge of healthy eating in low-income populations
- Economic impact of obesity
- Inadequate access to low-cost or free physical activity opportunities, low motivation to use them
- Lack of education on physical activity and its impact on preventing chronic disease
- Incidence of childhood obesity

Access to healthcare
- Need for education on health and insurance for young adults
- Challenge of Medicaid income gap and no eligibility for undocumented immigrant population
- Need for bilingual navigators to help underserved people become aware of programs and how to access community resources
- Need for education about the benefits of preventive services
- Poverty is a barrier to accessing care
- Transportation for people with disabilities is a barrier to access
- Cost of medication, especially for long-term conditions

Access to mental health
- Chronic health issues for mentally ill people
- Need for respite care
- Incidence of suicide among high school students
- Lack of mental health providers for children and adolescents
- Need for education for parents to learn to be engaged with their children, learn signs of suicide
- Poverty and lack of insurance for mental health services
- Lack of resiliency

Children's Health

- Poor hygiene among children and adolescents affects self-esteem and ability to concentrate
- Need for parent education to build close relationships, develop parenting skills
- Lack of physical activity among children
- Language barriers and distrust inhibit education outreach
- Challenge of how children are motivated and rewarded with food

Significant Community Health Need:

American Fork Hospital and Intermountain reviewed community input and the final calculation of priority scores based on ratings across the eight dimensions and identified the priority health need as:

Prevention of prediabetes, high blood pressure, depression, and prescription opioid misuse

Prioritized Health Indicator Data

Prevention of Prediabetes

➢Approximately one in 30 adults in the American Fork Hospital community reports a diagnosis of prediabetes. That prevalence rate is likely an underestimate, since the majority of adults affected by prediabetes are unaware of it.

Prediabetes Rate

3.2%	5.6%	5.3%	5.3%
American Fork Hospital Community	Intermountain Hospital Communities	Utah	U.S.
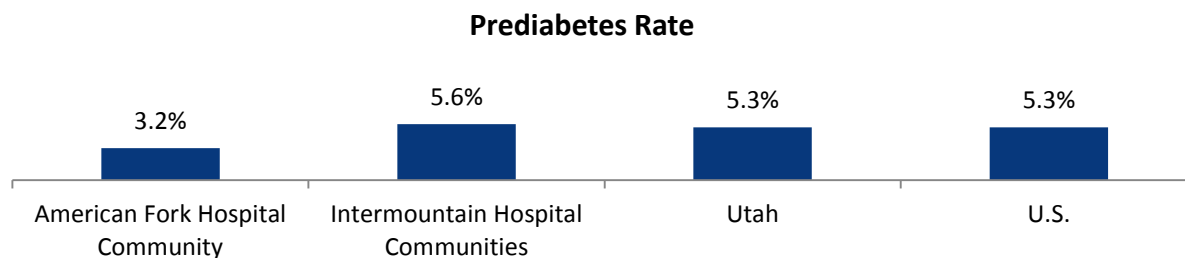
➢Prediabetes rates vary with age. Prediabetes affects adults over age 50 to a greater extent than those under 50.

Prediabetes Rate by Age

American Fork Hospital Community: NA, NA, 9.8%, 10.5%

Intermountain Hospital Communities: 3.0%, 4.9%, 9.6%, 9.3%

■ 18-34 ■ 35-49 ■ 50-64 ■ 65+
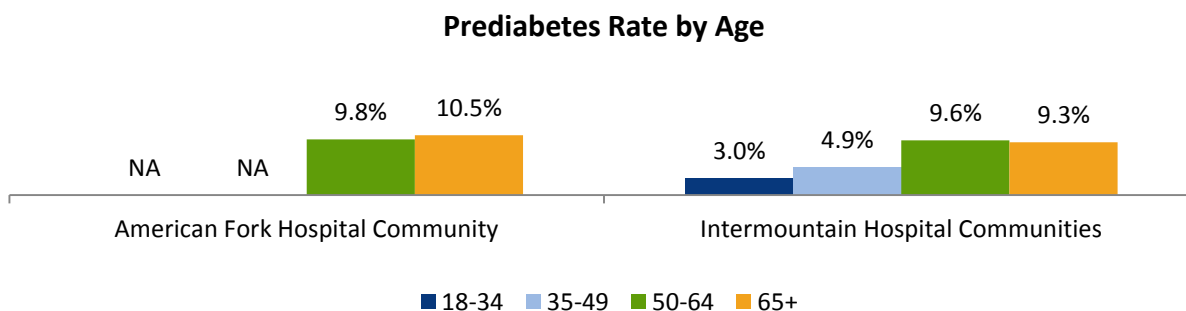
➢Prediabetes rates vary by sex. Males are more likely to be diagnosed with prediabetes than females in the American Fork Hospital community.

Prediabetes Rate by Sex

American Fork Hospital Community: 4.4%, 2.3%

Intermountain Hospital Communities: 5.1%, 6.1%

■ Male ■ Female
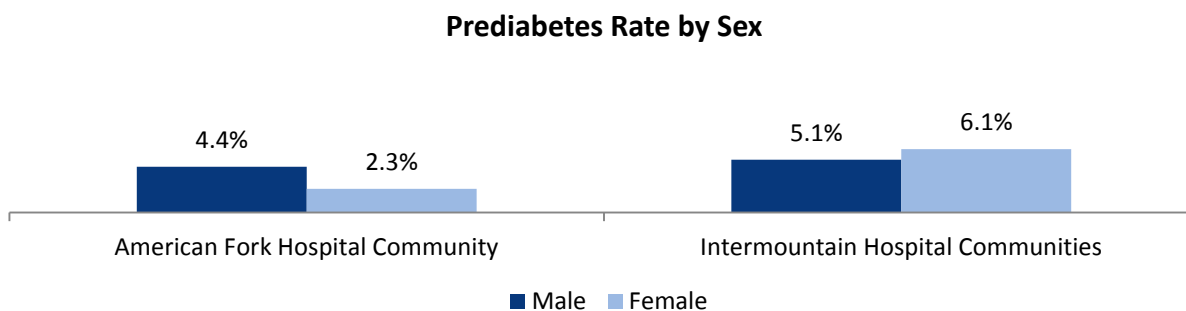
NA = Data not available due to small sample size in community

➢ **Prediabetes rates do not vary across race groups. Small sample sizes for some race groups make robust comparisons difficult. Prediabetes rates do vary across ethnicity groups. Prediabetes affects non-Hispanic groups more than Hispanic groups.**

Prediabetes Rate by Race/Ethnicity

American Fork Hospital Community							Intermountain Hospital Communities					
3.0%	NA	NA	NA	NA	3.3%	NA	5.6%	NA	5.4%	NA	NA	5.8% 4.0%

■ White ■ Black ■ Asian ■ Pacific Islander ■ American Indian/Alaska Native ■ Non-Hispanic ■ Hispanic
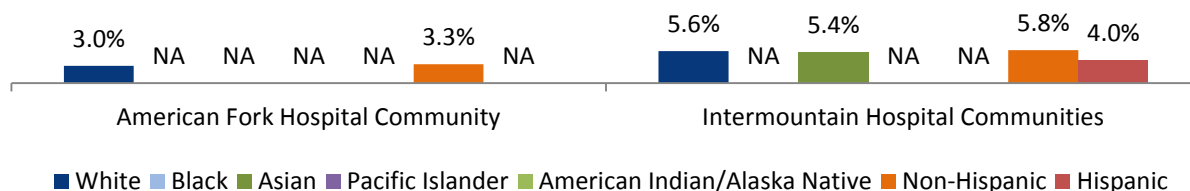
➢**Prediabetes rates vary across educational attainment. Individuals with an Associate's Degree or higher are less likely to be diagnosed with prediabetes.**

Prediabetes Rate by Education

American Fork Hospital Community				Intermountain Hospital Communities			
NA	NA	NA	4.8%	6.4%	5.2%	5.9%	5.2%

■ Less than HS ■ HS Diploma ■ Some College ■ Associate's Degree+
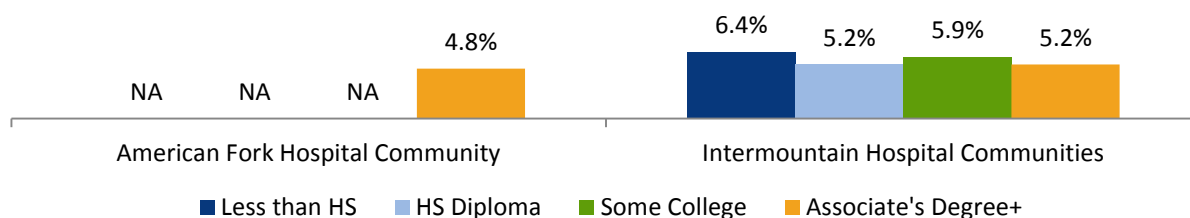
➢ **Prediabetes often leads to a diagnosis of type 2 diabetes (25 percent diagnosed in three to five years, 50 percent diagnosed in 10 years).[13] The current rate of diabetes is higher than that of prediabetes and will likely grow without focused prevention efforts.**

Diabetes Rate

American Fork Hospital Community	Intermountain Hospital Communities	Utah	U.S.
5.2%	7.0%	7.6%	9.6%
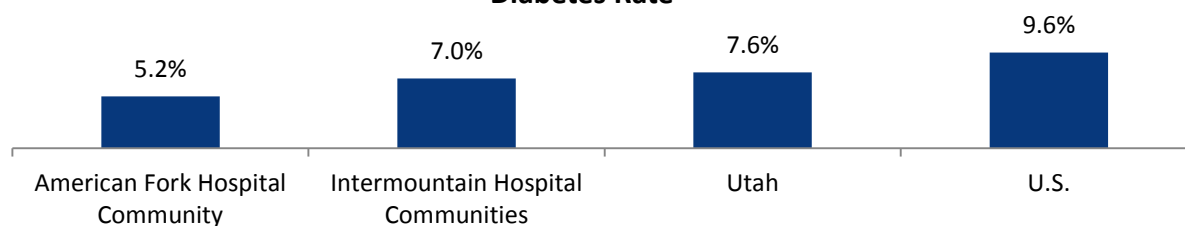
NA = Data not available due to small sample size in community

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[13] *Diseases and Conditions: Prediabetes*, Mayo Clinic, Mayo Foundation for Medical Education and Research, 2014

➢**Several health behaviors contribute to developing prediabetes, including lack of physical activity, obesity, and insufficient fruit and vegetable consumption. Rates for these factors are high and illustrate areas in which work can be done to reduce the risk of developing prediabetes.**

Contributing Factors to Prediabetes

	American Fork Hospital Community	Intermountain Hospital Communities
Lack of Physical Activity	14.9%	18.5%
Obesity	22.1%	24.4%
Insufficient Fruits	69.1%	69.0%
Insufficient Vegetables	83.0%	82.6%

■ Lack of Physical Activity ■ Obesity ■ Insufficient Fruits ■ Insufficient Vegetables

Prioritization Results: Diabetes conditions were highly prioritized relative to other health issues
The table below shows how diabetes conditions ranked among the 16 broad health issues in each of the prioritization dimensions, for both the American Fork Hospital community and for all Intermountain hospital communities. The rankings across prioritization dimensions demonstrate that diabetes conditions were highly prioritized relative to other health issues in the American Fork Hospital and Intermountain communities.
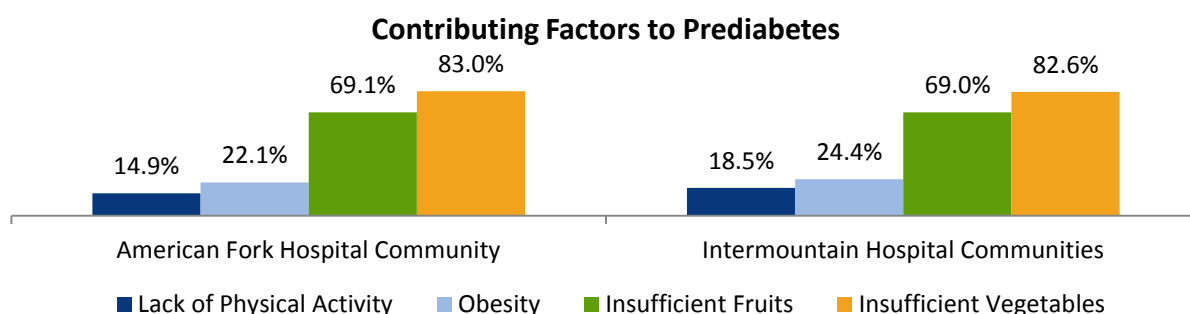
Rank of Diabetes Conditions Relative to Other Health Issues		
Prioritization Dimension	**American Fork Hospital Community**	**Intermountain Hospital Communities**
Affordability	1st *	1st *
Alignment	3rd *	3rd
Community Input	3rd *	3rd *
Feasibility	1st	4th
Health Equity	2nd *	2nd *
Seriousness	2nd *	3rd
Size	3rd *	2nd *
Upstream	1st	2nd

Indicates there was a tie in the prioritization score between diabetes conditions and other health issues on this prioritization dimension.

Likewise, the health issue of overweight and obesity that contributes to developing prediabetes was also highly prioritized
The following table shows how overweight and obesity ranked among the 16 broad health issues in each of the prioritization dimensions, for the American Fork Hospital community and for all Intermountain hospital communities. The rankings across prioritization dimensions demonstrate that overweight and obesity were highly prioritized relative to other health issues in the American Fork Hospital and Intermountain communities.

Rank of Overweight and Obesity Relative to Other Health Issues		
Prioritization Dimension	**American Fork Hospital Community**	**Intermountain Hospital Communities**
Affordability	3rd *	3rd *
Alignment	2nd *	5th
Community Input	1st *	1st *
Feasibility	7th	7th
Health Equity	2nd *	2nd *
Seriousness	3rd	4th
Size	1st *	1st *
Upstream	2nd	1st

Indicates there was a tie in the prioritization score between overweight and obesity and other health issues on this prioritization dimension.

Why We Are Focusing On Prediabetes

The number of individuals undiagnosed with prediabetes is an estimated 86 million.[14] Prediabetes is characterized as higher than usual blood sugar levels, though lower than the levels associated with type 2 diabetes.[15] If left untreated, prediabetes will progress to type 2 diabetes.[16]

Diabetes is a very costly condition, with approximately $245 billion spent annually in the U.S.; in Utah, more than a billion dollars each year are spent on direct and indirect costs associated with prediabetes and diabetes.[17] Identifying people with prediabetes can create opportunity to prevent the development of type 2 diabetes, which is the leading cause of non-traumatic lower-extremity amputation, renal failure, blindness among adults younger than 75, and one of the leading causes of heart disease.[18]

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[14] Annal of Intern Med. doi:10.7326/M15-2345
[15] *Diseases and Conditions: Prediabetes*, Mayo Clinic, Mayo Foundation for Medical Education and Research, 2014
[16] Ibid
[17] Utah Diabetes Prevention Strategic Plan, October 2015 to September 2020
[18] *Diabetes*, Public Health Indicator Based Information System (IBIS), Utah Department of Health, 2014

Prevention of High Blood Pressure

➢**Approximately one in five adults in the American Fork Hospital community reports a diagnosis of high blood pressure. That prevalence rate is likely an underestimate, since many adults affected by high blood pressure are unaware of it.**

High Blood Pressure Rate

- American Fork Hospital Community: 17.9%
- Intermountain Hospital Communities: 23.8%
- Utah: 24.2%
- U.S.: 31.4%
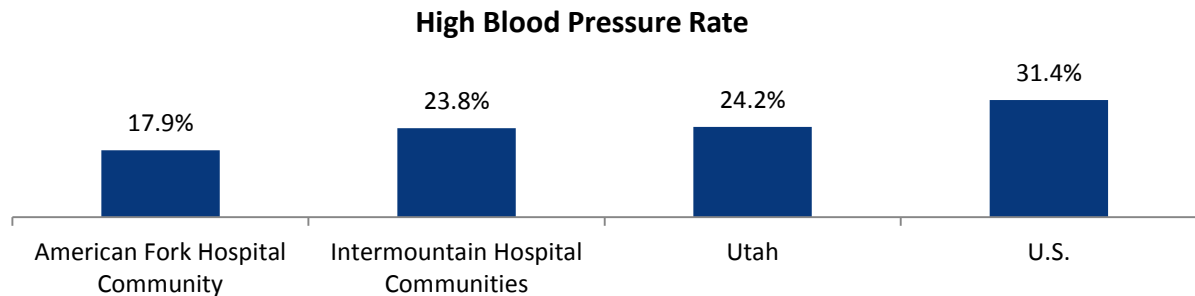
➢**High blood pressure rates vary with age. High blood pressure affects greater proportions of adults with increasing age.**

High Blood Pressure Rate by Age

American Fork Hospital Community:
- 18-34: 8.1%
- 35-49: 11.2%
- 50-64: 31.6%
- 65+: 50.2%

Intermountain Hospital Communities:
- 18-34: 8.5%
- 35-49: 17.8%
- 50-64: 35.9%
- 65+: 56.0%

■ 18-34 ■ 35-49 ■ 50-64 ■ 65+
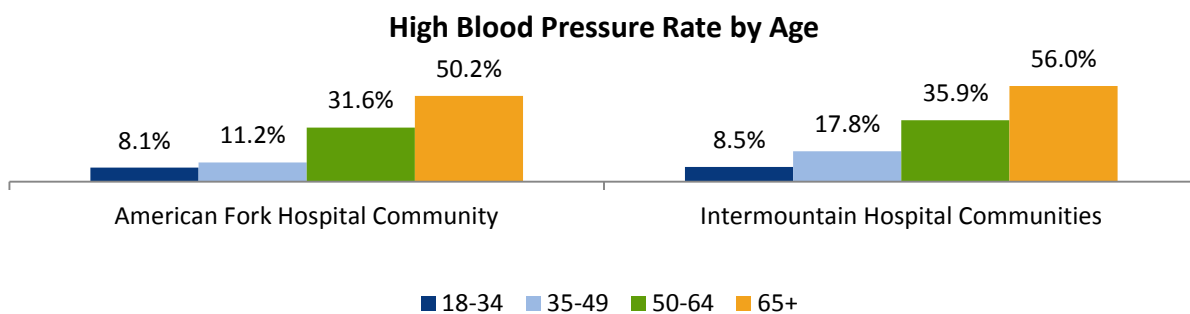
➢**High blood pressure rates vary by sex. Males are more likely to be diagnosed with high blood pressure than are females.**

High Blood Pressure Rate by Sex

American Fork Hospital Community:
- Male: 19.2%
- Female: 15.9%

Intermountain Hospital Communities:
- Male: 26.4%
- Female: 21.4%

■ Male ■ Female
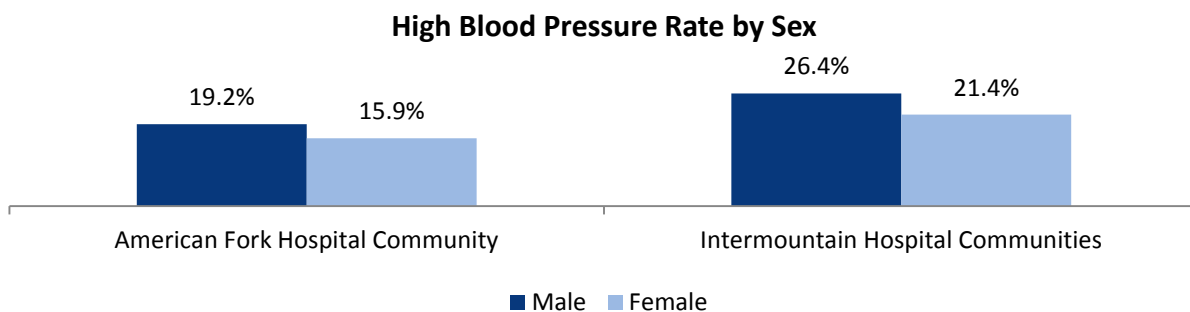
➢High blood pressure rates vary across race and ethnicity. High blood pressure rates are higher among Black populations and lower among Asian populations. Within the American Fork Hospital community, small sample sizes for some race groups make robust comparisons difficult. High blood pressure rates are higher among Hispanic than non-Hispanic groups in the American Fork Hospital community.

High Blood Pressure Rate by Race/Ethnicity
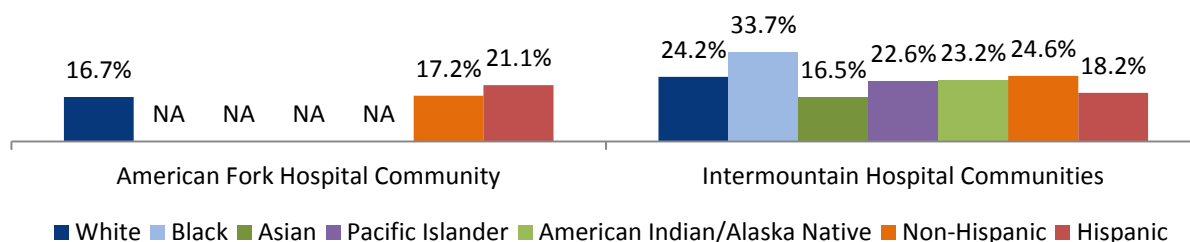
➢ High blood pressure rates vary across educational attainment levels. Higher levels of education are associated with lower rates of high blood pressure.

High Blood Pressure Rate by Education
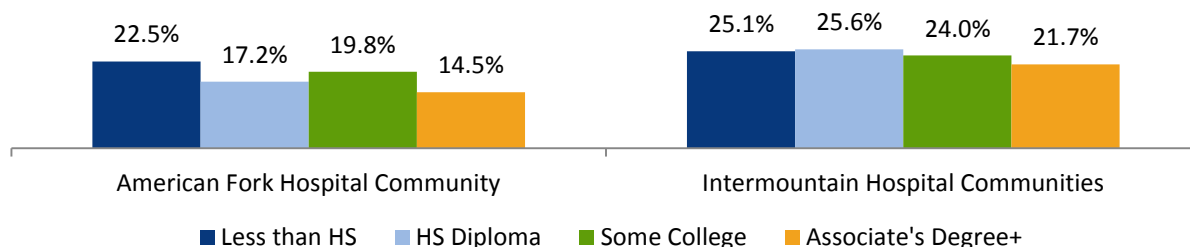
➢Uncontrolled high blood pressure can lead to a variety of cardiovascular diseases. While the current death rate for cardiovascular disease is lower for the American Fork Hospital community when compared to the state and nation, it remains a leading cause of death.

Cardiovascular Disease Death Rate
per 100k

NA = Data not available due to small sample size in community

➢**Several health behaviors contribute to developing high blood pressure, including lack of physical activity, obesity, and insufficient fruit and vegetable consumption. Rates for these factors are high and illustrate areas in which work can be done to reduce risk of developing high blood pressure.**

Contributing Factors to High Blood Pressure

	American Fork Hospital Community	Intermountain Hospital Communities
Lack of Physical Activity	14.9%	18.5%
Obesity	22.1%	24.4%
Insufficient Fruits	69.1%	69.0%
Insufficient Vegetables	83.0%	82.6%

■ Lack of Physical Activity ■ Obesity ■ Insufficient Fruits ■ Insufficient Vegetables

Prioritization Results: cardiovascular conditions were highly prioritized relative to other health issues
The table below shows how cardiovascular conditions ranked among the 16 broad health issues in each of the prioritization dimensions, for the American Fork Hospital community and for all Intermountain hospi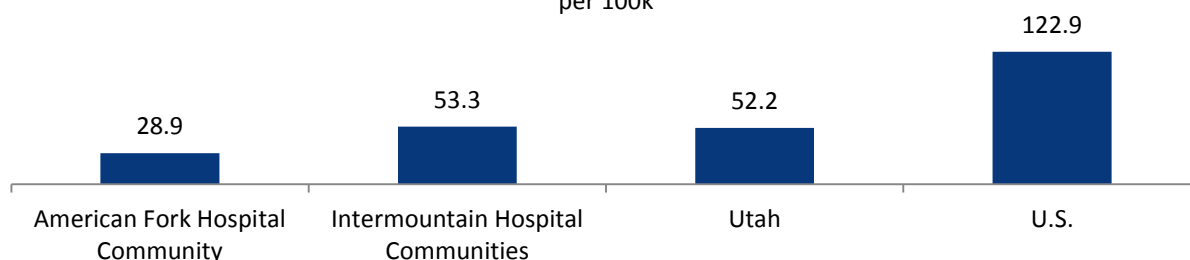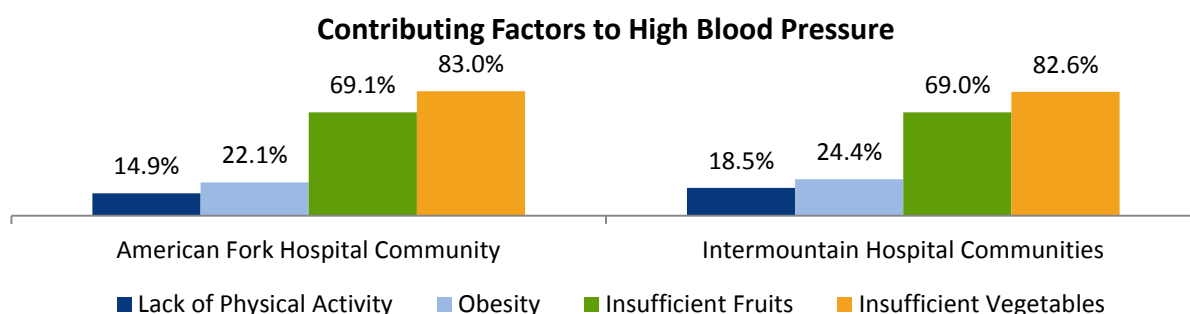tal communities. The rankings across prioritization dimensions demonstrate that cardiovascular conditions were highly prioritized relative to other health issues in the American Fork Hospital and Intermountain communities.

Rank of Cardiovascular Conditions Relative to Other Health Issues		
Prioritization Dimension	**American Fork Hospital Community**	**Intermountain Hospital Communities**
Affordability	1st *	1st *
Alignment	3rd *	4th
Community Input	3rd *	3rd *
Feasibility	2nd	5th
Health Equity	3rd *	3rd *
Seriousness	1st *	1st
Size	2nd *	1st *
Upstream	4th *	6th

Indicates there was a tie in the prioritization score between cardiovascular conditions and other health issues on this prioritization dimension.

Likewise, the health issue of overweight and obesity that contributes to developing high blood pressure was also highly prioritized
The following table below shows how overweight and obesity ranked among the 16 broad health issues in each of the prioritization dimensions, for the American Fork Hospital community and for all Intermountain hospital communities. The rankings across prioritization dimensions demonstrate that overweight and obesity were highly prioritized relative to other health issues in the American Fork Hospital and Intermountain communities.

Rank of Overweight and Obesity Relative to Other Health Issues		
Prioritization Dimension	**American Fork Hospital Community**	**Intermountain Hospital Communities**
Affordability	3rd *	3rd *
Alignment	2nd *	5th
Community Input	1st *	1st *
Feasibility	7th	7th
Health Equity	2nd *	2nd *
Seriousness	3rd	4th
Size	1st *	1st *
Upstream	2nd	1st

Indicates there was a tie in the prioritization score between overweight and obesity and other health issues on this prioritization dimension.

Why We Are Focusing on High Blood Pressure
High blood pressure can be problematic because it is unlikely to result in obvious symptoms making it difficult to detect. Around 70 million American adults have high blood pressure, which is close to one out of every three adults.[19] However, only 52 percent of these adults are successfully managing their condition.[20] High blood pressure can also cause further complications through an increased risk of heart disease and stroke, which continue to be among the highest causes of mortality in the United States.[21]

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[19] *High Blood Pressure,* Center for Disease Control and Prevention, U.S. Department of Health and Human Services, 2016

[20] *Blood Pressure: Doctor-diagnosed Hypertension*, Public Health Indicator Based Information System (IBIS), Utah Department of Health, 2014

[21] Ibid

Prevention of Depression

➢Approximately one in five adults in the American Fork Hospital community reports a diagnosis of depression. That prevalence rate is likely an underestimate, since many adults affected by depression do not seek diagnosis and treatment.

Depression Rate

American Fork Hospital Community	Intermountain Hospital Communities	Utah	U.S.
21.7%	21.8%	20.7%	18.1%
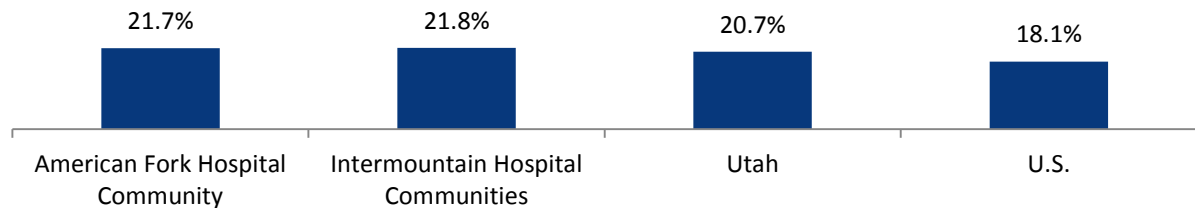
➢Depression rates vary with age. Adults under the age of 65 are more likely to be diagnosed with depression than those over 65.

Depression Rate by Age

American Fork Hospital Community				Intermountain Hospital Communities			
22.9%	20.2%	24.1%	16.9%	22.3%	21.8%	24.7%	16.4%

■ 18-34 ■ 35-49 ■ 50-64 ■ 65+
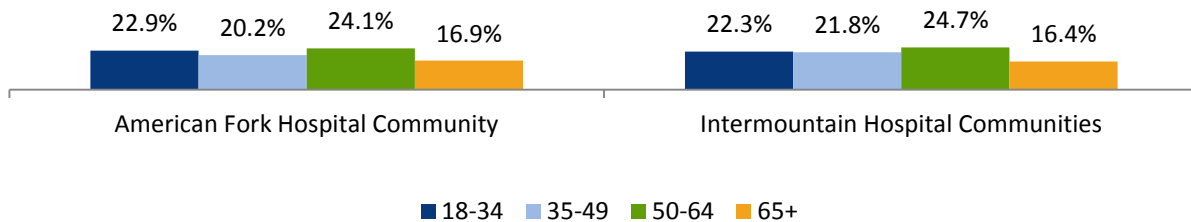
➢Depression rates vary by sex. Females are more likely to be diagnosed with depression than are males.

Depression Rate by Sex

American Fork Hospital Community		Intermountain Hospital Communities	
15.9%	26.9%	15.7%	27.9%

■ Male ■ Female
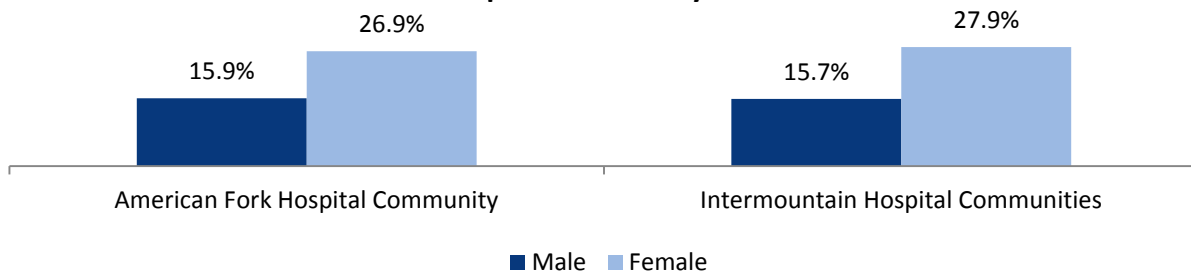
➢ **Depression rates vary by race and ethnicity. Small sample sizes for some race groups in the American Fork Hospital community make robust comparisons difficult. In the Intermountain hospital communities, depression rates are lowest among the Asian population and rates are often twice as high or more among other races. Depression rates are lower for non-Hispanic groups than for Hispanic groups in the American Fork Hospital community.**

Depression Rate by Race/Ethnicity

American Fork Hospital Community: White 21.5%, Black NA, Asian NA, Pacific Islander NA, American Indian/Alaska Native NA, Non-Hispanic 21.5%, Hispanic 25.7%

Intermountain Hospital Communities: White 22.5%, Black 18.0%, Asian 8.4%, Pacific Islander 15.2%, American Indian/Alaska Native 22.2%, Non-Hispanic 22.2%, Hispanic 19.3%

■ White ■ Black ■ Asian ■ Pacific Islander ■ American Indian/Alaska Native ■ Non-Hispanic ■ Hispanic

➢ **Depression rates vary across educational attainment. Depression rates are lowest among groups with an Associate's Degree or higher.**

Depression Rate by Education

American Fork Hospital Community: Less than HS 31.4%, HS Diploma 22.7%, Some College 24.5%, Associate's Degree+ 15.1%

Intermountain Hospital Communities: Less than HS 27.2%, HS Diploma 21.9%, Some College 23.4%, Associate's Degree+ 17.4%

■ Less than HS ■ HS Diploma ■ Some College ■ Associate's Degree+
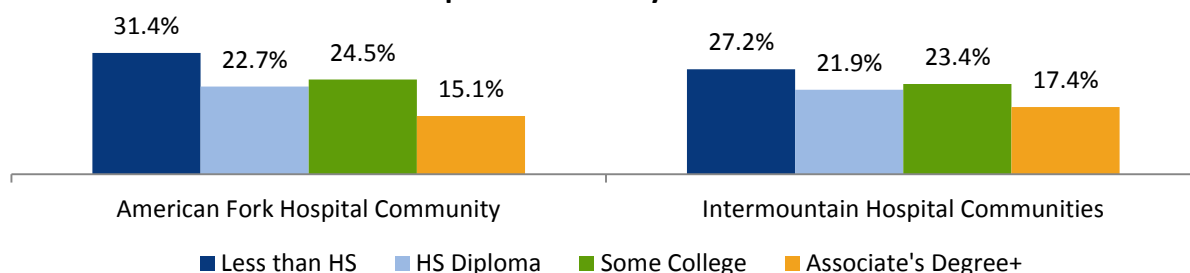
➢**Depression can lead to suicide attempts for some individuals. The suicide death rate in the American Fork Hospital community is lower than the state rate, but remains above the national rate.**

Suicide Death Rate
per 100k

American Fork Hospital Community 13.6, Intermountain Hospital Communities 18.7, Utah 20.5, U.S. 13.0
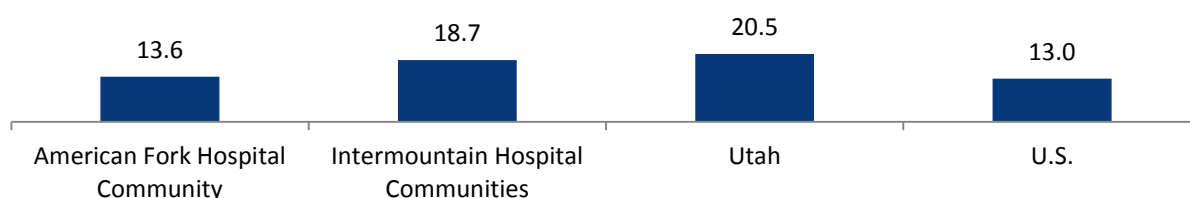
NA = Data not available due to small sample size in community

➢**Poor mental health is a complicating factor linked to depression and the high school attempted suicide rate for the Intermountain hospital communities highlights that early prevention of depression is needed.**

Complicating Factors to Depression

15.6%   NA   16.2%   7.2%

American Fork Hospital Community   Intermountain Hospital Communities

■ 7+ days of poor mental health in past 30   ■ Grade 9-12 Attempted Suicide

NA = Data not available due to small sample size in community

Prioritization Results: mental health conditions were highly prioritized relative to other health issues
The table below shows how mental health conditions ranked among the 16 broad health issues in each of the prioritization dimensions, for the American Fork Hospital community and for all Intermountain hospital communities. The rankings across prioritization dimensions demonstrate that mental health conditions were highly prioritized relative to other health issues in the American Fork Hospital and Intermountain communities.

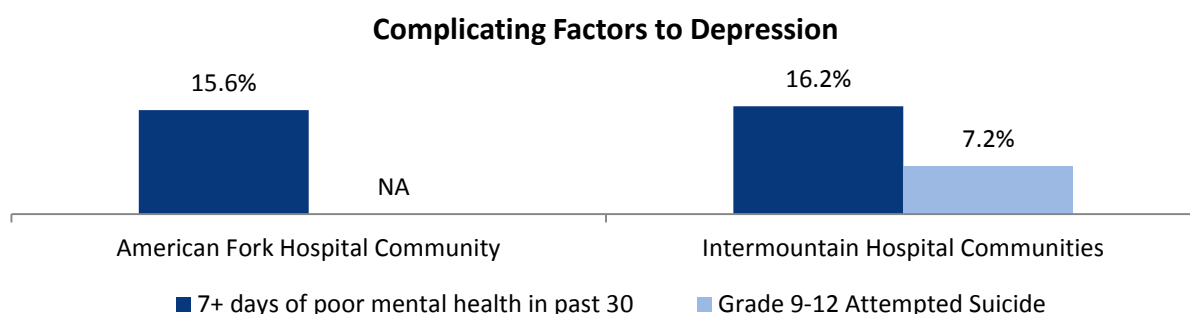| Rank of Mental Health Conditions Relative to Other Health Issues		
Prioritization Dimension	**American Fork Hospital Community**	**Intermountain Hospital Communities**
Affordability	1st *	1st *
Alignment	4th *	9th
Community Input	1st *	1st *
Feasibility	10th	8th
Health Equity	3rd *	3rd *
Seriousness	4th	5th
Size	2nd *	2nd *
Upstream	5th	3rd

*Indicates there was a tie in the prioritization score between mental health conditions and other health issues on this prioritization dimension.

Why We Are Focusing on Depression
Mental health is an integral part of an individual's well-being. Depression is a mood disorder that adversely affects one's mental health through changes in how an individual thinks, feels, and behaves.[22] It is the most common of mental disorders in adults. Symptoms revolve around emotions of persistent sadness, worthlessness, and thoughts of death or suicide, among many others.[23] Approximately 18

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[22] National Institute of Mental Health, National Institutes of Health (NIH), U.S. Department of Health and Human Services, 2016
[23] *Depression,* Public Health Indicator Based Information System (IBIS), Utah Department of Health, 2014

percent of adults in the U.S. are affected by depression; Utah is slightly higher with more than 20 percent.[24] Depression is also more common in people with other health conditions, such as diabetes and heart disease, and can worsen outcomes in people with those conditions as well as contribute to a poorer overall quality of life.[25]

Depression is a serious concern for children and adolescents as well, with 25.7 percent of adolescents reporting feeling sad or hopeless.[26] In 2014, suicide was the leading cause of death for Utahns ages 10 to 17.[27]

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[24] *Depression*, Public Health Indicator Based Information System (IBIS), Utah Department of Health, 2014
[25] National Institute of Mental Health, National Institutes of Health (NIH), U.S. Department of Health and Human Services, 2016
[26] *Suicide*, Public Health Indicator Based Information System (IBIS), Utah Department of Health, 2014
[27] Ibid

Prevention of Prescription Opioid Misuse

➢The drug poisoning death rate for the American Fork Hospital community is less than the state and national rate. The majority of drug poisoning deaths are attributed to prescription opioids.

Drug Poisoning Death Rate

per 100k

American Fork Hospital Community	Intermountain Hospital Communities	Utah	U.S.
13.6	19.4	22.4	14.7
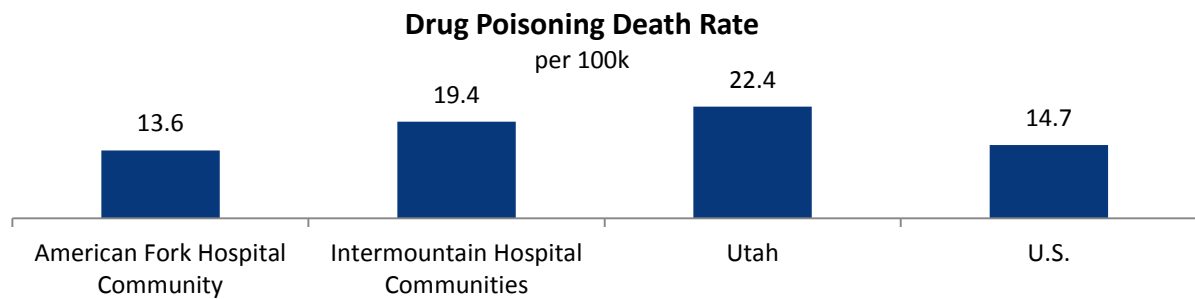
➢ Drug poisoning deaths vary by age. Drug poisoning deaths tend to be more common among middle-aged adults than among younger or older adults.

Drug Poisoning Death Rate by Age

per 100k

American Fork Hospital Community: 18.1, 31.1, NA, NA

Intermountain Hospital Communities: 23.9, 38.9, 36.1, 7.0

■ 18-34 ■ 35-49 ■ 50-64 ■ 65+
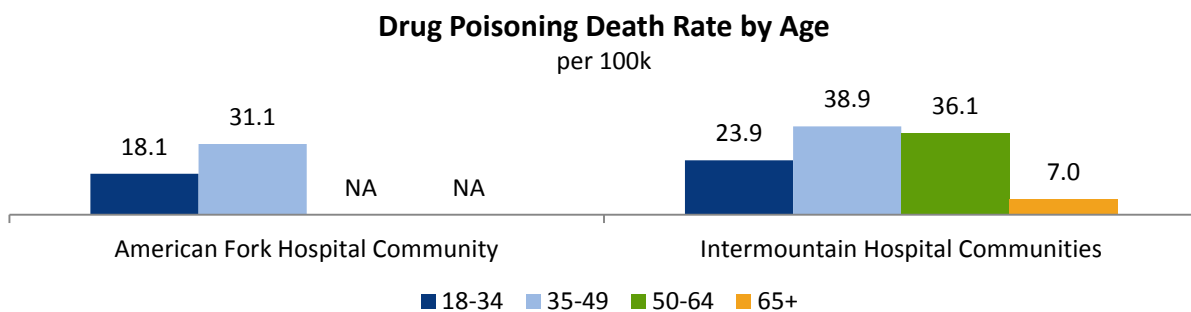
➢ Drug poisoning deaths vary by sex. Drug poisoning deaths tend to be higher among males than among females.

Drug Poisoning Death Rate by Sex

per 100k

American Fork Hospital Community: 14.3, 12.8

Intermountain Hospital Communities: 22.2, 16.7

■ Male ■ Female
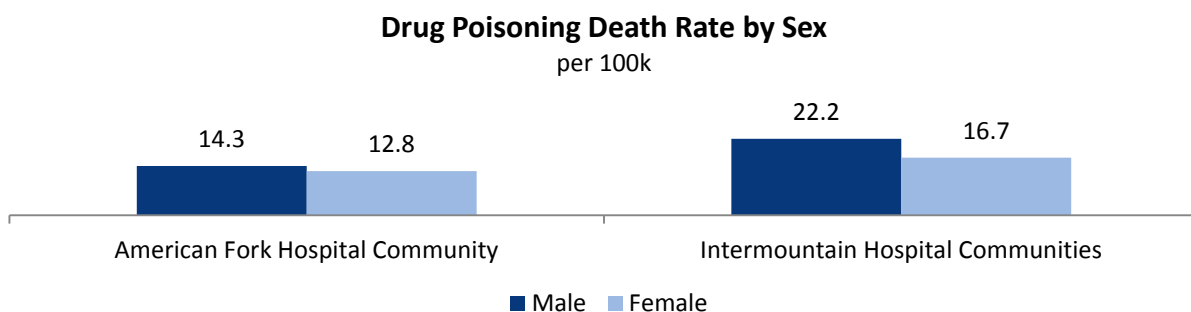
NA = Data not available due to small sample size in community

➢ **Drug poisoning deaths vary by race and ethnicity. Small sample sizes for some race and ethnicity groups make robust comparisons difficult. The death rate for whites is higher than other race groups. The rate for non-Hispanic populations is higher than for Hispanic populations.**

Drug Poisoning Death Rate by Race/Ethnicity

per 100k

■ White ■ Black ■ Asian ■ Pacific Islander ■ American Indian/Alaska Native ■ Non-Hispanic ■ Hispanic
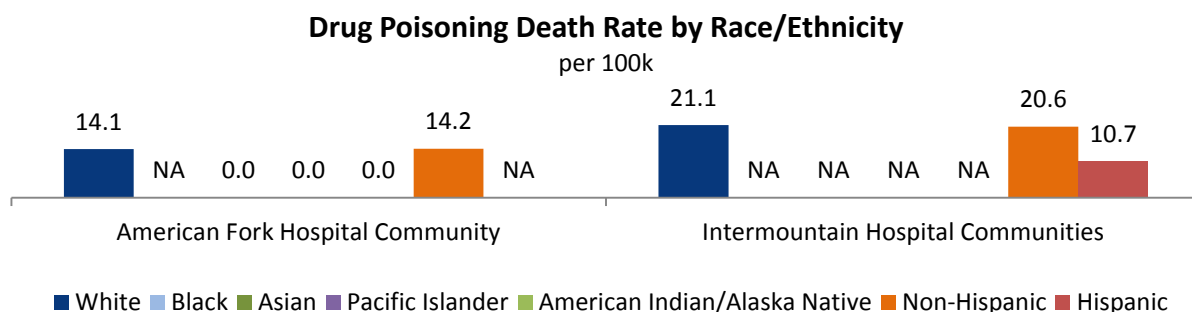
➢The drug poisoning death rate is complicated by the co-occurrence of other substance abuse and mental illness. About one in three adults in Utah has received an opioid prescription.[28]

Complicating Factors to Drug Poisoning Death Rate

■ Also other substance abuse ■ Also mental illness ■ Adults prescribed opioids
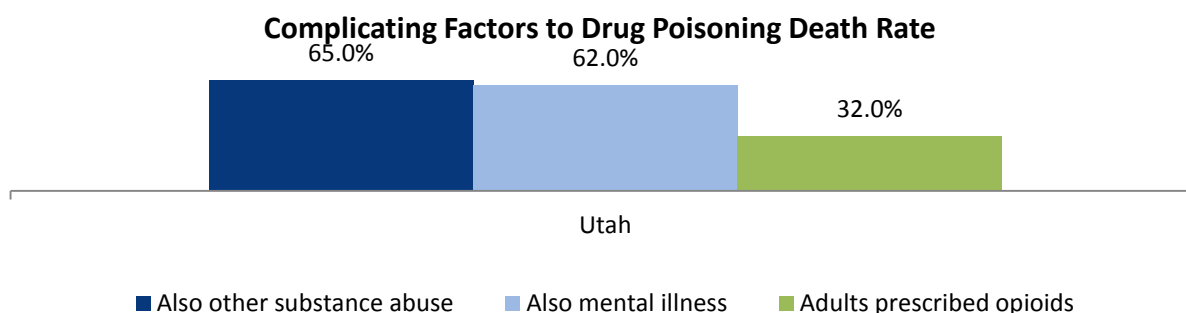
NA = Data not available due to small sample size in community

Prioritization Results: addictive behaviors were highly prioritized relative to other health issues
The following table shows how addictive behaviors ranked among the 16 broad health issues in each of the prioritization dimensions, for the American Fork Hospital community and for all Intermountain hospital communities. The rankings across prioritization dimensions demonstrate that addictive behaviors were highly prioritized relative to other health issues in both the American Fork Hospital community and Intermountain.

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[28] Utah Violence and Injury Prevention Program, 2014; www.health.utah.gov/vipp/topics/prescrition-drug-overdose

Rank of Addictive Behaviors Relative to Other Health Issues		
Prioritization Dimension	American Fork Hospital Hospital Community	Intermountain Hospital Communities
Affordability	2nd *	2nd *
Alignment	5th *	13th
Community Input	3rd *	1st *
Feasibility	9th *	14th
Health Equity	3rd *	3rd *
Seriousness	2nd *	6th
Size	3rd *	2nd *
Upstream	3rd	4th

Indicates there was a tie in the prioritization score between addictive behaviors and other health issues on this prioritization dimension.

Why We Are Focusing on Prescription Opioid Misuse

Substance abuse is a disorder in which drugs or alcohol are used in excess to the point that it becomes disruptive to a person's daily life. 20.2 million Americans were suffering from a substance abuse disorder in 2014,[29] which includes prescription opioid abuse. Though prescription opioid abuse is increasingly a concern across the U.S., Utah is especially at risk for its consequences as the death rate here exceeds the national rate. In Utah, there are more deaths from unintended prescription opioid overdose than firearms, falls, or motor vehicle crashes.[30] Each month there is an average of 24 deaths from prescription opioid abuse in Utah.[31]

Individuals who have a history of prescription opioid misuse are 19 times more likely to use heroin during their lifetime.[32] Identification of people at risk for substance abuse as well as providing treatment are key to improving the rising prescription opioid misuse problem.

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[29] National Institute of Mental Health, National Institutes of Health (NIH), U.S. Department of Health and Human Services, 2016
[30] Violence and Injury Prevention Program, Utah Department of Health, 2014
[31] Ibid
[32] National Institute on Drug Abuse, National Institutes of Health (NIH), U.S. Department of Health and Human Services, 2015

Strategies to Address the Health Need

Based on the results of the CHNA, American Fork Hospital staff identified community partners to address the health need over the next several years through screening, education, and treatment. The planning committee engaged representatives of state and local health departments and multiple community partners to identify potential implementation strategies. These strategies will be evaluated and health improvement impact will be measured over the next several years.

Potential collaborative partners for the Implementation Strategies
Multiple community agencies have been identified as potential collaborative partners to work with American Fork Hospital on the community health improvement activities include but are not limited to:
- Community Health Connect (a referral/case management program for uninsured, low-income Utah County residents)
- Mountainlands Community Health Centers (two in Utah County)
- National Alliance on Mental Illness
- United Way of Utah County
- Utah County Health Department
- Utah Department of Health
- Volunteer Care Clinic

Impact Evaluation of Previous Implementation Strategy

2015 Community Benefit Implementation Plan Impact Summary

Identified Need:
Improve the prevention, detection, treatment and/or management of chronic diseases associated with weight and unhealthy behaviors.

Intervention:
Improve the quality of life and for low income and uninsured people with chronic disease living in the community by implementing:
1. The Intermountain 100 Day Heart Challenge health improvement program
2. In partnership with the Utah Department of Health, one "Living Well with Chronic Conditions" (LWCC) chronic disease self-management workshop with identified/select populations

Results/Outcomes for 2015 Activities:
Measurement:
1. Participants **in the 100 Day Heart Challenge** will show measured improvements with cholesterol, glucose, blood pressure, body fat, waist circumference, and weight loss. 100 percent of participants will see an improvement in one of the biometric measurements and 80 percent will see an improvement in two biometric measurements.
2. Participants in the Living Well with Chronic Condition (LWCC) program will complete a pre- and post-evaluation with a goal of 25 percent reporting lifestyle management improvements.

Outcomes:
1. 100 percent of 100 Day Heart Challenge participants achieved improvement in a minimum of two biometric measurements.
2. Participants in the LWCC program held 9/3/15 to 10/8/15 completed a pre and post evaluation with self-reported lifestyle management improvements that exceeded the 25 percent goal.

Conclusion

American Fork Hospital staff is grateful for the support of community members and agencies for their participation in the process of understanding local community health needs and developing strategies to improve health. American Fork Hospital will conduct its next CHNA in 2019 and looks forward to continuing collaborations to improve the health of our community.

The American Fork Hospital CHNA was completed by Intermountain Community Benefit and Strategic Planning and Research Departments.

> Send written comments on this Community Health Needs Assessment to:
>
> 2016chnacomments@imail.org

Acknowledgement

This assessment would not be possible without the Utah Department of Health Office of Public Health Assessment. Their talented team of data specialists helped Intermountain identify reliable public health measures that best illustrate the health of a community. Their dedication to the quality of the data and its dissemination helped make this assessment a true community collaboration.

Contributors from the Utah Department of Health Office of Public Health Assessment included Rachel Eddington, Navina Forsythe, Kathy Marti, Kim Neerings, Brian Paoli, Wu Xu, and Tong Zheng. Other local and Utah Department of Health department contributors included Laurie Baksh, Mike Friedrichs, Nicole Stone, Sasha Zaharoff (Department of Environmental Quality), Danny Bennion and Cindy Morgan (Salt Lake County Health Department), Jacob Matthews (Weber-Morgan Health Department), Isa Perry (Davis County Health Department), Christopher Smoot (Wasatch County Health Department), and Jim Vanderslice (University of Utah).

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Appendix A

Health Indicator	American Fork Hospital Community	Communities Served by Intermountain Hospitals	Utah	U.S.
Addictive Behaviors				
Binge drinking - at risk (5+ drinks for men, 4+ drinks for women, 1 or more times)	7.3%	11.9%	11.4%	16.0%
Binge drinking MINOR	NA	8.9%	8.9%	20.8%
Chronic/heavy drinking - at risk (>30 for women, >60 for men)	2.7%	4.1%	3.9%	5.8%
Cigarette smoking [HP2020 TU-1] - current smoker	5.8%	11.0%	9.7%	18.1%
Cigarette smoking MINOR	NA	8.0%	8.0%	15.7%
Drug poisoning (X40-X44, X60-X64,X85,Y10-Y14) crude death rate per 100,000, including prescription opioid overdose	13.6	19.4	22.4	14.7
E-cigarette user	NA	3.6%	NA	NA
Smokeless tobacco MINOR	NA	2.6%	2.6%	8.8%
Smokeless tobacco user	2.4%	2.9%	3.0%	4.2%
Cancer				
All cancers (C00-C97) crude rates, deaths per 100,000 population	62.3	99.6	98.2	186.2
Primary cases of breast cancer diagnosis rates per 100,000 population	59.2	81.0	114.6	138.6
Primary cases of colon cancer diagnosis rates per 100,000 population	11.4	13.5	31.6	46.4
Primary cases of lung cancer diagnosis rates per 100,000 population	7.4	16.9	27.3	69.4
Primary cases of skin cancer diagnosis rates per 100,000 population	13.1	21.6	32.2	20.8
Cardiovascular Conditions				
Cardiovascular disease (I20-I25) crude rates, deaths per 100,000 population	28.9	53.3	52.2	122.9
Cerebrovascular diseases (I60-I69) crude rates, deaths per 100,000 population	20.9	28.0	37.9	36.5
Heart failure (I-50) crude rates, deaths per 100,000 population	16.7	22.8	26.1	92.3
High Blood pressure awareness [HP2020 HDS-5.1] - told blood pressure is high	17.9%	23.8%	24.2%	31.4%
High cholesterol awareness [HP2020 HDS-7] - told cholesterol is high	20.7%	23.6%	25.5%	39.1%

Health Indicator	American Fork Hospital Community	Communities Served by Intermountain Hospitals	Utah	U.S.
Care Access				
No health insurance [HP2020 AHS-1]	14.4%	17.5%	16.1%	15.2%
Non-emergent Emergency Department use rate per 100	2.7	4.1	4.3	NA
Personal doctor or healthcare provider [HP2020 AHS-3] - one or more personal doctor	76.3%	73.1%	73.3%	75.9%
Routine dental healthcare - within past 12 months	74.4%	68.7%	68.9%	65.3%
Unable to get needed care due to cost	15.4%	15.7%	14.2%	14.9%
Diabetes Conditions				
Doctor diagnosed diabetes	5.2%	7.0%	7.6%	9.6%
Ever told you have prediabetes	3.2%	5.6%	5.3%	5.3%
General Health Status - fair or poor	10.1%	12.8%	12.1%	16.8%
Maternal and Child Health				
Adolescent births rate per 1,000, girls Age 10-17	1.4	3.8	1.8	NA
Alcohol use during last 3 months of pregnancy	NA	9.6%	8.7%	NA
Births from unintended pregnancy	25.7%	32.6%	32.1%	37.0%
Breastfeeding ever	93.7%	93.2%	93.3%	79.2%
Duration between pregnancies less than 13 months	10.1%	9.8%	10.2%	NA
Excess gestational weight gain during pregnancy	51.9%	49.8%	50.8%	NA
Gestational diabetes	3.4%	4.1%	4.4%	5.3%
Infant mortality rate per 1000 births	4.3	5.0	5.2	6.0
Low birth weight infants (less than 2500 grams)	6.1%	6.9%	6.9%	8.0%
Multivitamin taken before pregnancy	60.5%	55.0%	44.7%	NA
No prenatal care until 3rd trimester	2.2%	3.2%	2.7%	NA
Obese BMI 30+ prior to pregnancy	13.6%	18.0%	18.5%	23.4%
Pre-term births (less than 37 weeks)	8.8%	9.2%	9.2%	11.3%
Tobacco use during last 3 months of pregnancy	NA	4.3%	4.0%	NA
Mental Health				
Attempted suicide MINOR	NA	7.2%	7.2%	8.0%
Doctor ever told had depressive disorder	21.7%	21.8%	20.7%	18.1%
Mental health past 30 days - 7 or more days not good	15.6%	16.2%	15.9%	16.5%
Suicide (X60-X84,Y87.0,U03) crude death rate per 100,000	13.6	18.7	20.5	13.0

Health Indicator	American Fork Hospital Community	Communities Served by Intermountain Hospitals	Utah	U.S.
Other Chronic Conditions				
Alzheimer's disease (G-30) crude rates, deaths per 100,000 population	8.5	14.1	19.5	26.8
Doctor diagnosed arthritis	16.4%	19.9%	20.1%	26.0%
Other Infectious Diseases				
Campylobacteriosis cases per 100,000 population (rate)	15.5	16.9	18.9	14.0
Chlamydia cases per 100,000 population (rate)	115.8	266.1	279.4	456.1
Cryptosporidiosis cases per 100,000 population (rate)	5.3	4.0	2.3	1.0
Giardiasis cases per 100,000 population (rate)	8.5	8.3	7.5	6.4
Gonorrhea cases per 100,000 population (rate)	8.0	32.9	49.0	110.7
Hepatitis C, acute cases per 100,000 population (rate)	NA	0.6	0.4	0.7
Hepatitis C, chronic cases per 100,000 population (rate)	15.8	30.6	47.7	NA
HIV cases - No reported cases since 2010	0.0	0.0	0.0	NA
Rabies, animal cases per 100,000 population (rate)	0.0	0.2	0.1	NA
Salmonellosis cases per 100,000 population (rate)	9.6	10.3	12.6	NA
Shiga toxin-producing Escherichia coli (STEC) infection cases per 100,000 population (rate)	6.7	3.1	3.1	NA
Syphilis cases per 100,000 population (rate)	2.7	7.4	8.4	11.6
Tuberculosis, active cases per 100,000 population (rate)	NA	1.1	1.1	2.96
West Nile virus cases per 100,000 population (rate)	0.0	0.1	0.1	NA
Overweight and Obesity				
Daily Fruit Consumption [HP2020 NWS-14] - less than 2	69.1%	69.0%	66.2%	NA
Daily vegetable consumption [HP2020 NWS-15.1] - less than 3	83.0%	82.6%	82.6%	NA
Obese ADULT [HP2020 NWS-9] - BMI 30+	22.1%	24.4%	25.7%	29.5%
Obese MINOR	NA	7.2%	7.2%	13.7%
Overweight ADULT [HP2020 NWS-9] - BMI 25 to 30	32.7%	34.4%	33.8%	NA
Overweight MINOR	NA	11.3%	11.3%	NA
Physical inactivity [HP2020 PA-1] - no leisure time activity	14.9%	18.5%	20.6%	25.3%
Physical inactivity MINOR	NA	9.6%	9.6%	14.3%

Health Indicator	American Fork Hospital Community	Communities Served by Intermountain Hospitals	Utah	U.S.
Preventive Services				
Childhood vaccinations	NA	74.6%	70.8%	71.6%
Cholesterol screening [HP2020 HDS-6] - within past 5 years	62.9%	67.6%	68.3%	76.4%
HIV test - ever tested	19.3%	24.6%	21.6%	NA
Influenza Vaccination within past 12 months	31.0%	36.9%	38.0%	40.4%
Mammography [HP2020 C-17] - in past 2 years	60.6%	68.0%	73.2%	78.1%
Pneumococcal vaccination - ever received	75.3%	70.5%	69.3%	NA
Colon cancer screening [HP2020 C-16] - testing completed	74.5%	72.3%	74.2%	68.8%
Sun safety [HP2020 C-20] - practice one or more sun safety measure	64.9%	65.0%	65.8%	NA
Respiratory Conditions				
Emergency Department visit for uncontrolled asthma (ICD-9 493) rate per 10,000	13.2	23.0	28.5	NA
Ever told you have chronic obstructive pulmonary disease (COPD)	2.3%	3.9%	3.6%	6.5%
Social Determinants of Health				
Education - BA and higher	39.8%	30.3%	30.3%	34.0%
Female headed household	4.7%	5.6%	5.6%	NA
Median household income (weighted)	$71,591	$58,387	$59,715	$53,482
Persons living in poverty	7.4%	12.7%	12.8%	15.9%
Vaccine Preventable Diseases				
Varicella (chickenpox) cases per 100,000 population (rate)	9.6	8.3	7.1	NA
Diphtheria cases - no reported cases since 2010	0.0	0.0	0.0	NA
Hepatitis A cases per 100,000 population (rate)	NA	0.3	0.4	NA
Hepatitis B, acute cases per 100,000 population (rate)	NA	0.3	0.2	1.0
Hepatitis B, chronic cases per 100,000 population (rate)	4.9	8.3	9.0	NA
Influenza-associated hospitalization cases per 100,000 population (rate)	22.6	33.0	42.3	NA
Pertussis cases per 100,000 population (rate)	62.9	42.0	45.1	10.4
Tetanus cases - no reported cases since 2010	0.0	0.0	0.0	NA

Health Indicator	American Fork Hospital Community	Communities Served by Intermountain Hospitals	Utah	U.S.
Violence & Injury Prevention				
Accidental discharge of firearms MINOR (W32-W34) crude rates, deaths per 100,000 population	0.0	NA	NA	NA
Accidental drowning and submersion ADULT (W65-W74) crude rates, deaths per 100,000 population	0.0	0.9	NA	NA
Accidental drowning and submersion MINOR (W65-W74) crude rates, deaths per 100,000 population	NA	1.1	NA	NA
Accidental exposure to smoke, fire and flames MINOR (X00-X09) crude rates, deaths per 100,000 population	0.0	NA	NA	NA
Accidental poisoning and exposure to noxious substances ADULT (X40-X49) crude rates, deaths per 100,000 population	12.4	18.5	21.2	12.3
Accidental poisoning and exposure to noxious substances MINOR (X40-X49) crude rates, deaths per 100,000 population	NA	NA	0.2	NA
Helmet use MINORS	NA	23.7%	23.7%	NA
Motor vehicle crash ADULT (V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2) crude rates, deaths per 100,000 population	5.5	10.0	8.7	10.2
Motor vehicle crash MINOR (V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2) crude rates, deaths per 100,000 population	NA	3.6	3.0	NA
Seat belt use [HP2020 IVP-15] - always or nearly always	93.4%	92.8%	93.0%	NA
Unintentional injuries ADULT (V01-X59, Y85-Y86) crude rates, deaths per 100,000 population	29.0	50.5	42.3	41.3
Unintentional injuries MINORS (V01-X59, Y85-Y86) crude rates, deaths per 100,000 population	6.8	7.4	5.2	NA

NA = Data not publicly reported or unavailable due to small sample size in the community.

Data sources: State of Utah Behavioral Risk Factor Surveillance System (BRFSS), 2011, 2012, and 2013; State of Utah Youth Risk Behavior Survey (YRBS), 2011, 2012, and 2013; Utah Department of Health Bureau of Epidemiology, 2013; Utah Cancer Registry, 2010, 2011, and 2012; Utah Emergency Department Encounter Database, 2011, 2012, and 2013; Utah Environmental Public Health Tracking, (EPHT) 2013; Utah Vital Statistics, 2011, 2012, and 2013; State of Utah Pregnancy Risk Assessment Monitoring Survey, 2011, 2012, and 2013; National Immunization Survey, 2010; U.S. BRFSS, 2013; Centers for Disease Control, 2011, 2012, and 2013.

Appendix B

Intermountain Healthcare Hospitals w/ link to CHNA and Implementation Plans

Alta View Hospital in Sandy, Utah
https://intermountainhealthcare.org/locations/alta-view-hospital/hospital-information/alta-view-hospital-chna/
American Fork Hospital in American Fork, Utah
https://intermountainhealthcare.org/locations/american-fork-hospital/hospital-information/american-fork-hospital-chna/
Bear River Valley Hospital in Tremonton, Utah
https://intermountainhealthcare.org/locations/bear-river-valley-hospital/hospital-information/bear-river-valley-hospital-chna/
Cassia Regional Hospital in Burley, Idaho
https://intermountainhealthcare.org/locations/cassia-regional-hospital/hospital-information/cassia-regional-hospital-chna-report/
Cedar City Hospital in Cedar City, Utah
https://intermountainhealthcare.org/locations/cedar-city-hospital/hospital-information/cedar-city-chna-report/
Delta Community Hospital in Delta, Utah
https://intermountainhealthcare.org/locations/delta-community-hospital/hospital-information/delta-community-hospital-chna-report/
Dixie Regional Medical Center in St. George, Utah
https://intermountainhealthcare.org/locations/dixie-regional-medical-center/hospital-information/dixie-regional-chna-report/
Fillmore Community Hospital in Fillmore, Utah
https://intermountainhealthcare.org/locations/fillmore-community-hospital/hospital-information/fillmore-community-hospital-chna-report/
Garfield Memorial Hospital in Panguitch, Utah
https://intermountainhealthcare.org/locations/garfield-memorial-hospital/hospital-information/garfield-memorial-hospital-chna-report/
Heber Valley Hospital in Heber City, Utah
https://intermountainhealthcare.org/locations/heber-valley-hospital/hospital-information/heber-valley-hospital-chna-report/
Intermountain Medical Center in Salt Lake City, Utah
https://intermountainhealthcare.org/locations/intermountain-medical-center/hospital-information/intermountain-medical-center-chna-report/
LDS Hospital in Salt Lake City, Utah
https://intermountainhealthcare.org/locations/lds-hospital/hospital-information/lds-hospital-chna-report/
Logan Regional Hospital in Logan, Utah
https://intermountainhealthcare.org/locations/logan-regional-hospital/hospital-information/logan-regional-hospital-chna-report/
McKay-Dee Hospital in Ogden, Utah
https://intermountainhealthcare.org/locations/mckay-dee-hospital/hospital-information/mckay-dee-hospital-chna-report/

Orem Community Hospital in Orem, Utah

https://intermountainhealthcare.org/locations/orem-community-hospital/hospital-information/orem-community-hospital-chna-report/

Park City Hospital in Park City, Utah

https://intermountainhealthcare.org/locations/park-city-hospital/hospital-information/park-city-medical-center-chna-report/

Primary Children's Hospital in Salt Lake City, Utah

https://intermountainhealthcare.org/locations/primary-childrens-hospital/hospital-information/primary-childrens-hospital-chna-report/

Riverton Hospital in Riverton, Utah

https://intermountainhealthcare.org/locations/riverton-hospital/hospital-information/riverton-hospital-chna-report/

Sanpete Valley Hospital in Mount Pleasant, Utah

https://intermountainhealthcare.org/locations/sanpete-valley-hospital/hospital-information/sanpete-valley-hospital-chna-report/

Sevier Valley Hospital in Richfield, Utah

https://intermountainhealthcare.org/locations/sevier-valley-hospital/hospital-information/sevier-valley-hospital-chna-report/

TOSH-The Orthopedic Specialty Hospital in Murray, Utah

https://intermountainhealthcare.org/locations/the-orthopedic-specialty-hospital/hospital-information/tosh-chna-report/

Utah Valley Hospital in Provo, Utah

https://intermountainhealthcare.org/locations/utah-valley-hospital/hospital-information/utah-valley-chna-report/

INTERMOUNTAIN HEALTHCARE HOSPITALS

BURLEY, ID

Cassia Regional Hospital

LOGAN

Logan Regional Hospital

Bear River Valley Hospital

OGDEN

McKay-Dee Hospital

LDS Hospital

Primary Children's Hospital

SALT LAKE CITY

Intermountain Medical Center

The Orthopedic Specialty Hospital (TOSH)

Riverton Hospital

Alta View Hospital

Park City Hospital

Heber Valley Hospital

American Fork Hospital

Utah Valley Hospital

Orem Community Hospital

PROVO

Sanpete Valley Hospital

Delta Community Hospital

Fillmore Community Hospital

Sevier Valley Hospital

Garfield Memorial Hospital

Cedar City Hospital

Intermountain
Healthcare
Healing for life

ST. GEORGE

Dixie Regional Medical Center