

# Utah State Prison Potential Relocation to Tooele County Health Impact Assessment

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### **Disclaimer**

The opinions, findings, and conclusions expressed in this Health Impact Assessment are those of the authors and not necessarily those of Westminster College.

**Please note:** The following HIA was written from the perspective that the *entire* prison facility would be relocated from Salt Lake County to Tooele County.

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## LIST OF ACRONYMS

ACA	Affordable Care Act
ACS	American Community Survey
AQI	Air Quality Index
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CERT	Community Emergency Response Team
CIT	Crisis Intervention Team
DALY	Daily adjusted life years
DORA	Drug Offender Reform Act
EPA	Environmental Protection Agency
GPM	Gallons Per Minute
HIA	Health Impact Assessment
HIV	Human Immunodeficiency Virus
HRSA	Health Resources and Services Administration
IBIS	Indicator Based Information System
LBW	Low Birth Weight
MWMC	Mountain West Medical Center
NESCAUM	Northeast States for Coordinated Air Use Management
NIMBY	Not In My Back Yard
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PM	Particulate Matter
PRADA	Prison Relocation and Development Authority
QPR	Question, Persuade, Refer
STI	Sexually Transmitted Infection
TB	Tuberculosis
TCHA	Tooele County Housing Authority
TCHD	Tooele County Health Department
UDOC	Utah Department of Corrections
UDOH	Utah Department of Health
UDOT	Utah Department of Transportation
VMH	Valley Mental Health
WHO	World Health Organization

## EXECUTIVE SUMMARY

### PURPOSE

Tooele County Health Department (TCHD) in Tooele, Utah, with Westminster College in Salt Lake City completed a Health Impact Assessment to provide decision makers with information about potential impacts on human health, both positive and negative, which may be experienced by relocating the Utah State Prison from Salt Lake County to Tooele County. Decision makers may use this information to make choices about alternatives and improvements to prevent injury/disease throughout the planning, construction, and operation phases of the relocation, should the prison move to Tooele County.

### WHAT IS A HEALTH IMPACT ASSESSMENT?

Health Impact Assessment (HIA) is an emerging practice that evaluates the impact of plans, policies, and projects on the health of individuals and population groups while suggesting ways to mitigate health outcomes associated with the policy, plan, or project in question. This process is the framework that was used to evaluate the potential health impact of the Utah State Prison moving from the current location in Draper to Tooele County. The phases of a HIA include screening, scoping, assessing, and reporting/evaluation. Based on the anticipated outcomes and available data from previous research, this HIA describes and assesses impacts related to the health determinants in four categories: Environmental, Health Services, Social/Cultural, and Economic Impact.

This literature review will focus on the assessment phase, where evidence is gathered regarding the effects of a potential prison move on health determinants and health outcomes.

Each section will be accompanied by graphics indicating overall effect of various factors on public health. Recommendations have been divided into three sections since health impacts can change depending on the phase of prison development. The Planning Phase consists of the time from which the decision on the relocation site is made through the start of prison construction. The period spent building the prison is the Construction Phase, and the Operational Phase begins when the new prison opens.

#### LITERATURE REVIEW KEY FINDINGS

**Healthcare Burden:** Prisoners are generally characterized by complex health problems. Although incarceration confers its own unique health risks on inmates, prisoners are generally characterized by multifaceted health problems. The U.S. Supreme Court determined that the government must provide necessary healthcare to individuals while they are incarcerated. This burden generally falls on the state in which the inmate resides. Despite their predominantly young age, prisoners have a disproportionately high chronic disease burden and a high prevalence of lifestyle risk factors, both in and out of prison. They often come from poor, marginalized groups in society and have limited to no primary care or disease prevention prior to incarceration; they therefore require considerable investment in healthcare in order to achieve positive health outcomes.

**Mental Health:** Relocating a prison to a new site has the ability to impact the mental health of prison inmates, employees, their families, and the surrounding community. Approximately 45% of federal prisoners have a mental health problem. There is a direct relationship between mental health problems and rates of reoffending. On release, many inmates find it hard to cope without

the support they have received in jail and may not obtain mental health services in the community. The significant role of bridging this gap often falls to organizations within the community. One such organization in Tooele County is Valley Mental Health, which has limited funding and resources for the over 1,400 clients it currently serves. Valley Mental Health strives to help Tooele County residents attain good mental health and addresses areas such as suicide prevention and substance abuse. According to the 2013 Division of Substance Abuse and Mental Health Annual Report, of the estimated adults with a mental health treatment need in Tooele County, only 24% are receiving treatment. Relocating the Utah State Prison to Tooele County is therefore anticipated to increase the demand for mental health services. There is a significant gap between the existing services and the anticipated needs.

**Infectious Disease:** Prisons are constructed to maximize public safety for the prisoners and prison staff. They were not constructed to minimize the transmission of disease. Estimates from the National Correctional Commission Report found high prevalence rates of infectious disease in correctional institutions. These high rates of infectious disease can be related to the close living conditions of prisoners and high levels of intimate contact, which may serve as vehicles of disease transmission. However, it is extremely rare that infectious disease outbreaks within a prison extend to local communities. The prison disease outbreak control system has the capacity and ability to handle infected inmates and provide disease control protocols to staff and volunteers. Local and state health departments are only involved at the request of the prison.

**Chronic Disease:** Prisoners have been found to have higher prevalence rates of chronic disease than the non-institutionalized population. This has been attributed to the fact that many prisoners

come from disadvantaged backgrounds and are usually found to lack medical care both before and after incarceration. Although inmates' health may improve while they are in prison due to access to healthcare, studies have shown that many inmates relapse into their former unhealthy states once released back into society. Factors that lead to poor health outcomes among former inmates include poor discharge planning and lack of access to primary care and a medical home, among others. Care needs to be taken to ensure that these members of society are not marginalized but rather assisted in reintegrating fully into society and to reduce recidivism rates.

**Public Services and Utilities:** The infrastructure needed to operate a prison includes water and electricity. Vital community services that are important to the support of a successful prison include fire protection facilities and law enforcement officers. Reviewing the capacity of Tooele County in relation to the needed utilities and services provides a readiness assessment. Promoting collaboration with local police, prison employees, and Community Supervision Agencies is critical. In a host community, such collaboration helps both public safety and reducing recidivism since over two-thirds of released adult prisoners are arrested within three years of release. Building partnerships helps to reintegrate parolees into a host community and manage probationers so that they refrain from criminal activity. Reentry preparation, case planning, and support for behavior change represent a vital partnership element necessary to facilitate probationer and parolee success.

**Employment:** Employment rates in a community are tightly linked to the mental and physical health of its members. As of July 2014, the unemployment rate in Tooele County is 4.7%, and whether or not a new prison will decrease that rate is unclear. Increasing evidence suggests that

new prisons do not increase employment opportunities in the host communities. Many rural communities are enticed by the possibility that a prison facility will boost their depressed local economy. Many of the jobs available through the prison, however, require a certain amount of education and experience that the rural community members may or may not have. Prior literature has indicated that prison employees prefer to commute to rural prisons and reside in more populated, urban areas, suggesting that local employment opportunities within the prison facility may not be abundant.

**Crime:** There is some evidence from scientific studies about the relationship between prisons and crime rate in the host community. It has been hypothesized that crime rate in host communities increases following prison construction because of new families of inmates moving into the community, visitors of the inmates, and inmates released into the community. The literature review found significant empirical evidence that compared host communities to non-host communities. Overall, the crime rate tends to not increase following prison construction.

**Housing:** Housing influences health outcomes and impacts the potential to reduce crime. Various studies have linked increasing foreclosure rates to unfavorable health outcomes. The foreclosure rate in Tooele County is one of the top two counties in Utah and there is no homeless shelter in the county. Providing affordable housing for people leaving prison is an effective way to reduce the chance of future incarceration. Understanding how correctional facilities influence property values was one of the top four issues listed by participants of the Tooele County Community Survey. Housing studies have shown varying effects on home values. A U.S. Department of Justice National Institute of Corrections study showed little to no change in

residential home sales prices after a prison moved to a host community. Another study reviewed 176 small towns that had a state prison and found a lower median value in housing when compared to small towns without a prison. These are some of the areas that should be considered in analyzing housing, along with offering housing options for vulnerable populations such as senior citizens, people in poverty, people leaving correctional facilities, disabled persons, and the homeless.

**Air Quality:** The impact of air quality on multiple health outcomes has been well documented. A reduction in air pollution levels can reduce the burden of disease from heart disease, stroke, lung cancer and both chronic and acute respiratory diseases, including asthma. Constructing a state prison in Tooele County has the ability to impact the level of air pollutant-related health outcomes in the short term and long term. Construction activities in the short term could produce substantial amounts of air pollutants that increase health risks to construction workers and local residents. The amount of air toxins produced during construction would vary depending on the condition and age of the construction equipment used. In the long term, regional amounts of pollutant levels will be negatively impacted by the anticipated increase in vehicle miles travelled to Tooele County, including additional travel by employees and prisoner families. Tooele and the surrounding communities will experience additional air pollutants that will impact the air quality.

## Primary Recommendations:

Health Indicator	Planning Phase	Construction Phase	Operation Phase
Healthcare Burden	Assess current staffing levels of providers and support staff at health care facilities to determine additional staffing needs	Brainstorm ways to attract and retain qualified health care practitioners and workers to the area	Continue to monitor status of Medicaid expansion in Utah; under the ACA in states that expand Medicaid, people released from prison are eligible for Medicaid
Mental Health	Identify gaps in existing care and find ways to fund additional programs	Recruit qualified mental health workers such as a psychiatrist	Collaborate with UDOC for employee and prison family resources
Infectious Disease	Collaborate with the UDOC and TCHD to share disease investigation protocols	Train Tooele County environmental health specialist to conduct prison health inspections	Follow current outbreak investigation protocols as set by the UDOH. Investigate the feasibility of telemedicine for Tooele County residents
Chronic Disease	Begin planning for prisoner re-entry into the community	Assess and address potential social problems such as homelessness by planning for shelters and halfway houses	Develop and provide health education programs in the prison and primary-care post-incarceration clinics to provide continuity of care
Public Services & Utilities	Incorporate sustainability, recycling, and energy efficiency into utility and construction plan	Continue CERT training and work with UDOC to have designated prison employees trained	Organize quarterly meetings between UDOC employees and local firefighters and police officers

Health Indicator	Planning Phase	Construction Phase	Operation Phase
Employment	Begin collaboration with educational organizations to provide the necessary experience and training to local residents for potential prison jobs	Conduct a study of current Utah State Prison employees to estimate who will commute to Tooele County	Develop a plan to address community employment concerns
Crime	Schedule community meetings with Tooele County Sheriff's Department UDOC to discuss the training and capabilities of prison employees and local law enforcement officers	Provide community members with data from the literature regarding possible effects prison facilities have had on existing host communities	Continually monitor crime rate data and make adjustments as necessary in accordance with Tooele County Sheriff's Department protocol
Housing	<p>Work with TCHA to review existing wait lists and demand for housing assistance and determine ways to reduce wait list time</p> <p>Establish a strategy for creating a homeless shelter and halfway house in Tooele County</p>	Create information and outreach programs for potential new residents and determine ways to promote existing affordable programs with residents	Work with UDOC on housing options for released prisoners and outreach to prison families on affordable housing options
Air Quality	Review existing bus routes/public transportation options within Tooele County and into Salt Lake County for potential expansion	Employ best management construction practices required under OSHA	Work with UDOT on grants to incentivize residents to drive high-efficiency vehicles

ACA: Affordable Care Act; TCHD: Tooele County Health Department; UDOC: Utah Department of Corrections; UDOH: Utah Department of Health; CERT: Community Emergency Response Team; UDOT: Utah Department of Transportation

## SECTION 1: INTRODUCTION

The potential impact on human health following prison relocation can be extensive and is well supported throughout the scientific literature. This Health Impact Assessment (HIA) discusses the potential effects of relocating the Utah State Prison from Salt Lake County to Tooele County. The purpose of this HIA is to provide decision makers with information about potential impacts on human health, both positive and negative, which may be experienced by relocating the prison.

### **1.1 Background**

Utah's Prison Relocation and Development Authority (PRADA) is developing a master plan and programming for a potential relocation of the Utah State Prison. The prison is currently located in Draper at 14425 Bitterbrush Lane, about 20 miles southwest of Salt Lake City at the southern end of Salt Lake County. This location is in the heart of the Wasatch Front and in the most urbanized area of Utah. Over the past several decades, southern Salt Lake County and the city of Draper have experienced growth that has caused urban encroachment around the 680-acre Utah State Prison property. PRADA is working with the Commission on Criminal and Juvenile Justice to create a long-term plan for potential relocation of the facility and is scheduled to make a recommendation on the future of the state's main prison facility during the 2015 legislative session. One location under consideration for the relocation is Grantsville, which is in Tooele County.

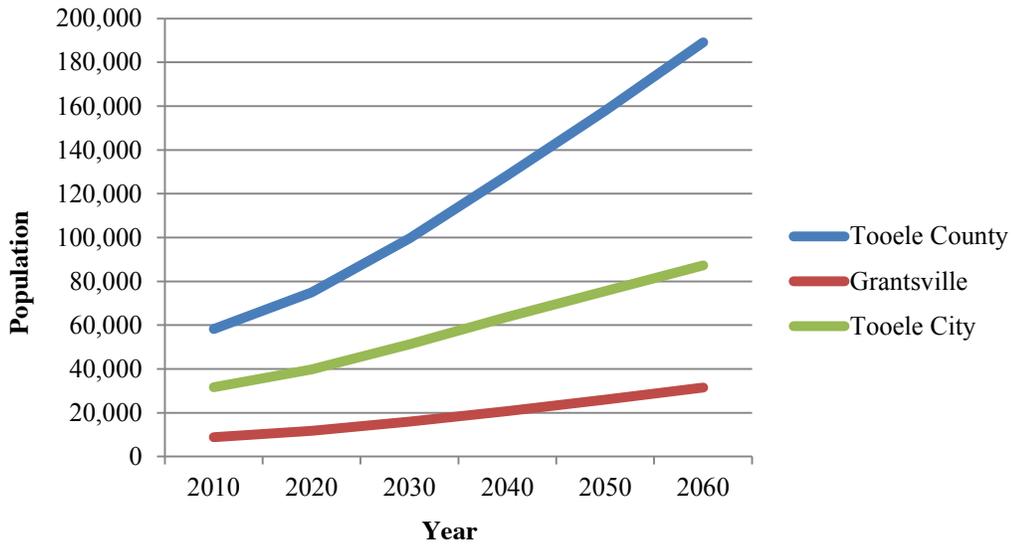
The Utah State Prison has been in existence since the 1950's and according to the Utah Department of Corrections (UDOC), the 2013 population was 3,280 men and 546 women (UDOC Planning and Research Bureau, 2013). With a current bed capacity of 3,980, the Utah State Prison represents more than three quarters of the entire state's prison capacity of 5,576

beds. By 2033, UDOC will need 10,556 beds to house the average daily population of 9,913 (MGT, 2014).

The prison inmates have various mental health, dental, and other medical needs that are currently treated in-house or off-site through the University of Utah Medical Center. Some of the medical needs are met through telemedicine, a method that uses electronic technologies to provide consultation, diagnostic, and follow-up support from a distance and is both cost and time-effective for a prison setting. The Utah State Prison currently supports a myriad of telemedicine services including obstetrics/gynecology, dermatology, cardiology, ear nose and throat, infectious disease, orthopedics, urology, and neurology. In addition to telemedicine, the Utah Prison System tightly controls the treatment of chronic disease, among other reasons explaining why Utah has the lowest per-capita health care costs in the nation among states that incarcerate fewer than 10,000 offenders. Utah's prison system is far below the national average for cost per inmate: \$4,000 vs. the national average of \$6,000.

Tooele County is located in northwest Utah, approximately 30 minutes from Salt Lake City, and has 6,941.35 square miles of land area (United States Census Bureau, 2013). There are 29 counties in the state of Utah, and Tooele County is the seventh most populated. As of 2013, the total population of Tooele County was 60,720, which is approximately 6% the size of Salt Lake County, the largest county in Utah, and 2% of the entire state of Utah. Population is anticipated to reach 74,877 in 2020, 99,664 in 2030, and 128,348 in 2040 (Figure 1.1).

**Figure 1.1** Population projections, Tooele County



Source: Utah's Population Estimates Committee

According to the most recent data available in Utah's Indicator-Based Information System (IBIS) for Public Health, Tooele County demographics closely mirror that of both Salt Lake County and the state of Utah (Table 1.1). Residents 0-17 years of age make up 35% of the population in Tooele County, whereas those 24-44 years old comprise 29% of the population. There are equal numbers of males and females, and the majority of the population is white (95%) and non-Hispanic (87%).

**Table 1.1** Demographic characteristics of populations of interest, IBIS data, 2012

	<b>Tooele County</b>	<b>Salt Lake County</b>	<b>State of Utah</b>
<b>Total population</b>			
2008	55,909	999,523	2,663,029
2009	57,218	1,016,795	2,723,421
2010	58,522	1,033,196	2,775,093
2011	59,272	1,047,746	2,814,347
2012	59,870	1,063,842	2,855,287
<b>Age</b>			
0-17	21,163	306,723	887,972
18-24	4,786	107,965	326,987
25-34	8,455	181,396	445,048
35-44	8,751	143,816	356,699
45-54	6,644	123,115	305,787
55-64	5,336	104,209	261,367
65+	4,735	96,618	271,419
<b>Gender</b>			
Male	30,291	534,877	1,435,860
Female	29,579	528,965	1,419,427
<b>Race</b>			
White	56,763	947,370	2,620,788
Black or African American	473	20,445	36,717
American Indian/AK Native	733	13,746	42,049
Asian	465	38,414	63,857
Pacific Islander	260	17,312	27,563
<b>Ethnicity</b>			
Hispanic	6,861	180,277	379,463
Non Hispanic	51,833	857,010	2,475,851

IBIS: Indicator-based Information System; AK: Alaska

It is vital to understand the potential health impacts to Tooele County residents, the surrounding community, and the prison population in the event that the Utah State Prison relocates from Salt Lake County to Tooele County. Conducting an HIA will help the TCHD identify the potential health effects that relocation would have on Tooele County. Based on the

anticipated outcomes and available data from previous research, this HIA describes and assesses impacts related to the following health determinants:

- Health Services
- Social/Cultural
- Economic
- Environmental

### **1.2 Health Status of Tooele County**

According to the 2014 County Health Ranking and Roadmap Report (County Health Rankings, 2014), of the 27 ranked counties in Utah, Tooele County ranked 19<sup>th</sup> for Health Outcomes and 18<sup>th</sup> for Health Factors. Health Outcome rank is intended to be an indication of the county's overall health and is determined based on equal weighting of length and quality of life. Health Factor rank is determined by considering data on health behaviors, clinical care, social and economic factors, and the physical environment of each county.

Multiple datasets contain statistics on the health statuses of Utah communities. Based on data from the Behavioral Risk Factor Surveillance System (BRFSS), IBIS, and Utah Department of Health's (UDOH) annual health report, Tooele County is similar to Salt Lake County and the state of Utah with regard to many health indicators (Table 1.2). Rates for sexually transmitted infections (STIs), enteric disease, and vaccine-preventable diseases are similar across the three geographical strata. Cancer rates, however, are slightly higher in Tooele County compared to both Salt Lake County and the state of Utah. Although physical activity levels appear to be similar, Tooele County has slightly higher rates of obesity compared to both Salt Lake County and the state of Utah (32%, 26%, and 24%, respectively), and as of 2013 had the highest obesity rate in the entire state.

The Tooele County Health Department (TCHD) is aware of the importance of reducing obesity. It implemented a strategic action plan in 2010-2011 that has the overarching goal of improving the quality of life in Tooele County from a public health perspective. Three of its top five goals are related to obesity. Among many other goals, Tooele County aims to increase the proportion of adults who are at a healthy weight by 30% and increase the physical activity levels among persons with or at risk for developing diabetes by 25%. These goals tightly align with the state's Nutrition and Physical Activity Plan for 2010-2020.

**Table 1.2** Frequency and incidence rate of health indicators, Tooele and Salt Lake County, Utah

Variable	Tooele County		Salt Lake County			
	Frequency (N or %)	Incidence rate*	Frequency	Incidence rate	Frequency	Incidence rate
<b>Communicable Disease**</b>						
Campylobacter	7	11.69	151	14.19	451	15.8
Chlamydia	118	197.09	3,924	368.85	7,616	266.73
Giardia	7	11.69	141	13.25	286	10.02
Gonorrhea	3	5.01	340	31.96	480	16.81
HIV/AIDS	3	5.01	60	5.64	109	3.87
Hepatitis A	0	0	2	0.19	4	0.14
Influenza Hospitalizations	2	3.34	315	29.61	608	21.29
Pertussis	5	8.35	678	63.73	1,591	55.72
Shiga Toxin Producing <i>E. coli</i>	0	0	31	2.91	107	3.72
Salmonella	11	18.37	92	8.65	260	9.11
Syphilis	0	0	75	7.05	102	2.38
Tuberculosis	0	0	23	2.16	38	1.33
Varicella (Chicken Pox)	1	0.67	75	7.05	318	11.14
<b>Chronic Disease</b>						
All Cancer***	230	503.43	3,604	411.51	9,344	415.01
Diabetes^	11.17%	-	7.59%	-	7.36%	-
<b>Vital Statistics****</b>						
Live Births	990	16.54/1,000	17,907	16.83/1,000	51,439	18.02/1,000
Deaths	313	522.8	5,976	561.74	15,526	545.76
<b>Lifestyle/Behavioral^</b>						
Meet physical activity guidelines	52.10%	-	55.12%	-	55.82%	-
Do not meet physical activity guidelines	47.90%	-	44.88%	-	44.18%	-
Obesity	31.74%	-	25.51%	-	24.39%	-

\*per 100,000 population unless otherwise noted; \*\* 2012 UDOH Annual Report;\*\*\* 2011 IBIS data;\*\*\*\* 2012 IBIS data;^ BRFSS 2011

### **1.3 Community Survey**

Research suggests that attitudes and perceptions of community members living or working in the location of a potential prison facility location (host community) determine the degree of resistance to the relocation proposal (Rogers & Haimes, 1987; Martin & Myers, 2005). Because community perceptions surrounding prison relocation are of the utmost importance, and there is a dearth of data specific to Tooele County residents, we conducted a community-wide survey. The goal of the survey was to assess current perceptions surrounding potential impacts of relocating the Utah State Prison from Salt Lake County to Tooele County. The survey questions focused on central themes such as demographic characteristics, awareness and knowledge of potential relocation, quality of life, crime and safety concerns, and perceptions of economic impact. Surveys were administered in English both online via the TCHD's website and in person at the Tooele County Arts Festival and Chamber of Commerce Luncheon. The complete survey is included in Appendix A.

The survey was administered from June 20 through July 23, 2014. A total of 577 people responded to the survey. Fifty-one surveys were completed at the Arts Festival, 35 at the Chamber Luncheon, 8 were hand-delivered to TCHD staff, and 485 were completed online. Participants were excluded if they did not live or work in Tooele County or did not complete questions pertaining to perceptions. The final sample totaled 545 surveys. The majority of participants were female (n=372, 68%), lived in Tooele (n=290, 53%), and were between the ages of 25 and 45 (n=343, 63%). Table 1.3 shows the demographic characteristics of the survey participants and how they compare to Tooele County as a whole. Participants lived in a variety of cities throughout Tooele

County; however, the geographical strata of the survey population are largely representative of the population distribution within Tooele County. While the respondents were representative of the target population, there were differences that warrant discussion. The age discordance makes sense because the survey targeted the adult population (those >18 years of age) and 43% of Tooele County residents are under 18 years of age. The sample was 68% female, whereas Tooele County is split almost equally across genders. This was not surprising considering some literature suggests that females use computers more for educational assistance and that males use computers more for entertainment (Weiser, 2000). Since most of our surveys were completed online, usage differences across gender could explain why the majority of responses were from females.

**Table 1.3** Demographic characteristics of survey participants and Tooele County residents, Community Survey, 2014

<b>Variable</b>	<b>Sample N=545</b>	<b>Tooele County N=59,870*</b>
<b>Gender</b>		
Male	31.7%	50.6%
Female	68.3%	49.4%
<b>Age</b>		
<25	6.2%	43.3%
25-34	30.4%	14.1%
35-44	32.3%	14.6%
45-54	17.4%	11.1%
>55	13.8%	16.9%
<b>Residence</b>		
Tooele City	53.2%	54.3%
Stansbury Park	21.5%	25.7%
Grantsville	15.4%	15.3%
Other	9.9%	4.6%

\* 2012 IBIS data

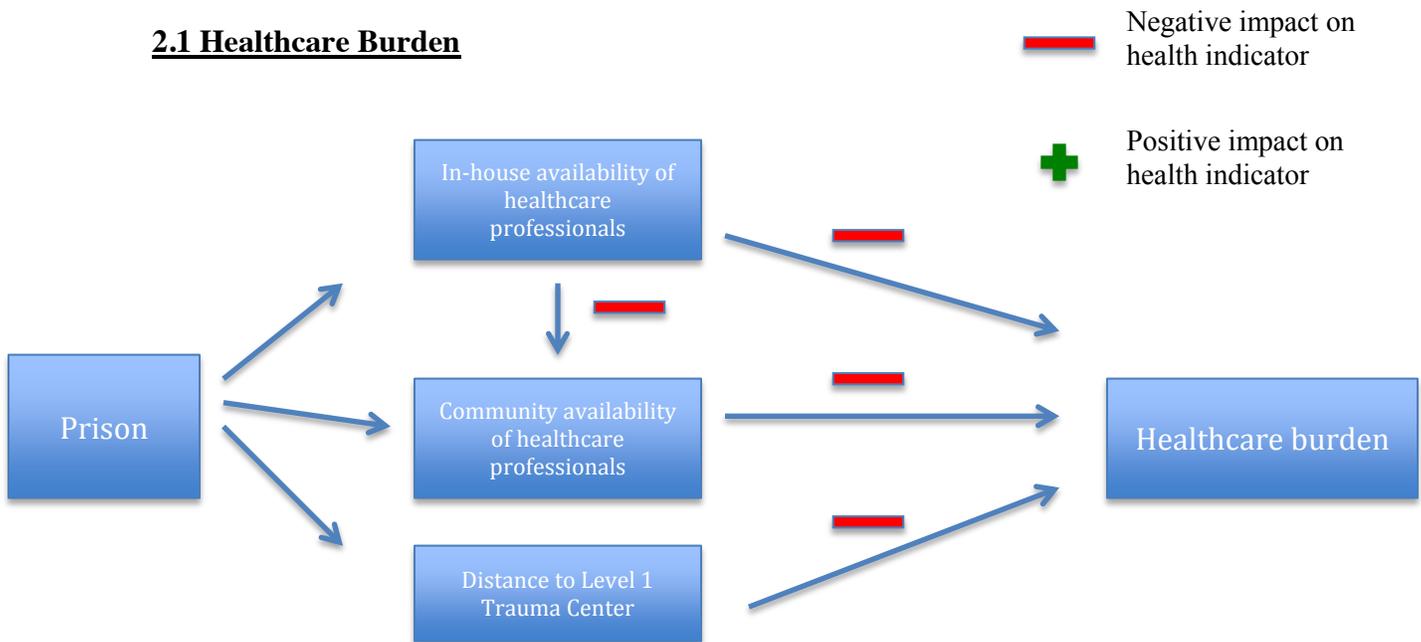
The majority of participants (>80%) had prior knowledge of the potential relocation of the Utah State Prison from Salt Lake County to Tooele County. Residents' views on a prison relocation to Tooele County were divided among the participants, with 43% against and 40% in favor of the prison relocating from Salt Lake County to Tooele County. Approximately 15% of the survey participants were unsure if they would support a prison move. This response makes sense, as the exact location of the potential site within Tooele County has not yet been decided, and proximity to the prison site might influence whether an individual supports the relocation. Results of the survey will be discussed throughout sections of this HIA report (see Table 1.4 for survey results).

**Table 1.4** Summary results from the Community Survey, Tooele County, Utah, 2014

Survey Question	Number of Respondents	Survey Response						
		Yes	No	Unsure				
Would you support a decision to relocate the prison from Salt Lake County (Draper) to Tooele County (Grantsville)	533	220 (41%)	235 (44%)	78 (15%)				
If the prison were to be constructed and operated in Tooele County, would you fear for your personal safety?	544	176 (32%)	285 (52%)	83 (16%)				
		<b>Housing Quality</b>	<b>Jobs and Economic Development</b>	<b>Crime prevention</b>	<b>The look of the prison</b>	<b>Air quality</b>	<b>Traffic</b>	<b>Disease</b>
If the prison was relocated from Salt Lake County to Tooele County, what are key issues that you feel should be addressed (please select up to 3 issues):	545	195 (36%)	311 (57%)	359 (66%)	145 (27%)	68 (12%)	243 (45%)	85 (16%)
		<b>Increase</b>	<b>Decrease</b>	<b>Stay the same</b>	<b>Unsure</b>			
What effect do you think it would have on local business:	545	217 (40%)	91 (17%)	143 (26%)	94 (17%)			
Do you believe the value of your home would:	543	45 (8%)	246 (45%)	156 (29%)	96 (18%)			
Do you believe the quality of your life would:	544	34 (6%)	122 (23%)	310 (57%)	78 (14%)			

## SECTION 2: EVALUATIONS AND RECOMMENDATIONS

### 2.1 Healthcare Burden



### **Introduction**

Physical health problems are far more prevalent among U.S prisoners than among the general population, even after accounting for age and gender differences. According to a survey conducted by the Bureau of Justice Statistics (BJS), data from 2004 shows that 44% of state prison inmates suffer from a medical problem other than a cold or virus: 15% of them suffer from arthritis, 14% from hypertension, 9% from TB, 9% from asthma, 6% from hearing problems, 5% from hepatitis, 4% from diabetes, 3% from kidney problems, 3% from stroke and its complications, 1.6% from HIV, 0.9% from cancer and 0.8% from an STI. Prisoners reporting having either a speech, vision or hearing impairment is 36% while 23% report having a learning impairment. Multiple impairments were noted by 16% and 44% reported having drug abuse or dependency issues and 50% reported having dental problems since admission. Therefore, by

extension, the U.S. also has a prisoner reentry population with substantial health problems (Mears & Cochran, 2012).

However, health problems among inmates are not confined to prison walls and are part and parcel of the community they belong to. The National Commission on Correctional Health Care (NCCHC) (1995) stated that health care before during and after incarceration “is a societal responsibility, not only for the health and well being of the patient, but for the protection and enhancement of the health and general well being of the public” (Roger & Siegenthaler, 2001, p. 46).

The criminal justice system assumes control over an incarcerated individual and therefore, with proper support and funding from the government, has a moral obligation to ensure that inmates and ex-prisoners receive services and treatment to reduce the likelihood of diseases such as TB from spreading to others in the community and that other conditions such as mental health do not adversely affect their families.

Unaddressed healthcare needs among inmates and ex-inmates can pose substantial risks to public health because every inmate who leaves a correctional facility without treatment for a disease such as a sexually transmitted infection, hepatitis, HIV or TB might become a source of transmission to the community. The level and quality of services and treatments provided thus need to be assessed.

### **Assessment**

According to the U.S. Census Bureau, in 2013 Tooele had a population of 60,762 residents. The town of Grantsville, one of the potential prison relocation sites, has a population of approximately 9000. The prison would bring in an additional 4,500

inmates, thus expanding the population of Grantsville by approximately 50%, not counting prison staff and their families. This approximation does not take into account the potential of inmates' family members and friends moving into the area as well, which could increase the town's population by up to 10,000 or more by the year 2033.

### Health Care Workers

The American Bar Association's Criminal Justice Standards on Treatment of Prisoners Part VI, states that the correctional facility must adequately address the healthcare needs of any prisoner within its facility, regardless of duration of incarceration and of cost. This includes preventive, routine, urgent and emergency care, provided by appropriately trained and qualified staff (ABA, 2010). The health workforce consists of all people engaged in actions whose primary intent is to improve health, including health service providers, administrators and support staff.

The World Health Organization (WHO) (2014) has established a minimum threshold of 23 frontline health workers (doctors, nurses, midwives, etc.) per 10,000 population as necessary to effectively deliver essential health services to an area. In 2012, The American Community Survey (2012) showed that the number of healthcare practitioners and healthcare technicians in Tooele County was 435. Of these, 60 were physicians and surgeons, 190 were Registered Nurses and 10 were Licensed Practical Nurses (US census bureau, 2012). As of 2013 there are also 31 Physician Assistants, 2 Certified Nurse Midwives and 9 Nurse Practitioners practicing in the area (HRSA, n.d). This is a total of 302 frontline health care workers or 49.7 Health Care Workers per 10,000 population. Based on this data, it appears that Tooele County has enough health

care practitioners and workers to absorb a population increase of at least 10,000 more residents. Neither Tooele County nor Grantsville is currently designated as a Health Professional Shortage Area (HPSA) or as a Medically Underserved Area (MUA) (HRSA, 2014).

### Health Care Facilities and Services

Grantsville is a rural community and does not have a major hospital or health care facility of its own. The closest medical facility, Mountain West Medical Center (MWMC) in Tooele, is 11 miles and a 15-minute drive away. MWMC is a 43-bed facility with services that include lab, surgery, women's health and a 24-hr Emergency Department. However, it is not a Level 1 Trauma Center, meaning that it has neither a trauma surgeon in the Emergency Department at all times (one is on call), nor specialty surgeons (e.g. neurosurgeons) on call. MWMC has about 80 doctors on its staff.

Tooele County needs to have the resources and capability to address the increased needs of additional residents. This includes services to those suffering from chronic infectious diseases like HIV/AIDS, chronic conditions like diabetes and hypertension, and acute infections and traumas. There are also special-needs populations (i.e. women, younger inmates, elderly inmates and ethnic minorities) that will need sufficient health-care services.

The closest Level 1 trauma center is the University of Utah hospital, which is approximately 35 miles away, a 40 minute drive. The other Level 1 Trauma Facility is Intermountain Medical Center, 43 miles away. Currently, the distances to these facilities from the Draper prison location are 25 and 10 miles, respectively. Moving the prison to

Grantsville will therefore increase the costs of road and air transport to these 2 facilities, a cost that is usually borne by state and local budgets.

### Health Care Costs

According to the Utah Department of Corrections (UDOC, 2014), Utah spends an average of \$4000 on health-care per inmate per year, a figure that is relatively low, partly due to the fact that Utah's prison population average age is lower than the national average. However, between 2001 and 2008, Utah's expenditure on correctional health care went up by 72% (Pew Charitable Trust, pg. 28. 2013). Due to the inherently poor health of the prison population, the rising costs of health care and the fact that the new prison will house even more inmates, we can reasonably project that health care spending will continue to increase.

Another issue that needs to be addressed is the turnover of detainees and health care for ex-prisoners. Studies have shown that although inmates' health usually improves in prison because they are provided with stable accommodation, regular meals and health services and have less access to illicit drugs, these health gains are often lost after prisoners return to the community (Kinner & Wang, 2014). Release from custody usually leads to decreased compliance with treatment and an increase in risky behaviors such as unprotected sex, and needle-sharing, making them a threat to public health. Emerging evidence also suggests that ex-prisoners underutilize preventive health care but over-utilize high-cost acute health care settings like emergency departments and hospitals (Kinner & Wang, 2014).

## **Recommendations**

### Planning Phase

As of 2014, Utah State and Tooele County stand to gain substantially in potential federal reimbursement if Medicaid is expanded in Utah. Under the Affordable Care Act (ACA), this means that inmates, including those on parole and those under house arrest are eligible for Medicaid if they receive care outside the prison walls, lifting a huge financial burden from the State.

Staffing levels at area health care facilities need to be assessed to ensure that they can accommodate an expanding population. If inadequate, then Tooele County needs to develop a plan to attract and retain more health care professionals to the area.

### Construction Phase

With the data gathered in the Planning Phase on current healthcare facilities staffing levels, this will determine if it is necessary to recruit additional medical personnel. The additional workers, if needed, will help to accommodate the anticipated increase in population.

### Operation Phase

One of the best practices of the State Prison is the use of telemedicine. They should continue to use this technology to reduce the amount of transportation to medical facilities.

**Summary of Recommendations:**

<b>Planning Phase</b>	<b>Construction Phase</b>	<b>Operation Phase</b>
<p>Monitor the status of Medicaid Expansion in Utah-- under ACA, released inmates are eligible for Medicaid if they receive care outside the prison walls</p> <p>Assess current staffing levels at healthcare facilities in Tooele County and determine if additional staffing is needed in order to accommodate influx of people into the county</p>	<p>Brainstorm ways to attract and retain healthcare workers in Tooele County if needed</p>	<p>Continue use of telemedicine at the prison in order to reduce costs of transportation to medical facilities</p>

ACA: Affordable Care Act

## 2.2 Mental Health



### **Introduction**

Mental health is a significant part of health and well-being, as reflected in the definition of health in the constitution of the WHO: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 2013, p. 100). Good mental health enables people to realize their potential, cope with the normal stresses of life, work productively, and contribute to their communities. There is developing evidence that positive mental health is associated with improved health outcomes (CDC, 2013).

Mental illness is defined as "collectively all diagnosable mental disorders" or "health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning" (HHS, 1999, p. 5). Depression is the most common type of mental illness, affecting over 26% of the U.S. adult population (Kessler et al., 2005, p. 617). By the year 2020, it has been estimated that depression will be the second leading cause of disability worldwide, following behind ischemic heart disease (Murray & Lopez, 1996). Evidence has shown

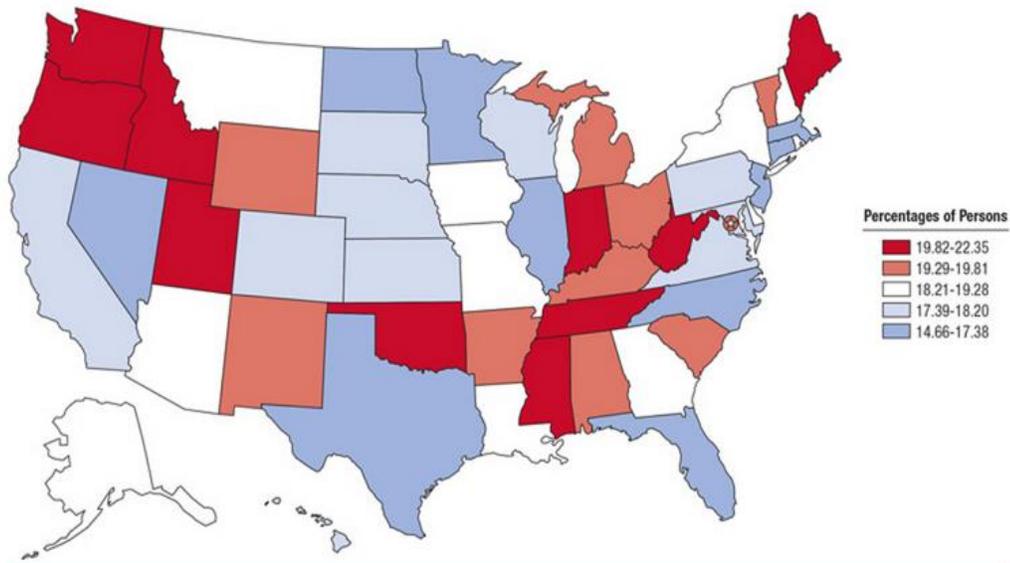
that mental disorders, such as depressive disorders, are strongly connected to the occurrence, treatment, and course of many chronic diseases, such as cancer, cardiovascular disease, diabetes, asthma, and obesity (Chapman et al., 2005). Many risk behaviors for chronic diseases are also impacted by mental health and include physical inactivity, smoking, excessive drinking, and insufficient sleep. Therefore, it is critical to understand the impact of a potential prison relocation on the mental health of a community and how to proactively address these concerns.

## **Assessment**

### **Mental Health in Utah**

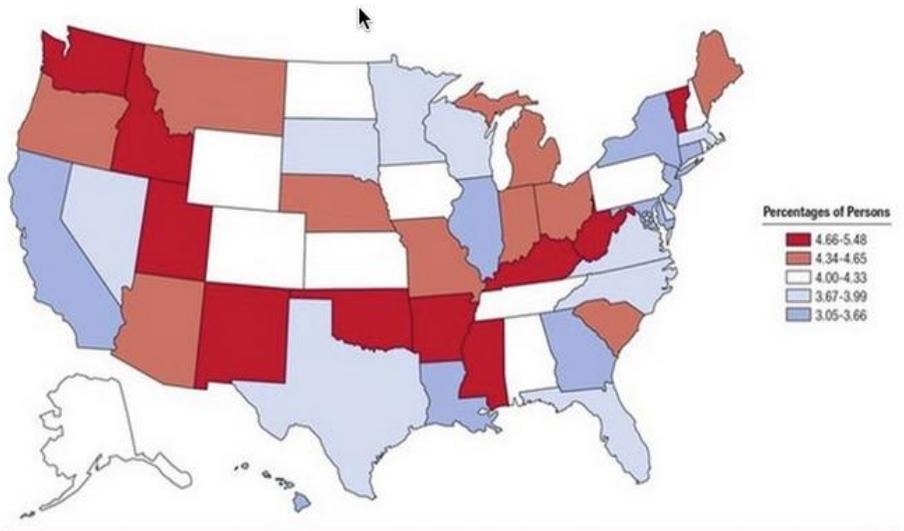
According to a 2014 study conducted by the Substance Abuse and Mental Health Services Administration, Utah has the highest rate of mental illness in the nation (SAMHSA, 2014). About 22.4% of the adult population in Utah experienced a mental disorder in the past year. Out of those people, 5.14% had a severe mental disorder that interfered with their daily activities.

**Figure 2.1** Any mental illness in the past year among persons aged 18 or older, by state: percentages, annual averages based on 2011 and 2012 National Surveys on Drug Use and Health



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2011 (revised October 2013) and 2012.

**Figure 2.2** Serious mental illness in the past year among persons aged 18 or older, by state: percentages, annual averages based on 2011 and 2012 NSDUHs



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2011 (revised October 2013) and 2012. Courtesy of SAMHSA

Based on the ACS 2012 Tooele County population estimate, we can extrapolate that there are approximately 1,765 adults in Tooele County who would be considered to

have serious mental health conditions. Providing sufficient services for this population is a concern. Based on interviews with various Tooele County healthcare professionals, there is apprehension about the current capacity for mental health services in Tooele County. Valley Mental Health (VMH) currently provides various mental health services to Tooele County residents in 5 locations. As of July 2014, VMH had an open client load of 1,400 clients, seeing 140 clients daily. VMH treats various mental health issues from depression and anxiety to schizophrenia. The staff is currently booked for appointments two to three weeks in advance. VMH professional expressed concern about providing psychiatric care—the only licensed psychiatrist in Tooele is transferring out of the county. The other resource who is providing psychiatric care is a nurse practitioner who works 36 hours a week. VMH also has one full-time employee who provides services at the Tooele County Detention Center. A summary of the services offered is listed in Table 2.1. Another challenge is having enough qualified mental health services staff that mirrors other rural states. There is a constant shortage of healthcare professionals who want to practice in rural communities. The Division of Substance Abuse and Mental Health identified psychiatric nursing shortages as being at a crisis level (NAMI, 2006). Currently, 62% of employees at VMH live in Tooele County and the remainder commutes from other counties (VMH, 2014). Recruiting for expanded mental health needs should therefore be a key consideration in a prison move.

**Table 2.1** Services provided by Valley Mental Health, Tooele County

<b>Service Provided</b>	<b>Overview of Service</b>
<b>Outpatient Mental Health Care and Services</b>	Outpatient treatment has an emphasis on short-term treatment to help individuals and families to manage their problems and live in the community. This includes individual therapy/counseling, family therapy/counseling, group therapy, medication evaluation and management, and crisis intervention.
<b>Outpatient Substance Abuse Care and Services</b>	These services include diagnosis and treatment of alcoholism and drug addiction and a continuum of services from hospitalization to support, as determined by individual need.
<b>Psychotropic Medication Management</b>	Medication management through licensed psychiatrists and prescriptive practice nurses.
<b>Psychosocial Rehabilitation</b>	Clubhouse model to provide a supportive and accepting community in which members gain a sense of belonging and accomplishment through meaningful work relationships including the <i>Work-Ordered Day Employment program</i> , <i>Transitional Employment</i> , and <i>Independent Employment</i> programs.
<b>Forensic Services</b>	Forensic services are for adults referred to Valley Mental Health from the criminal courts, State Parole and Probation, Federal Parole and Probation, Criminal Justice Services, and other correction agencies. VMH works with the Drug Offender Reform Act (DORA) with clients who have recently been released from jail.
<b>Case Management</b>	Case management support is provided to assist clients in effectively utilizing available community resources. It is provided for clients diagnosed with a severe and persistent mental illness who require more extensive outpatient services to promote independence and recovery in the community. They are helped to secure quality medical, dental, and substance abuse services in the community and are referred to the program by their primary therapist.
<b>Community Supports</b>	This includes in-home services, housing, family support services, and respite services, which are made available to clients in need through referral from their primary therapist.
<b>Consultation and Educational Services</b>	Includes but is not limited to: case consultation, collaboration with other state agencies, public education, and public information.
<b>Specialized Services for Children and Youth</b>	Children's Unit that offers individual and family counseling for children, substance abuse and mental health counseling.

**Table 2.1 continued**

<b>Service Provided</b>	<b>Overview of Service</b>
<b>Prevention Services</b>	Valley Mental Health provides prevention and education services along with programs based on the Risk and Protective Factor model, and best practices developed by the Center for Substance Abuse Prevention. They identify risks for substance abuse and violence and develop resiliency through healthy life skills. Their prevention programs address specific needs of communities through school and family-based approaches. VMH has three staff members that work in the elementary, junior high and high schools on substance abuse. On Suicide Prevention, they offer QPR (Question, Persuade, Refer) Training free of charge to interested individuals
<b>Food Bank</b>	The Food Bank provides a supply of food to Tooele County residents in need of assistance. The current volume is approximately 50 families per day and is increasing. They assist with referrals to other agencies that can help the household to become self-sufficient. They receive food from the Utah Food Bank and local area food drives.  The Food Bank also supports the following services: Baby Care Cupboard (sponsored by the Kiwanis Club of, Rent/Mortgage Assistance when funding is available), Thanksgiving and Christmas Food Boxes, Tooele County Operation Christmas.
<b>Domestic Violence Shelter</b>	There are currently 14 beds available to provide help to women and children in crisis.
<b>Crisis line</b>	There is a 24-hour confidential crisis line: (435) 843-3520 Monday-Friday 8:00 a.m.-5:00 p.m. and (435) 882-5600 evenings and weekends.

<b>Table 2.2 Valley Mental Health, Tooele County Locations</b>		
<b>Office Location</b>	<b>Services Provided</b>	<b>Hours</b>
<b>100 S 1000 W, Tooele</b>	Adult counseling, including substance abuse and mental health	8:00 a.m.-5:00 p.m.
<b>27 S Main Street, Tooele</b>	Children’s Unit, individual and family counseling	8:00 a.m.-5:00 p.m.
<b>565 W 900 S, Tooele</b>	New Reflections House Substance Abuse Counseling	8:00 a.m.-5:00 p.m.
<b>429 E Main Street, Grantsville</b>	Adult counseling	2 days/week
<b>606 Aria Boulevard, Wendover Office 838, Wendover</b>	Substance abuse treatment services	7:30 a.m-7:00p.m. M-Th 7:30 a.m.-5:00 p.m. F

Promotion and Prevention

Community mental health needs should be addressed through comprehensive strategies for promotion, prevention, treatment, and recovery. VMH promotes its services through social websites, such as Facebook. It also partners with the Tooele County School Department and purchased an advertisement through the Stansbury High School Football team. VMH previously worked with the Grantsville Senior Center and now has an office at the Grantsville City Hall.

Partnerships

VMH partners with various agencies to provide services and programming. The many organizations that VMH works with in the community to serve the residents of Tooele County include Tooele County and Tooele City Police Department, Grantsville and Stockton Police, Utah Highway Patrol, Tooele County Health Department, Department of Workforce Services, Child and Family Services, the Tooele County

Children’s Justice Center, and the Tooele County School District. VHM also works with the State Office of Rehabilitation and various courts such as the Tooele County Third District Juvenile and Adult Courts and the Juvenile and Adult Drug Courts. This is a best practice and is critical in a geographically dispersed county such as Tooele County.

### Diverting Mentally Ill Population from Incarceration

The Treatment Advocacy Center found that more than three times as many severely mentally ill persons in the U.S. are doing time in jails and prisons than receiving treatment in hospitals (Treatment Advocacy Center, 2010, p. 1). Other studies over the last 30 years show a near tripling of the percentage of U.S. inmates who suffer from severe mental illness, to a current level of at least 16% (Teplin, 1990, p. 1332, Steadman et al., 2009). Utah was ranked first nationwide for diverting people with mental illness from jail based on the Treatment Advocacy Center “Mental Health Diversion Practices” 2013 report. In addition, Utah ranked first for the percentage of population served by a mental health court (85%) and for the percentage of population served by Crisis Intervention Team (CIT) (97%) (Treatment Advocacy Center, 2013). Doug Thomas, the Director of Utah Division of Substance Abuse and Mental Health, discussed the need for collaboration to achieve the number one ranking: “The key to Utah’s high ranking is financial and program collaboration at various levels . . . between county mental health authorities, city and county law enforcement, courts and mental health advocates at the local level working together” (SLCPD, 2013). He also stated that the appropriate diversion to treatment through CIT helps people to get effective treatment interventions to address their healthcare needs: “Officers are safer in their interactions with people

going through a mental health crisis . . . it's a win-win situation that needs consistent support because the underlying facts—mental illness, substance abuse and contact with law enforcement – are ever present” (SLCPD, 2013).

There is not currently a Mental Health Court in Tooele County, probably due to the population and geographic size of the county (Cache County has one with a population of 112,656). Led by the Salt Lake City Police Department, CIT Utah offers free training to officers statewide. Tooele County is one of the 21 counties that has a CIT operated by law enforcement agencies. Chris Burbank, the Salt Lake City Chief of Police, talked about the importance of the program: “CIT Training may help that officer see the difference between mental illness and criminal behavior which I know has saved lives.” (SLCPD, 2013). Successful programs such as CIT should be continued and expanded to address the growing need for mental illness services.

### Suicide Prevention

To gain data on mental health issues such as suicide, the Student Health and Risk Prevention (SHARP) Survey is administered to all students in grades 6-12 within the Tooele County School District. This report is a good indicator of levels of substance use, risk, protection, and antisocial behavior. In keeping with the vision that prevention services are designed to have a positive impact on the lives of individuals, efforts have been made to ensure that the survey also gathers data on issues such as mental health, suicide, and other prevention-related topics. The 2013 SHARP data shows a significant increase in the Risk Factor Depressive Symptoms, especially in the transition years of seventh and ninth grades. The number of students district-wide reporting a need for

mental health treatment as well as considering suicide merits increased awareness and attention. Of those students surveyed, 15.2% reported needing mental health treatment (up 1% from 2011) and 14.1% of all grades surveyed reported considering suicide (up 2.4% from 2011). VMH offers prevention programs through the Tooele County School district to help reduce the suicide rate.

Local archival data, gathered from MWMC, supports the findings in the SHARP survey. Patients between the ages of 11 and 18 seen in MWMC Emergency Department for suicidal ideation, suicide gesture, or attempted suicide have nearly doubled in the past four years. According to the Utah Violence and Injury Small Area Report, Tooele County is higher than the state average for Self-Inflicted Injury Hospitalizations, and Suicide is the third leading cause of death in Tooele County (TCHD, 2014). In Tooele, there were 25 suicide deaths between 2010 & 2012, a rate of 17 per 100,000; 174 people hospitalized for suicide attempts between 2010 & 2012; and 284 Emergency Department encounters for suicide attempts between 2009-2011, with 13.3% of youth in Tooele report seriously considering suicide (QPR Training, 2014). There have been 15 confirmed suicides of Tooele County residents from January 1, 2014 to present. According to the Utah Violence and Injury Small Area Report, Tooele County is higher than the State average in self inflicted injury hospitalizations. Suicide is the number three leading cause of death in Tooele County (TCHD, 2014).

One concern is that suicide rates would continue to rise with an increased population and prisoners being released from jail. VMH offers QPR training on suicide prevention. This is a national suicide prevention program with over 114 Certified QPR Gatekeepers in Utah (QPR Institute, 2014). QPR meets the requirements for listing in the

National Registry of Evidence –based practices and policies. The training is offered free of charge to interested individuals, and VMH has completed over 15 presentations to various groups and offered the class at Tooele City Hall.

Free crisis counseling is offered through a crisis phone line. Monday through Friday, there are two lines available: one for adults at (435) 843-3520 and another for children at (435) 566-5927. On evenings and weekends there is also a line available for a crisis counselor at (435) 882-5600. Current volume for calls is approximately 4-5 calls during 8:00 a.m.-5:00 p.m., averaging 10-12 calls in the evenings. The staff on call must have the minimum training as a social service worker. In the event of an emergency, callers are instructed to call 911.

Tooele County currently contracts with VMH to provide mental health services. Community members may stop by to talk to a crisis worker without an appointment at the 100 South 1000 West location in Tooele. Children and their families may receive services at 27 South Main Street in Tooele. These services are offered free of charge due to state and federal funds, including funds from The Drug Offender Reform Act (DORA). Payment for client services can be through Medicaid, Medicare, private insurance or self-pay.

### Substance Abuse

In the 2012-2017 Tooele County Community Health Improvement Plan, Substance Abuse is listed as the number-two priority behind obesity as a critical need. When a legislator and one of the members of the Prison Relocation Committee was asked about concerns with the potential prison move, they stated that their prime issue is to

make sure an array of mental health facilities and rehab organizations are in place.

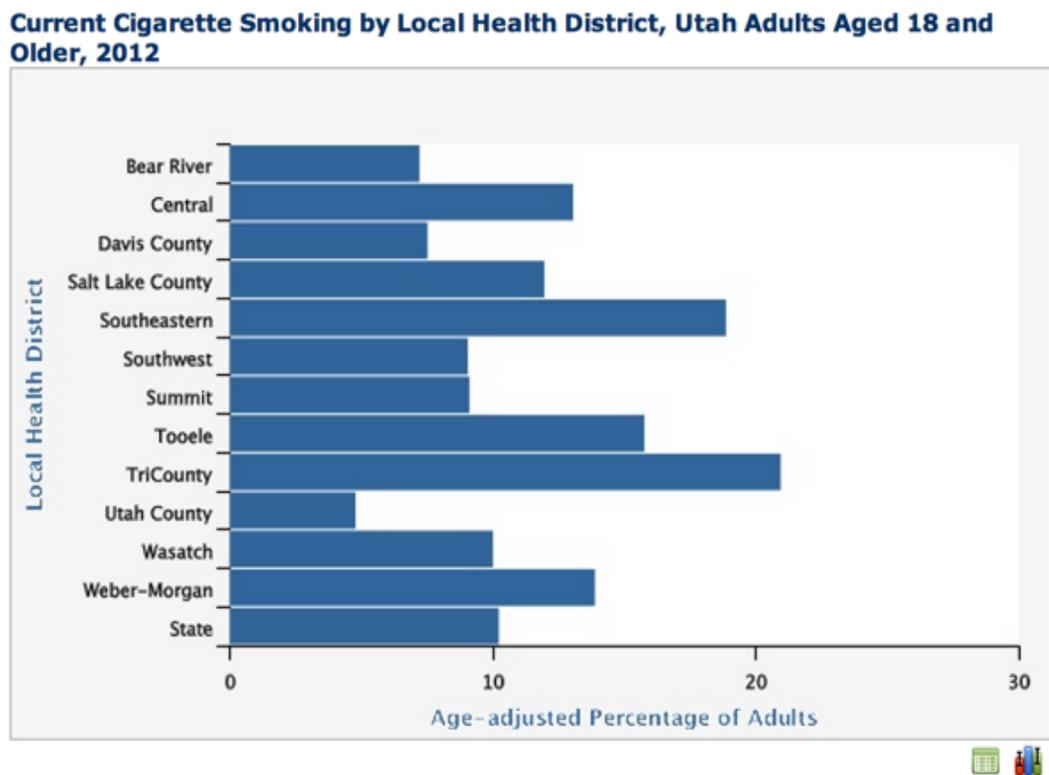
Approximately 85% of Utah's prison population has a substance abuse problem related to their criminal behavior (Utah Substance Abuse Advisory Council, 2014). Historically there has been a failure to identify these offenders before they get to prison, which equates to missed opportunities to provide treatment and break the criminal cycle.

Because of limited resources, only 25% of inmates that need treatment can receive it due to limited resources.

DORA changes how Utah handles offenders with a drug-related problem. Offenders with a drug problem are identified which provides judges with more information, options and resources at sentencing. Judges are not required to mandate treatment; they may lock up some offenders to receive treatment while others will obtain community-based sanctions and treatment services. Such drug treatment has been shown to be effective. According to a 2004 study of Utah State Prison's Con-Quest Residential Substance Abuse program, 95% of offenders who completed the program and were released from prison had not returned 18 months later. A study on Salt Lake County Drug Court graduates showed that 60% were arrest-free 18 months after completing the program. Only 22% of those who did not receive treatment were arrest-free (Utah Substance Abuse Advisory Council, 2014). The benefits of drug treatment have been shown in other states as well—the chances of a parolee reoffending decrease by 72% if the offender completes a substance abuse program while incarcerated (CA Department of Corrections and Rehabilitation, 2010). Proactively offering drug treatment programs has been shown to keep offenders from returning to prison and potentially break the criminal cycle.

Substance abuse can range from tobacco use to abuse of prescription and non-prescription drugs. Tooele County’s smoking rates for the past 5 years have consistently exceeded the rates for the state of Utah (Table 2.3) and fatal and nonfatal overdoses from prescription pain medications have increased in recent years in Utah (TCHD, 2012). Fifteen percent of Tooele residents over 18 reported that they were smokers, the third highest rate for health districts in Utah as shown in Figure 2.3.

**Figure 2.3**



Source: Utah Department of Health, IBIS, 2012

**Table 2.3** Cigarette use/rate\* in Tooele County, Utah, 2006-2010

Year	Tooele	Utah
2006	17.7	9.5
2007	16	11.2
2008	12.4	9.1
2009	12.2	9.5
2010	13.5	8.8

\* Rate per 100 persons; Source: IBIS, 2010

In 1995, Tooele County established a Mental Health-Substance Abuse Advisory Council. The council has advisory authority for providing Tooele County's mental health and substance abuse programs. It consists of eleven members appointed by the Board of County Commissioners. VMH offers substance abuse counseling including programs such as Prime for Life® (Driving Under the Influence (DUI) classes). Prime for Life® is an evidence based, risk reducing drug and alcohol education program. Many states, including Utah, require Prime for Life® education following charges related to DUI's, minors in possession of drugs/alcohol and some drug charges. Prime for Life® education is also used for minors using or in possession of alcohol/drugs to retain their driver's license (Prime for Life.org, 2014). Other options for counseling include both adolescent and adult substance abuse groups and counseling at Aspen Ridge Counseling Center, Juniper Family Counseling and Bonneville Mental Health in Tooele.

### Barriers to Receiving Care

It is important to note that Tooele is the second largest county in Utah in square miles and has a population of less than 60,000. Tooele County has 8 people per square mile compared to Salt Lake County with 1,396 per square mile. Due this geographic

dispersion, transportation is a key issue since potential clients may have to travel many miles to reach services. Distance is noted in the Tooele County Health Improvement Plan as a significant issue/concern, namely “lack of public transportation to health care services in the county. Transportation is commonly identified as a barrier, particularly by the elderly” (TCHD, 2012, p.12). VMH currently offers a van to Grantsville twice a week to pick up clients. It is a challenge for clients such as in the Stansbury Park or Lake Point areas who rely on public transportation. The last bus into Salt Lake County leaves at 6:30 p.m. and the schedule is limited, which makes transportation challenging for individuals who do not have access to a vehicle and are seeking treatment.

### **Recommendations**

As the WHO (2013) explains, “Good mental health enables people to realize their potential, cope with the normal stresses of life, work productively, and contribute to their communities.” Involving local mental health experts in planning for a prison move is critical to success in mental health promotion, prevention, treatment and recovery.

### **Promotion**

Communicating existing services effectively to the community is important. Providing services in local schools increases awareness of programs for community children and youth, which is especially important with the anticipated increase in population due to a new prison. Working with the Tooele County School District to identify student programs aligned with the greatest mental health needs helps to promote programs such as suicide prevention and substance abuse prevention. Another

promotion strategy is collaborating with the UDOC in providing mental health resources to assist with the transition of employees and prison families to Tooele County along with providing stress-relief resources for employees with additional commute time. One way to reach out to new residents is to provide mental health resource information, such as the Tooele County General Resource Summary (Appendix E) to people who purchase a home or rent an apartment. Working with the Grantsville Senior Center to provide programs helps to improve the outreach for elderly residents. An increased focus on promotion, along with prevention, may reduce the need for treatment and recovery.

### Prevention

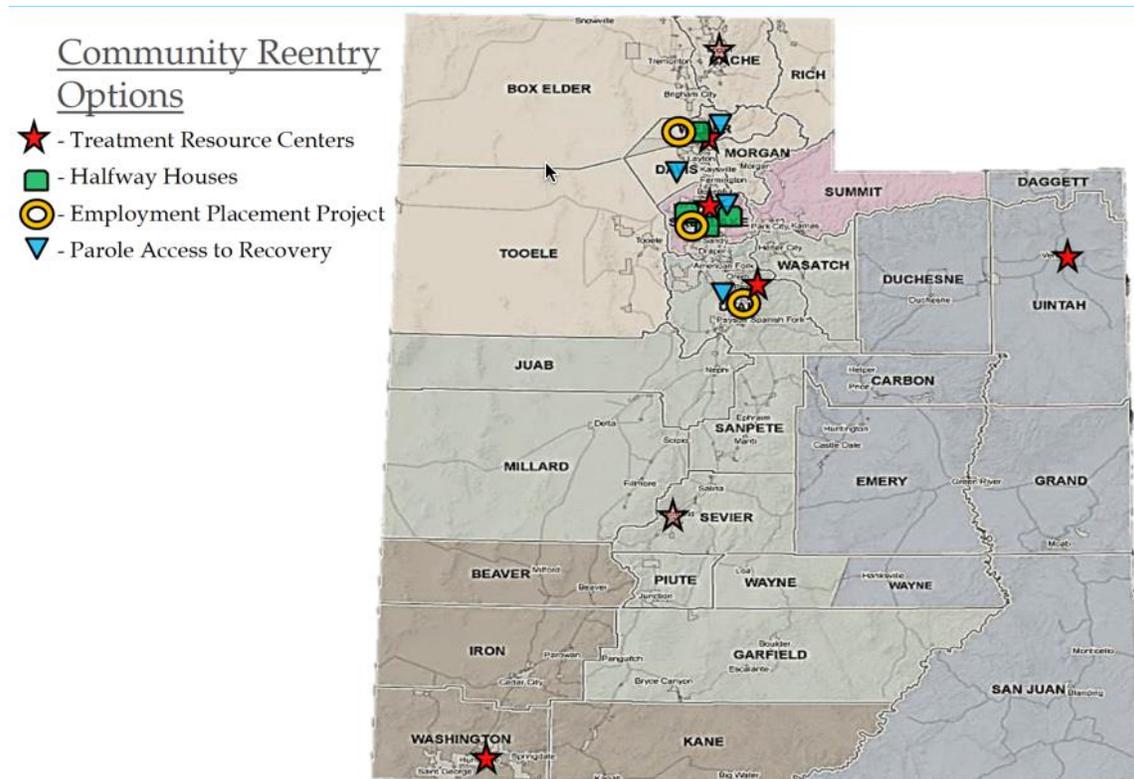
Various organizations in the community help to provide preventative mental health services to Tooele County residents. These include VMH, Tooele County School District, Tooele County Mental Health-Substance Abuse Advisory Council and Tooele County Detention Services. Continuing with the existing collaborative efforts is key to a successful mental health strategy. Many prevention programs are in need of additional funding to increase the community outreach and to meet existing demand for services. Identifying ways to fund these services include soliciting state and federal grants including the Bureau of Justice. Requesting needed financial support from the legislature is another way to help minimize the impact of the prison move transition. Expanding existing outcome-based prevention programs, such as QPR for Suicide Prevention and the CIT to assist in communicating with the mentally ill would help to reduce mental health issues. Ensuring the crisis hot line is adequately funded and staffed to meet demand is another prevention method. Tracking mental health issues, research and

programs will help to identify local mental health risks, which programs are most successful based on identified outcomes and what is the latest data related to mental health trends.

### Treatment and Recovery

Currently, there are gaps in availability for mental health treatment and recovery. The Community Reentry Options in Tooele County are limited, as shown in Figure 2.4 (PEW Charitable Trust, 2014).

**Figure 2.4** Community reentry options, Utah, 2014



Courtesy of the PEW Charitable Trust, 2014.

Another gap is access to qualified individuals to provide services. As mentioned previously, there is currently one licensed psychiatrist in Tooele County, who is transferring out of the area. There needs to be focused recruiting to replace this role. Determining gaps in access to treatment programs, such as substance abuse counseling and addiction programs is a way to proactively establish a plan for increased treatment and recovery. Having sufficient public psychiatric beds for inpatient treatment is another mental health need. Making broader use of court-ordered outpatient treatment to support at-risk individuals with severe mental illness is one way to provide improved access to treatment. A focus on promotion and prevention may decrease the need for treatment and recovery—currently, there is more demand than availability of mental health services.

**Summary of Recommendations:**

Promotion	Prevention	Treatment & Recovery
<p>Work with the Tooele County School District to identify student programs aligned with the greatest student mental health needs</p> <p>Provide mental health resource information to new residents who purchase a home or rent an apartment</p> <p>Work with the Grantsville Senior Center to provide programs</p>	<p>Brainstorm with Community organizations including VMH, Tooele County School District, Tooele County Mental Health-Substance Abuse Advisory Council and Tooele County Detention Services to work collaboratively towards better mental health for all</p> <p>Estimate needed funding based on identified gaps and find ways to fund additional program</p>	<p>Work with VMH to determine gaps in existing care, such as access to substance abuse counseling and addiction programs</p> <p>Recruit to replace the one licensed psychiatrist in Tooele County who is transferring out of the county</p> <p>Assess to determine if there are sufficient public psychiatric beds to meet the need for inpatient treatment</p>

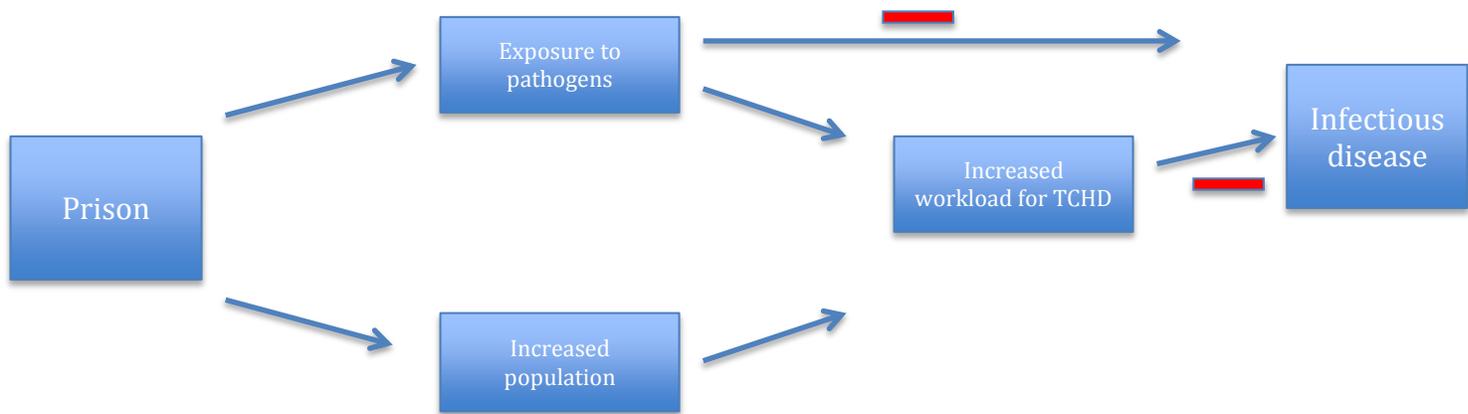
VMH: Valley Mental Health; UDOC: Utah Department of Corrections; QPR: Question, Persuade, Refer

**Mental Health Recommendations continued:**

Planning Phase	Construction Phase	Operation Phase
<p>Collaborate with the UDOC for employees and prisoner families who may be relocating to Tooele County</p>	<p>Expand existing outcome based prevention programs, such as QPR for suicide prevention along with the crisis hot line</p> <p>Create plan for ongoing mental health tracking, research and programs</p>	<p>Push for increased access to treatment for individuals with severe mental illness</p>

VMH: Valley Mental Health; UDOC: Utah Department of Corrections; QPR: Question, Persuade, Refer

### 2.3 Infectious Disease



#### **Introduction**

Over the last 30 years, the size and scope of the United States penal system has increased dramatically; the number of incarcerated individuals has increased almost eightfold since the 1960's (Pettit & Western 2004). By the end of 2012 approximately seven million people (or 1 of every 33 American adults) that were either in jail, prison, or on parole were supervised by the adult correctional systems (Bureau of Justice Statistics, 2012). Criminal justice practitioners and scholars continue to debate the revised sentencing policies that are directly related to the demand for new prisons.

Infectious diseases (also known as communicable or contagious) are caused by the entrance into the body of organisms or diseases caused by organisms such as bacteria, viruses, fungi, or parasites that can be transferred from person to person. These types of organisms may present interesting challenges relative to disease control from a public health perspective. Other factors to consider that may increase the risk of infection in

prisons include mode of transmission specific to the disease in question, overcrowding, ineffective sanitation, nutritional deficits, and unprotected sexual activity.

### **Assessment**

Numerous offenders pass through the prison system. Many enter the prison with no prior health care provider or access. Most of these offenders are released within a short period to interact with the general public (Skolnick, 1998). Compared with the general public, newly incarcerated inmates have an increased prevalence of human immunodeficiency virus infection, hepatitis B virus infection, hepatitis C virus infection, *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, *Treponema pallidum* (syphilis), and *Mycobacterium tuberculosis* infection (Hammett et al., 1997). These are important infection-control challenges within the correctional setting.

Prisons are constructed to maximize public safety for the prisoners and prison staff. They were not constructed to minimize the transmission of disease. Transmission of an infectious disease increases with the increased number of prisons and delays in medical evaluations. Prisoners are frequently transferred from one location to another which presents challenges and complications in interrupting the chain of transmission. The Utah State Prison (Draper) is no different.

Prisons frequently receive prisoners with compromised health due to illegal behaviors that have adverse health consequences. In most cases the source is abuse of illicit drugs. Approximately 80 % of inmates have a history of use or abuse of mind-altering substances (CDC 2001).

The abrupt transfer of inmates from one location to another further complicates the diagnosis of infection, interruption of transmission, recognition of an outbreak, performance of a contact investigation, and eradication of disease. As an example, 15 % of all individuals infected with HIV and approximately 40 % of all individuals infected with hepatitis C passed through correctional institutions (Massoglia 2008, page 58).

Estimates from the National Correctional Commission Report (2002) are consistent with Travis et al 2001 finding high prevalence rates of infectious disease in correctional institutions. These high rates of infectious disease can be related / correlated to the close living conditions of prisoners and high levels of intimate contact which may serve as vehicles of disease transmission. Farmer (2002) found evidence suggesting several outbreaks of TB in the United States were traced to correctional facilities.

The Survey of Inmates in State and Federal Correctional Facilities in 2004 reported on state and federal prisoners who reported a current medical problem, a physical or mental impairment, a dental problem, or an injury since admission. The survey results showed that almost all state and federal inmates reported being tested for TB (95% and 96%, respectively) (Bureau of Justice Statistics, 2004, p. 20). The majority of inmates in state and federal prisons had received a medical exam, blood test, or TB test prior to prison admission. In addition they were also test for HIV and sexually transmitted infections (Bureau of Justice Statistics, 2004). This is consistent with the screening process at the Utah State Prison.

The Pennsylvania Department of Corrections has implemented plans for hepatitis C virus infection testing and treatment program. “All prisoners, regardless of test result, are provided with risk reduction education and counseling” (Larney et al., 2014).

Recommendations have been proposed for hepatitis C screening for all admissions to correctional facilities. In addition, the relationship between public health departments and the treatment in prisons should be explored. The public health departments should be informed of prisoners released with active hepatitis infections.

Influenza outbreaks in prison are not uncommon given the low vaccination coverage among inmates. Inmates are generally isolated and staff members are excused from work until they are afebrile (Approximately 24 hours). Facilities/areas are closed to new admissions and transfers to prevent further transmission/exposure to the disease. Staff members are also educated to limit their exposure to community members during infectious stage (CDC 2011). Transmission of disease between correction staff members, inmates, and the community can be reduced with improved vaccination coverage, thereby reducing the risk of developing disease.

Female inmates in both state and federal prisons were more likely to report having a current medical problem than male inmates. Arthritis, asthma, and hypertension were the most commonly reported medical problems among female inmates. Among females, 86% of those in state prisons and 78% of those in federal prisons reported receiving a pelvic exam (Bureau of Justice Statistics, 2004, p. 22).

Approximately 4% of state and federal inmates reported they were pregnant at the time of admission. Of those in state prisons who reported they were pregnant at admission, 94% received an obstetric exam. More than half (54%) received some type of pregnancy care (Bureau of Justice Statistics, 2004, p.22).

Male inmates were more likely to be accidentally injured or injured in a fight. Among state inmates, 17% of those age 24 or younger and ages 25-34 reported being

injured in a fight compared to 13% of those age 45 or older (Bureau of Justice Statistics, 2004, p. 3).

Correctional employees may be exposed to blood-borne pathogens during medical, housekeeping, and laundry duties. There have been some incidents where some inmates have intentionally exposed employees to potentially infectious materials by throwing body fluids ("gassing") (Bureau of Justice Statistics, 2004). Ways of minimizing this risk include to vaccine preventable diseases is through a vaccination policy, education on the use of personal protective equipment, environmental controls to decrease the likelihood from sharp injuries (penetrating stab wound from a needle, scalpel, or other sharp object that may result in exposure to blood or other body fluids), and a post-exposure prophylaxis program (Department of Labor, Occupational Safety and Health Administration, 1991 and CDC, 2005).

Most of the findings in the literature review did not find significant infectious diseases outbreaks in prisons that frequently transferred to surrounding communities. Since the prisoners are confined to a specific area the containment of an infectious outbreak can be controlled by implementing disease control measures and guidelines from the Centers for Disease Control and Prevention or state and local guidelines. Prisons are required to report all diseases that fall under the legislative reportable disease regulations and local health department can provide assistance in a disease outbreak within the prison.

Prisoners who are admitted with or become infected with active TB while in prison are monitored daily for intake of medication and isolated if necessary. TB is a reportable disease in the United States; therefore, documentation of the infections is

recorded by the respective state health department. If a prisoner is released with active TB the health/medical officials notify the local and state health department where the ex-inmate will reside (in-state or out-of-state). The local health officials will then monitor the ex-inmate daily to insure intake of medications and if limited exposure to communities is warranted. State and local health departments are also notified of the release of prisoners with latent TB. The state and local health departments are not required to monitor ex-inmates with latent TB, only to update records of release and residency (UDOH, 2014).

The Utah State Prison has the capacity and ability to handle infected inmates, to provide services for physical health, mental health, and substance abuse problems of inmates. The Prison also is equipped to handle chronic diseases and dialysis (Utah State Prison, 2014).

## **Recommendations**

### Planning Phase

The prison healthcare staff is prepared to handle the majority of cases of infectious disease within the prison walls and calls for assistance of the county health departments only occasionally each year. Even so, it is recommended for UDOC and TCHD to communicate investigations protocols to each other, so that outbreak investigations, when they occur, can effectively and efficiently halt the transmission of disease and implement control measures.

### Construction Phase

It is recommended that the Utah State Prison implement a rapid screening and treatment policy for detectable infectious diseases as part of their disease control measures/plan. Although the literature suggests that no significant disease outbreaks have transferred into the community, this is sound public health practice in controlling most infectious diseases such as STIs from transferring into the community. Secondly, since it is the responsibility of the county health department to conduct environmental inspections of the prison facility, we recommend specifically training an Environmental Health Specialist on prison inspections.

### Operation Phase

Based on the research conducted by this HIA, the TCHD would not be significantly impacted by the relocation of the Utah State Prison relative to infectious disease investigation and control. Although the resources are limited within TCHD, the evidence found does not support an increased incidence of infectious disease outbreaks. Recommendation is to follow current outbreak investigation protocols as set by the UDOH.

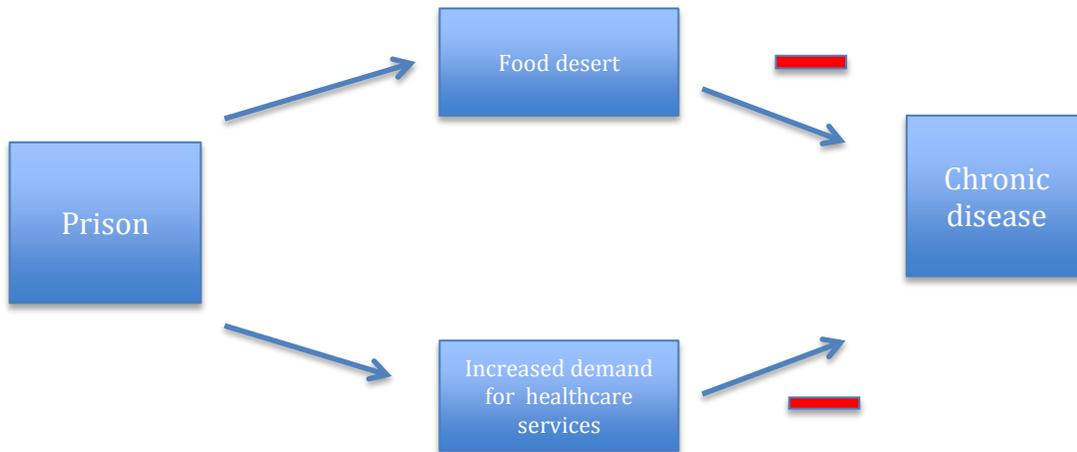
Although the literature suggests that no significant disease outbreaks have transferred to the community, this is sound public health practice in controlling most infectious diseases such as STI's from spreading.

**Summary of Recommendations:**

<b>Planning Phase</b>	<b>Construction Phase</b>	<b>Operation Phase</b>
Collaborate with the UDOC and TCHD to share disease investigation protocols	Train Tooele County Environmental Health Specialist to conduct prison health inspections	Follow current outbreak investigation protocols as set by the UDOH. Investigate the feasibility of telemedicine for Tooele County residents

UDOC: Utah Department of Corrections; TCHD: Tooele County Health Department; UDOH: Utah Department of Health

## 2.4 Chronic Disease



### **Introduction**

A study conducted by Binsanger, Krueger and Steiner (2009) among prison inmates (n=14,373) found that the prevalence of many chronic medical conditions was higher in this population, both male and female, than in the non-institutionalized population (n=76,597), even after adjusting for a range of socio-demographic factors and alcohol consumption. The study found that, although inmates had lower odds of obesity and comparable odds of diabetes, angina and myocardial infarction (MI), they had higher odds of hypertension ((odds ratio) OR=1.17), asthma (OR=1.34), arthritis (OR=1.66), cancer (OR=4.82), cervical cancer, hepatitis (OR=4.23) and mental illness.

### **Assessment**

Research has shown that the health needs of prisoners are much greater than those of the general community. Their health needs, health promotion and chronic disease management place a high demand on services in the community. Prisoners also have high

rates of unemployment and homelessness, both before and after incarceration, which leads to poor utilization of healthcare services when they are outside the prison system (Condon, Hek & Harris, 2007). They bring with them conditions that limit their ability to become productive participants in the community to which they are released, placing stress, not only on health care systems, but also on their families.

Prisoners receive healthcare while incarcerated; therefore, this section summarizes the implications when prisoners, many of whom are socially and economically disenfranchised re-enter the community. Following their release, few ex-prisoners suffering from chronic diseases receive discharge planning (primary care referrals, health insurance or medications), and are subsequently non-compliant with treatments and medications. Many of them also have different and competing priorities, such as housing, finding employment, attending parole meetings and re-establishing relationships with children and family. Thus, they fail to engage in primary medical care, choosing instead to utilize the more costly acute-care services such as the emergency department and hospitals (Wang, Hong, Samuels, Shavit, Sanders & Kushel, 2010).

Studies suggest that the two-week period following release is a critical period for formerly incarcerated people. During this time, relapse into substance abuse is common, glycemic control is challenging for diabetics and hypertension is often uncontrolled (Fox, Anderson, Bartlett, Valverde, Starrels & Cunningham 2014). Recently released inmates also have higher rates of death than the general population. Based on these studies, it appears that there is a need for Tooele County to ensure that there is adequate prior planning for re-entry of prisoners into the community, in order to minimize their physical and mental disability and reintegrate them into society.

Changes in sentencing guidelines, mandatory minimum sentences, “three strikes” sentences, felony, drug and life sentences without parole means that there is a growing population of older inmates, many with chronic conditions that require costly care. Inmates generally experience accelerated aging due to various factors such as drug abuse and limited access to preventive care, and a 50-year-old inmate may have a physiological age 10-15 years older (Mitka, 2004). These inmates also put more demand on the health care system to manage their care, including introducing hospices and long-term care centers.

### Food Deserts

A food desert is defined as “an impoverished area where residents lack access to healthy foods” (Rogers, 2014). Food deserts are found in both rural and urban areas and are associated with complex geographical and socioeconomic factors, as well as poor diet, chronic conditions such as overweight and obesity, as well as cardiovascular disease, diabetes and kidney failure.

Personal preference generally influences food consumption, but lack of access to nutritious foods as well as a lack of education about healthy food choices also plays a big role in determining diet. Food deserts in some rural and urban areas are characterized by a high number of convenience stores, which sell high-calorie, low-nutrient food products at relatively high prices, and few or no supermarkets where one would find healthier food choices such as vegetables, fruits and whole grains at more reasonable prices.

Given the relationship between chronic disease and food deserts, the potential for eventually having a large number of people with these diseases in the community, and the

environmental changes the prison will bring to the area, it is worth examining how the presence of the new prison will affect the Tooele County foodscape.

## **Recommendations**

### Planning Phase

In states with expanded Medicaid, the ACA expands Medicaid eligibility for low-income adults and allows eligible inmates to apply for coverage while in prison. Programs that assist prisoners with navigation can enhance enrollment in Medicaid while proper case-management and transitional care can improve health care access for this vulnerable population. Authorities need to assess the capacities of long term care facilities in the area to take care of aging, infirm and disabled prisoners and/or ex-prisoners, many with challenging chronic conditions.

### Construction Phase

Social conditions such as post-incarceration homelessness need to be addressed in order to optimize health outcomes. Shelters, halfway houses and housing assistance may have to be provided to those with unstable housing situations who need a safe place to store medications such as insulin (Fox et al., 2014). Post-incarceration clinics should be established to improve ex-prisoners' timely access to health care and provide them with a medical home. The clinics should offer primary care and referrals to social services in order to ensure continuity of care and optimize health outcomes.

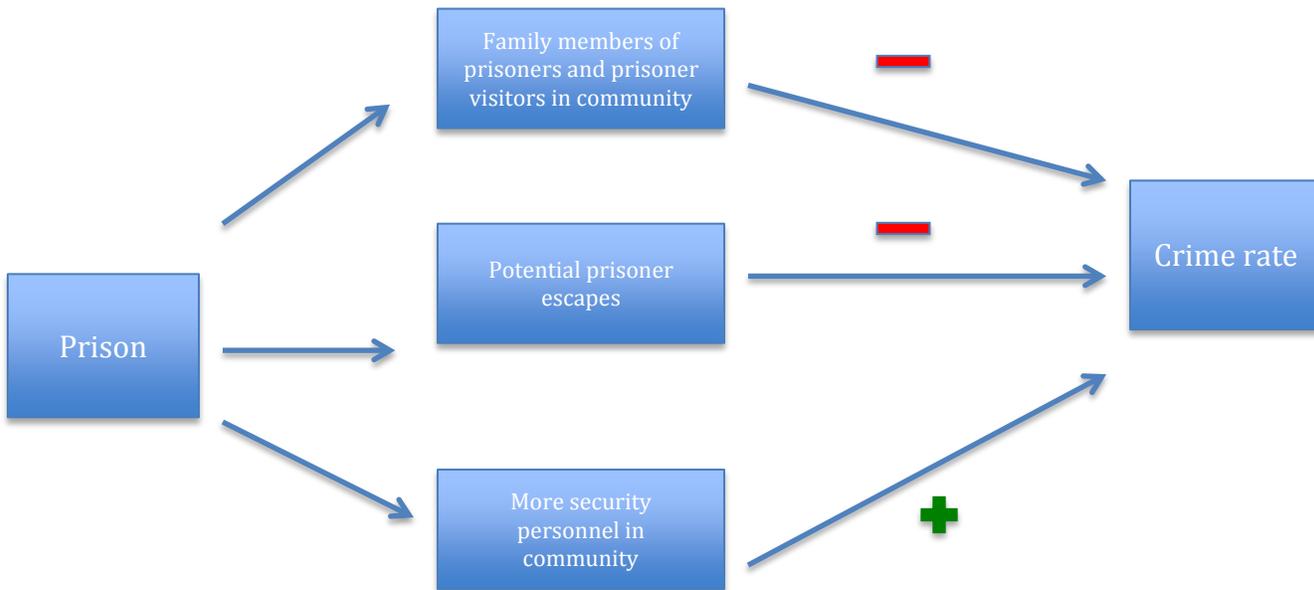
### Operation Phase

Providing health education programs in prisons would benefit inmates by giving them tools that they can use both in prison and once released. It also benefits the prison through savings in healthcare, and the community at large due to the reduced need for health care upon their release.

### **Summary of Recommendations:**

<b>Planning Phase</b>	<b>Construction Phase</b>	<b>Operation Phase</b>
Monitor the Medicaid expansion situation in Utah for potential Medicaid coverage of released prisoners  Establish programs that provide case management and transitional care  Assess capacities of long term care facilities in the area	Plan for shelters, halfway houses and housing assistance that released prisoners can utilize, in order to reduce the potential for homelessness	Provide health education programs that give prisoners the tools they need to deal with their conditions while in prison and after release

## 2.5 Crime Rate



### **Introduction**

State prison facilities confine those convicted of crimes in an attempt to maximize the safety of community members, but whether a prison facility imposes unintended consequences on its host community is unknown. With regard to crime rates in particular, the evidence that a prison facility can influence crime rates in the host community is inconclusive. It is thought that urban communities may be more heavily affected by criminal activity from released prisoners than are non-urban communities (Raphael & Stoll, 2004).

Some studies suggest that host communities have high crime rates compared to locations without a prison facility while others suggest this is not the case. One study found higher crime rates in a host community compared to control sites within Washington State, but concluded that correlation does not equal causation and alternative

explanations should be explored (Farrington & Parcells, 1991). Moreover, one study reported that seven host communities in California had lower crime rates than 15 other communities with similar characteristics, but without a prison facility (Hawes, 1985). This study was limited in that it assessed only one year of data, 1980, and therefore could have missed significant fluctuations in crime rate. Another study assessed the effect of a prison expansion on crime patterns in a rural county in Northern California, a community similar to Tooele County (Daniel, 1991). This study compared adult and juvenile crime activity in the host community to that in four other communities with similar geographic, social, and economic characteristics. Crime rates varied from approximately 30 to 40 crimes per 1,000 population across the ten years of observations. Compared to control communities, the host community showed no significant change in crime rates following the prison expansion.

Although there is no conclusive empirical evidence regarding community crime rates in host communities, data on host community perceptions of potential relocation are more consistent. Potential host community members tend to fall victim to the Not In My Backyard (NIMBY) syndrome (Martin, 2000). That is, community members recognize and support the need for prison relocation, but want it built somewhere else. While there are many underlying reasons for the NIMBY syndrome, family safety, crime rate, and law enforcement capabilities are key factors. A comprehensive study by Martin & Myers (2005) found that community perception regarding crime and safety varied depending on proximity to prison facility. Those who lived closer to the proposed site reported significantly more safety concerns than those living farther from the facility. Additionally, the host community members feared potential prison visitors and the effects

they would have on the local community. In a study that surveyed 147 community members already living in a host community in British Columbia, it was found that almost all people living within a two-kilometer radius of the prison felt negatively about the facility (Ekstedt, 1996). However, 83% of the respondents reported that they felt more secure living near a prison, and they did not feel at increased risk of victimization. The results of this study contradict what many community members perceive will occur following prison relocation to their community. A more recent study corroborated Ekstedt's results (Abrams et al., 1992). In this study, prison facilities from across the country that were built six to ten years prior to the study were selected to participate. These facilities were thought to represent a range of counties within the U.S. Up to 75% of the community members surveyed believed their community was not adversely affected by the presence of the prison facility.

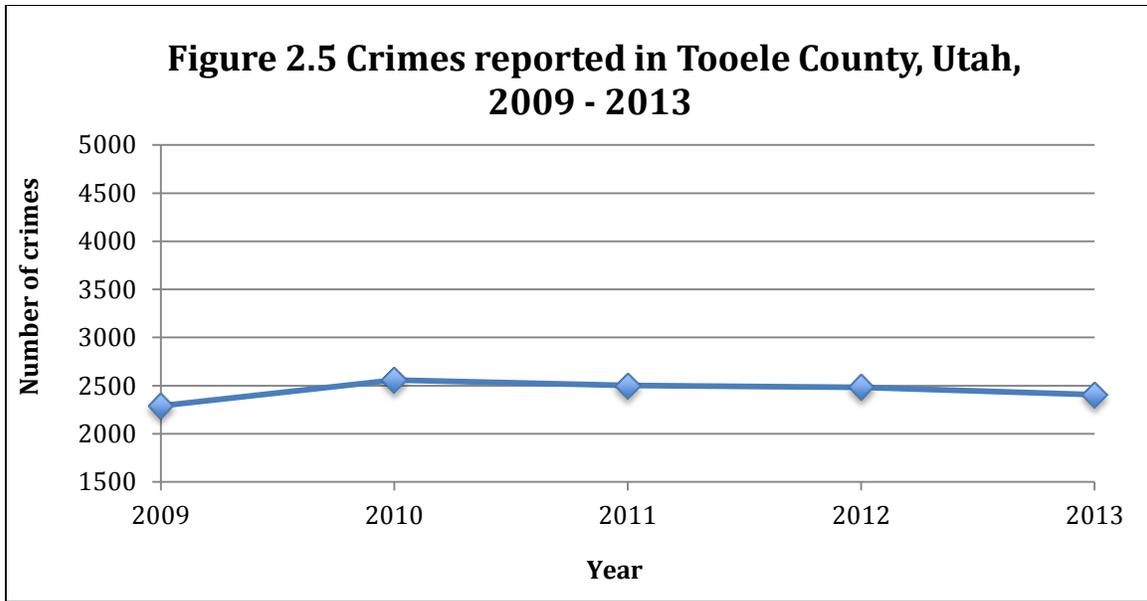
Although many communities have the NIMBY mindset, some communities have preference over which types of prison facilities come to their area. Communities in North Carolina preferred to have maximum-security prisons in their communities versus other facilities where inmates have the potential to interact with residents (Hoyman, 2002). The risk associated with maximum security prisons was perceived to be less than for other types of facilities because of heightened security measures like wired fencing, armed guard tower, and a larger buffer area.

### **Assessment**

The number of crimes in Tooele County, as reported by the Tooele County Sheriff's Department, has been fairly stable from 2009-2013, with about 2,500 crimes

each year Approximately 43 crimes / 1,000 population) (Figure 2.5). In the five-year period, the majority of crimes have been related to arrest warrants (12.0%), animals (10.9%), larceny (8.2%), traffic offenses (7.7%), and property damage (6.5%).

To our knowledge, there are no substantive data to support the claim that relocating the prison to Tooele County will increase overall crime rate and jeopardize the safety of the host community's members. The residents of Tooele County, however, feel otherwise. When asked about their top areas of concern for a new prison, the main concern listed was crime prevention (Table 1.4). One question in the community survey asked, "Would you fear for your safety?" More than 30% of participants said they would, over 50% said they would not fear for safety, and 20% were unsure. Similar to the Martin & Myers's 2005 study, this discrepancy is most likely explained by distance from the facility. Although we do have supporting empirical data, responses to the open-ended questions suggest that community concerns about the potential prison relocation with regard to crime and safety would vary considerably depending on the exact prison location.



Source: Tooele County Sheriff's Department, 2014

## **Recommendations**

### Planning Phase

Crime and safety were one of the top concerns of participants in the Tooele County Community Survey. Although the previous literature suggests that crime rate will not increase after relocating a prison, efforts will have to be made in order to assure the community members they will remain safe. During the planning phase we recommend UDOC and Tooele County Sheriff's Department discuss a plan for communicating with the community throughout both the construction and operation phase of the prison.

### Construction Phase

Host community acceptance is a key component to the successful transition of a new prison site. While the prison is in the construction phase we recommend that Tooele County Sheriff's Department and UDOC meet with community members to discuss the

training and capabilities of their staff members. Prisoner escapes, although rare, can happen. Letting the communities members know what steps these organizations take to ensure the safety of the host community is essential to community acceptance. UDOC should also provide the community with empirical data on crime rates around prisons. The community may be more accepting if they see evidence from scientific literature.

### Operation Phase

The potential for increased crime rate in Tooele County as a direct effect of prison relocation does not seem likely given results from the literature. However, the literature is not conclusive, and there is potential for crime rate to increase at some point following during the relocation process. We recommend that crime rate data be monitored continually and adjustments be made as necessary in accordance with sheriff's department protocol. Although relocation of a prison facility is often received by host community members with intense opposition and fear, results from previous studies suggest that these reactions may diminish during the operation phase of the prison. Therefore, it is recommended that decision makers engage in comprehensive and consistent communication with the host community during the operation phase.

**Summary of Recommendations:**

Planning Phase	Construction Phase	Operation Phase
<p>Train staff members that will be involved in the relocation project to properly address questions and concerns from community members</p> <p>Develop standard operating procedures for handling potential community conflict during all phases of the relocation</p>	<p>Communicate to public information including the protocol for inmate release after sentencing and protocol for handling prisoner escapes</p> <p>Hold host community meeting with Tooele County Sheriff’s Department and UDOC to discuss the training and capabilities of prison employees and local law enforcement officers</p> <p>Provide the community members with data from the literature about the possible effects prison facilities typically have on host communities</p>	<p>Continually monitor crime rate data and make adjustments as necessary in accordance with sheriff department protocol</p> <p>Engage in comprehensive and consistent communication with the host community</p>

UDOC: Utah Department of Corrections

## 2.6 Employment



### **Introduction**

The association between employment and human health is well established. Research shows that unemployment can have negative effects on health, including mental well-being (Murphy & Athanasius, 1999), overall mortality, and mortality due to cardiovascular disease and suicide (Jin et al., 1995), among others. While there is widespread belief that the construction and operation of a new prison will lead to reductions in unemployment and ultimately improvements in health, especially among non-metro communities, data supporting this claim is sparse.

In the past three decades there has been a disproportional distribution of new prison facilities with regard to geographic location. From 1992 to 1994, 83 state, federal and private prisons were built in rural/non-metro communities and 56 opened in metro areas (Beale, 1996). From 1990 to 2000, 69% of the 274 new state prisons were opened in towns of  $\leq 10,000$  people (Besser & Hanson, 2004). This is not a coincidence. Many

rural communities bid and compete for new state and federal prisons because of the prospect of future employment opportunities, and ultimately, economic development. Some rural communities have reported a modest increase in employment rates after a prison relocated to their area, while others report no difference when compared with rural areas without a prison facility.

In addition to the potential jobs needed to operate the prison (correctional officers, medical employees, etc.), the construction phase may offer opportunity for employment. In one study by Abrams (1992), employment increased mostly during the construction phase of prison relocation while average household income increased during the operation phase of the relocation. While this outcome is possible, and some local contractors may receive contracts, the largest and most lucrative contracts tend to be awarded to out-of-area contractors, who are more experienced with large projects such as prison construction. This scenario occurred in Fremont County, a county of approximately 50,000 people in south-central Colorado (Blankenship & Yanarella, 2004).

While host communities may benefit from a new prison facility via increases in sales through tax revenue generated from population influx, it is unclear how many people move to a host community because of the new prison. A study of a host community in Missouri found that 68% of prison jobs were filled by individuals living outside the host county (Thies, 2001). It is unknown whether the 32% who lived in the host community relocated when the prison was relocated or if they had already resided in the host community. However, a study in Colorado found that employees would rather commute from urban regions than live in a completely rural area where the prison facility

is located (Beale, 1993). Another study on the economic changes associated with a new prison (Besser & Hanson, 2004) found that new state prison communities experienced less growth than non-prison communities. This study compared the average change in economic development in 176 host communities with 19,253 matched non-host communities from pre-prison years to post-prison years (10 years later: 1990-2000). Host communities saw less increase in non-agricultural employment, retail sales, and average household wages than non-prison communities. While host communities experienced increases in overall unemployment and poverty, they had a higher increase in public sector employment compared to non-host communities.

Hooks et al., (2004) completed a similar study over a longer period of time and found comparable results. The authors assessed average annual employment growth in both rural and urban communities with a new prison facility from 1969 to 1994. Over the 25-year period, employment rates grew more slowly in prison communities than in non-prison communities. These results were found in both rural and urban communities.

## **Assessment**

The unemployment rates throughout Utah have been in flux over the past few decades. Rates were as low as 2.6% in 2007 and dramatically increased to >8.0% in 2010. Although unemployment rates have not reached the 2007 nadir, rates have steadily decreased since 2010 and in 2013 fell below 5%.

As of July 2014, the unemployment rate in Tooele County was 4.7%, slightly above the state average of 3.9%. According to the Governor's Office of Planning and Budget 2012 Baseline Projections, in 2010 Tooele County had a total workforce of

22,002, with local, state, or federal government (21.89%), retail (10.35%), and manufacturing (7.19%) representing the bulk of the economy. According to the Tooele County Chamber of Commerce Resource Directory (2013), the USR Corp and Wal-Mart Logistics are the largest private-sector employers in the county, with over 500 employees each. Tooele County School District and Dugway Proving Ground are the largest public-sector employers, with over 1000 employees each. Employment opportunity is projected to increase 32% by 2020 for a total workforce of 29,046.

The current Utah State Prison employs approximately 2,220 individuals, including 62 medical employees and 771 correctional employees. Other types of employment include administrative and support staff. While many employees live either in Utah County (n=345, 45%) or Salt Lake County (n=342, 44%), only 19 (2.5%) live in the city of Draper, and 9 live in Tooele County. Data has not yet been collected on the number of current employees that will commute to the new prison location from their current town or move to the new prison location and continue to work. However, given the distribution of residencies of current staff, it is reasonable to assume that many of the current employees would commute to Tooele County and few employment opportunities would be available to Tooele County residents.

Community survey participants who believe relocating the prison to Tooele County would increase local businesses outnumbered the participants who thought it would have an adverse effect by 2 to 1 (40% to 17%). It is possible that there would be an increased need for hotel/motel establishments if families of prisoners visit from areas outside of Tooele County. Currently there are 399 total beds available within all of the motels/hotels in the county.

The magnitude of potential effects pertaining to employment can vary greatly, depending on the exact location of the project and whether or not the current employees of the current Utah State Prison continue to commute to work if the prison is relocated to Tooele County. However, the majority of data from previous literature on areas similar to Tooele County found little to no increase in employment following prison relocation. Therefore, the likelihood of overall health improving as a result of employment growth is minimal.

## **Recommendations**

### Planning Phase

While a prison facility may be a viable mode for increasing rural economy, the literature does not provide substantial data to support this claim. One explanation to the low impact on employment is that rural community members may not be qualified for some of the positions available at the new prison. Therefore, it may be advantageous for UDOC and TCHD to collaborate with high schools and higher-education organizations to provide the training needed to fill potential employment openings at the prison.

### Construction Phase

A study of current Draper Prison employees is highly recommended in order to get a valid estimate of the number of people who will continue to work at the prison and will commute to Tooele County. Once Tooele County has a better idea of the quantity of jobs and the type of jobs will be available, it can work with UDOC to actively recruit local residents for these positions.

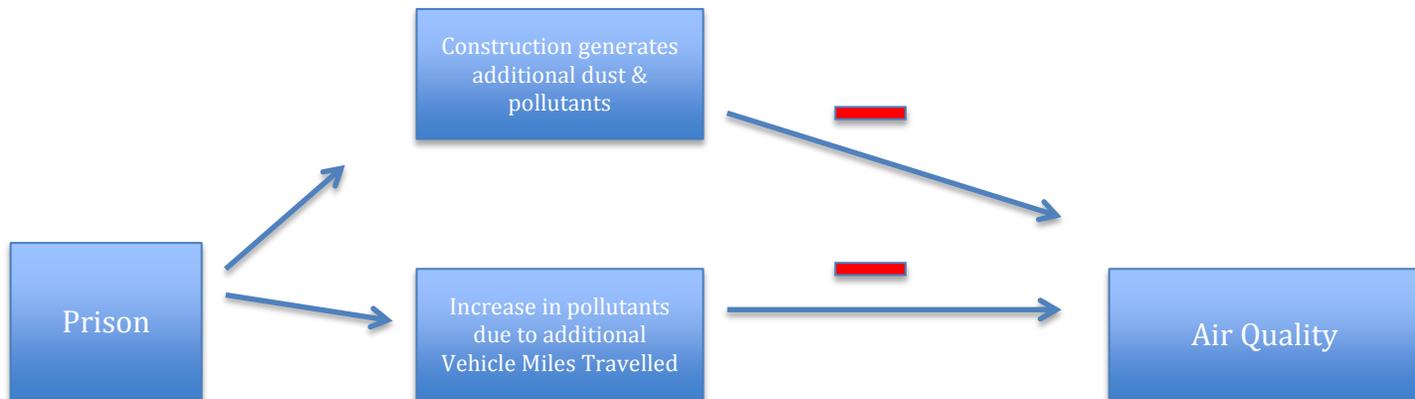
### Operation Phase

According to previous literature, many communities are in favor of building new prison facilities in their backyard because of the potential gains in employment. Citizen opposition may intensify, however, if increases in employment rates and local economy do not meet community expectations. It is recommended that the county have a plan in place to respond to such opposition.

### **Summary of Recommendations:**

<b>Planning Phase</b>	<b>Construction Phase</b>	<b>Operation Phase</b>
Begin collaboration with technical high schools and higher-education organizations to provide the necessary experience and training to local residents for potential prison jobs	Conduct a study of current Utah State Prison employees to estimate who will commute to Tooele County for work	Develop a plan to address community employment concerns

## 2.7 Air Quality



### **Introduction**

Moving forward with the prison-building project in Tooele County has the potential to impact the level of air pollutant-related health outcomes in the short term and long term. In the short term, construction activities can produce substantial amounts of pollutants that increase the health risks of local residents and construction workers. In the long term, local and regional amounts of pollutant levels will likely be impacted by the increase in vehicle miles travelled.

The Clean Air Act requires the Environmental Protection Agency (EPA) to set National Ambient (Outdoor) Air Quality Standards for six common air pollutants. These commonly found air pollutants, also known as "criteria pollutants", are found throughout Utah and the U.S. They are ground-level ozone, particle pollution (often referred to as particulate matter), carbon monoxide, sulfur oxides, nitrogen oxides, and lead. These pollutants can harm your health and the environment, specifically particle pollution and ground-level ozone are the most widespread health threats. EPA calls these

pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally based criteria for setting permissible levels (EPA, 2012). For the purposes of this HIA, the focus will be on reviewing the health effects of each criteria pollutant, discussing existing air quality conditions and the potential impact from construction and changes in vehicle miles travelled.

## **Assessment**

### Air Pollutants and Health

There are various types of outdoor hazardous air pollutants that negatively impact human health. The health effects of these pollutants can vary depending on the specific toxic, duration of exposure, concentration levels and an individual's pre-existing health status. This report examines five of the criteria pollutants, along with hazardous air pollutants related to gasoline and diesel engines. Table 2.4 lists these pollutants, a brief description of their known health effects and the population that is most at risk from exposure. Generally, short-term exposure to high ambient concentrations of these toxics can cause immediate health issues including:

- Hospital admissions for cardiovascular and respiratory diseases
- Added stress to heart and lungs, which must work harder to supply oxygen
- Damage to cells in the respiratory system (White, Schooley & Dobson, 2010)

Long-term exposure can also have permanent health effects, including:

- Decreased lung function

- Development of diseases such as asthma, bronchitis, emphysema and possibly cancer
- Shortened life span (WHO, 2003)

People most susceptible to acute health problems from short-term exposure to hazardous air pollutants include:

- Children under age 14 (their lungs are still developing)
- Individuals with heart or lung disease
- Individuals with respiratory problems such as asthma or emphysema
- Pregnant women
- Outdoor workers
- Athletes who exercise vigorously outdoors
- Elderly individuals

**Table 2.4** Health effects of air pollutants and toxins

<b>Criteria Pollutants</b>	<b>Health Effects</b>	<b>Sources</b>	<b>Population most impacted</b>
Particulate Matter (PM 2.5 & PM10)	Numerous scientific studies have linked particle pollution exposure to a variety of problems including premature death in people with heart or lung disease, irregular heartbeat, non-fatal heart attacks, decreased lung function, aggravated asthma and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.	Burning of gasoline, natural gas, coal, oil and other fuels; industrial plants; agriculture (plowing or burning fields); unpaved roads, mining, construction activities. Particles are also formed from the reaction of VOCs, NO <sub>x</sub> , SO <sub>x</sub> and other pollutants in the air.	People with heart or lung diseases, children and older adults along with healthy individuals that may experience temporary symptoms from exposure to elevated levels of particle pollution.
Ozone (O <sub>3</sub> )	Even relatively low levels of ozone can cause health effects. Breathing ozone can trigger a variety of health problems including chest pain, congestion, coughing and throat irritation. It can worsen asthma, bronchitis, and emphysema. Ozone also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue.	Chemical reaction of pollutants; VOCs and NO <sub>x</sub> .	Children, older adults and people with lung disease and people who are active outdoors.  Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. Children are also more likely than adults to have asthma.
Nitrogen Dioxide (NO <sub>2</sub> )	Current scientific evidence links short-term NO <sub>2</sub> exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects including airway inflammation in healthy people and increased respiratory symptoms in people	Burning of gasoline, natural gas, coal, oil, and other fuels; Cars are also an important source of NO <sub>2</sub> .	NO <sub>2</sub> exposure concentrations near roadways are of particular concern for susceptible individuals, including people with asthma, children, and the elderly. Individuals who spend time on or near

	with asthma.		major roadways, people living within 300 feet of a major highway are also at risk.
Sulfur Dioxide (SO <sub>2</sub> )	Short-term exposures to SO <sub>2</sub> , ranging from 5 minutes to 24 hours, have an array of adverse respiratory effects including bronchoconstriction and increased asthma symptoms.	Burning of coal and oil (including diesel and gasoline); industrial processes.	Children, the elderly and asthmatics—especially at elevated ventilation rates, such as while exercising or playing.
Carbon Monoxide (CO)	CO can cause harmful health effects by reducing oxygen delivery to the body's organs (such as the heart and brain) and tissues. At extremely high levels, CO can cause death. Exposure to CO can reduce the oxygen-carrying capacity of the blood.	Burning of gasoline, wood, natural Monoxide; gas, coal and oil.	People with heart disease who have a reduced capacity for pumping oxygenated blood to the heart, which can cause them to experience myocardial ischemia (reduced oxygen to the heart), often accompanied by chest pain when exercising.

Source: EPA 2012, Utah Division of Air Quality Annual Report, 2013.

### Air Quality in Tooele County

The Air Quality Index (AQI) is an indicator of overall air quality since it takes into account all of the criteria air pollutants measured within a geographic area (Table 2.5). It indicates how clean or polluted the air is and what associated health effects may be of concern. The AQI focuses on health effects one may experience from a few hours to days after breathing polluted air. The higher the AQI value, the greater the level of air pollution and greater the health concern. An AQI value of 100 corresponds to the national air quality standard for the pollutant, which is the level the EPA has set to

protect public health. AQI values below 100 are generally thought of as satisfactory. When AQI values are above 100, air quality is considered to be unhealthy—at first for certain sensitive groups of people, then for everyone as AQI values get higher. Below is a summary of the AQI categories, corresponding values, and impact on health.

**Table 2.5** Air quality index levels of health concern

Good	0 to 50	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	51 to 100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution
Unhealthily for sensitive groups	101 to 150	Members of sensitive groups may experience health effects. The general public is not likely to be affected
Unhealthy	151 to 200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects
Very unhealthy	201 to 300	Health warnings of emergency conditions. The entire population is more likely to be affected
Hazardous	301 to 500	Health alert: everyone may experience more serious health effects

Source: EPA, (2014). Air Quality Index: A Guide to Air Quality and Your Health.

The 2013 Air Quality Index Summary Report (Table 2.6) displays an annual summary of Air Quality Index (AQI) values for Tooele County. Based on 343 days in 2013 where AQI data was reported in Tooele County, 271 of those or 79% were good days and 60 days, 17.5% were moderate. Days that were unhealthy for sensitive groups

were 12 or 3.5%. It is important to note that further research is needed to determine the reason for outliers. The highest AQI was 137 and 90% of the days reported were at an AQI of 68 or less. The median AQI was 41.

**Table 2.6** Air quality index report, Tooele County, Utah, 2013

		Number of days at each AQI level				
County	# days with AQI report	Good	Moderate	Unhealthy for sensitive groups	Unhealthy	Very unhealthy
Tooele	343	271	60	12	0	0

Source: EPA.gov

Criteria Pollutant Baseline Data

Currently in Tooele County, criteria pollutants PM<sub>2.5</sub> and Ozone are being monitored via the Air Quality System (AQS) monitoring station at 434 North, 50 West in Tooele. According to the Utah 2014 Air Monitoring Network Plan prepared by the Division of Air Quality, Utah State Department of Environmental Quality (DEQ), the parameters of this AQS station are listed in Figure 2.6. The monitoring plan indicates the DEQ is actively researching a new monitoring site in Erda, northern Tooele County. This site would replace the Beach (B4) monitoring station as well as the Tooele (T3) monitoring station. Recent studies indicate the Erda site is higher than both the Beach site and the Tooele site for ozone.

**Figure 2.6** Specifications for air quality system Monitoring system

<b>Site:</b> Tooele #3	<b>Longitude:</b> 112.2997	<b>Station Type:</b> SLAMS
<b>AQS#:</b> 49-045-0003	<b>Latitude:</b> 40.5393	<b>MSA:</b> Salt Lake City
<b>Address:</b> 434 North 50 West	<b>Elevation (M):</b> 1511	
<b>City:</b> Tooele		
<b>County:</b> Tooele		

**Site Objective:**  
This site is established to determine population exposure to air pollutants.

**Does the site meet the objective:**  
Yes, all objectives are met.

**Site Description:**  
The site is located in the city of Tooele, Tooele County.

**Can data from this site be used to evaluate NAAQS ?:** Yes

Gas/Particulate parameters:				
Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Ozone	Instrumental Ultra Violet	Seasonal	Population Exposure	SLAMS- Population Neighborhood
PM <sub>2.5</sub>	Manual Gravimetric	1 in 3 days	Population Exposure	SLAMS- Population Neighborhood
PM <sub>2.5</sub> Real time	Instrumental TEOM FDMS	Continuous	Air Pollution Index	SLAMS- Population Neighborhood

Meteorological parameters:				
Parameter	Sampling & Analysis Method	Operating Schedule	Tower Height	Spatial Scale
Relative Humidity	Elec. Thin Film	Continuous	3 meters	Urban
Ambient Temperature	Elec. Resistance	Continuous	10 meters	Urban
Wind Direction	Elec. Resistance Level 1	Continuous	10 meters	Urban
WD Sigma	Elec. EPA method	Continuous	10 meters	Urban
Wind Speed	Elec. Chopped signal Level 1	Continuous	10 meters	Urban



Source: Utah Division of Air Quality Annual Monitoring Plan (2014).  
 Accessed from: <http://www.airmonitoring.utah.gov/network/AnnualMonitoringPlan2014.pdf>

Particle Pollution

"Particulate matter," also known as particle pollution or PM, is a complex mixture of microscopic particles and liquid droplets. Particle pollution includes a number of components, including acids, such as nitrates and sulfates, metals, organic chemicals, and soil or dust particles. Particle pollution can cause serious health problems since fine particles that contain very small solids or liquid droplets can get deep into the lungs (EPA, 2013). Particle size is directly linked to potential for causing health problems. The EPA is most concerned with particles that are 10 micrometers in diameter or smaller because these particles usually pass through the throat and nose and enter the lungs. Once

inhaled, these particles can affect the heart and lungs and cause serious health problems.

EPA has two categories for particle pollution:

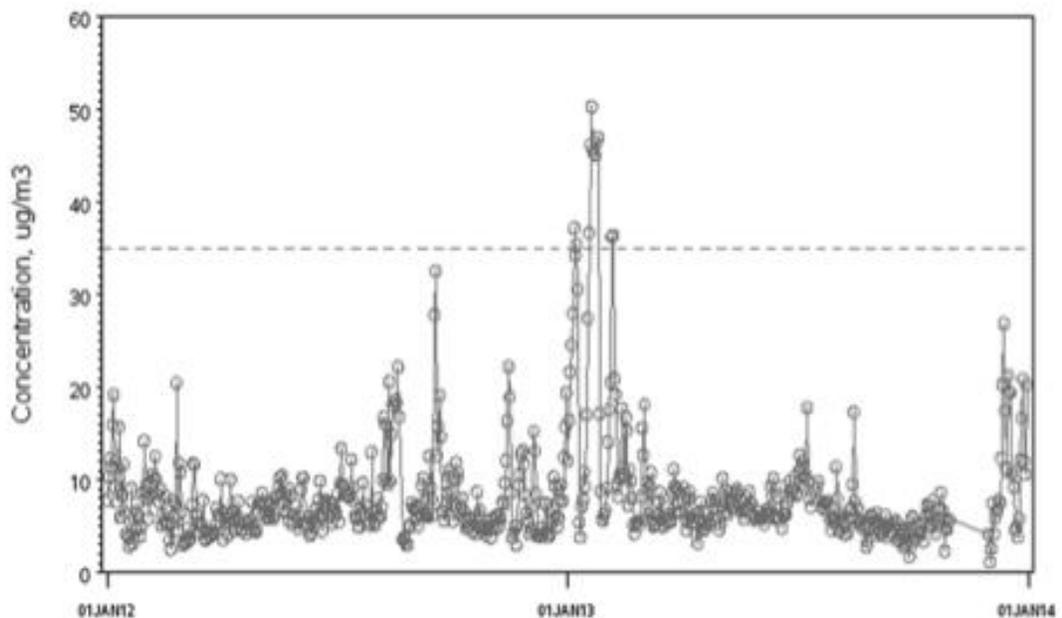
1. "Inhalable coarse particles," such as those found near roadways and dusty industries that are larger than 2.5 micrometers and smaller than 10 micrometers in diameter. These are not currently being consistently monitored in Tooele County.
2. "Fine particles," generally found in smoke and haze, are 2.5 micrometers in diameter and smaller. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air (EPA, 2013). For this report, we will focus on the second category of particulate matter, or PM<sub>2.5</sub>, which is most dangerous to one's health and is currently being monitored in Tooele County.

PM<sub>2.5</sub> is about 1/30<sup>th</sup> the size of an average human hair and can aggravate lung and heart diseases. It has been associated with various serious health problems including chronic bronchitis, heart attacks and asthma. Sources of PM<sub>2.5</sub> include fuel combustion from automobiles, power plants, industrial processes, wood burning, and diesel-powered vehicles such as buses and trucks. There are special concerns for vulnerable groups such as the potential hazards to expectant mothers and their developing fetuses and to small children. Research shows that prenatal exposure to pollutants can increase the risk of preterm delivery and low birth weight (LBW) (less than 2,500 grams or 5.5 pounds). This is a public health challenge that may contribute significantly to infant mortality and developmental disabilities (Lacasana, Esplugues & Ballester, 2005).

The EPA dramatically strengthened the fine particle standards to protect public health in September 2006, tightening the 24-hour standard from 65 to 35 micrograms per cubic meter (EPA, 2013).

Figure 2.7 shows the Tooele County daily mean concentrations of PM<sub>2.5</sub> in 2012 and 2013. In January 2013, there were some days that went over the 35 micrograms per cubic meter standard. In January 2013, there were some days that went over the 35 micrograms per cubic meter standard which was probably due to the wintertime inversion.

**Figure 2.7** Daily mean PM<sub>2.5</sub> concentrations from 01/01/12 to 12/31/13, Tooele County, Utah



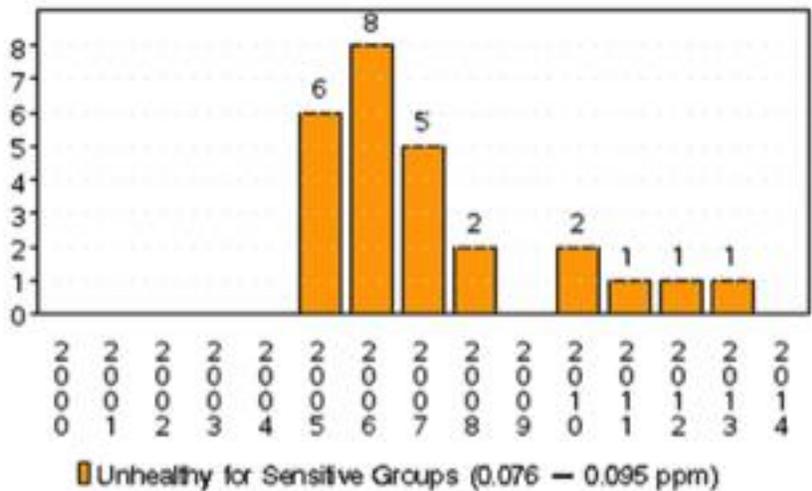
Source: U.S. EPA AirData <<http://www.epa.gov/airdata>>  
Generated: July 27, 2014

## Ozone

Ozone is formed when nitrogen oxide and volatile organic compounds react in the presence of sunlight and heat. Children under fourteen, persons over age 65, individuals

with lung diseases such as asthma, and people who work or exercise outside are at risk for adverse effects from ozone. These include reduction in lung function and increased respiratory symptoms as well as respiratory-related emergency department visits, hospital admissions, and possibly premature deaths (EPA, 2012). Figure 2.8 has baseline data for ozone in Tooele County. Since 2010, there have been 5 days where the 8-hour ozone exceeded the daily max of greater than 0.075 parts per million (ppm). Nitrogen oxides and sulfur oxides also contribute to ozone.

**Figure 2.8** Number of days 8-hr ozone daily max > 0.0756 ppm, Tooele County, Utah, 2000-2014

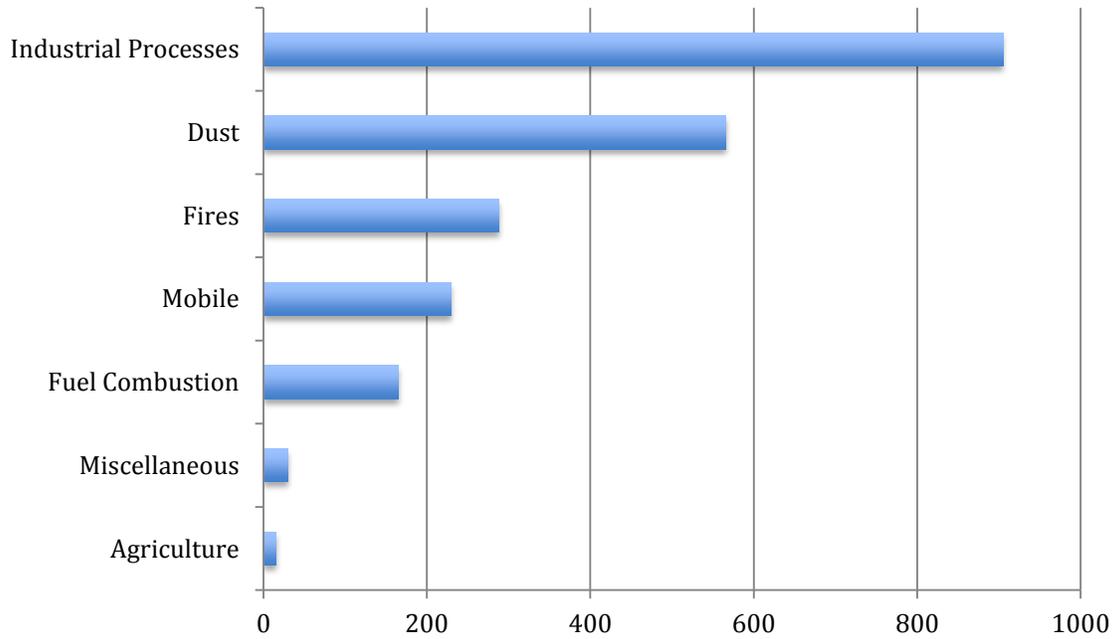


### Pollution Sources

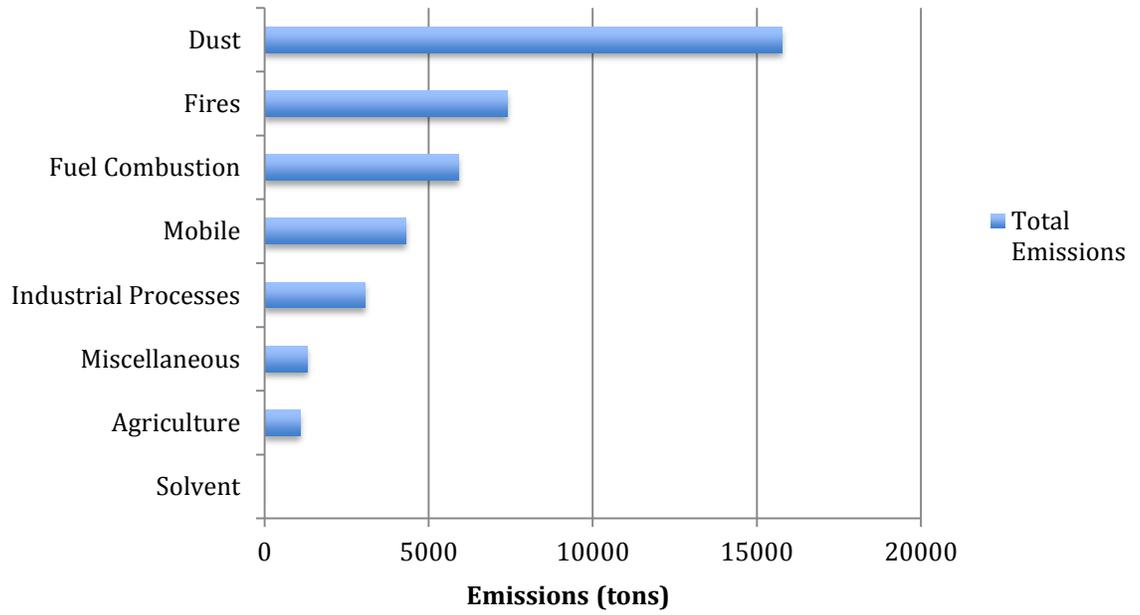
The main source in Tooele County for PM<sub>2.5</sub> is industrial processes. Dust, fires, mobile sources and fuel combustion are the top five contributing sources (Figure 2.9). In Utah, dust is the number one source for PM<sub>2.5</sub> (Figure 2.10). Due to this fact, there needs

to be a plan in place to minimize and reduce dust during the construction phase and once the prison is built, to address the anticipated growth in vehicle miles traveled.

**Figure 2.9** PM 2.5 emissions in tons by source sector  
Tooele County, Utah  
(National Emission Inventory 2011 v1 Ground Penetrating Radar )



**Figure 2.10** PM 2.5 emissions by source sector  
Utah (National Emission Inventory 2011 v1 Ground Penetrating Radar)



### Air Pollution and Mortality

In an estimate of the global burden of disease, outdoor air pollution accounted for approximately 1.4% of total mortality, 0.5% of all disability-adjusted life years (DALY's) and 2% of all cardiopulmonary disease (Cohen et al., 2004 p. 1).

Epidemiological studies have suggested that mortality impacts were likely to occur primarily among the elderly, and the WHO estimates indicate that 81% of the attributable deaths from outdoor air pollution occurred in people 60 years and older. Children under five years of age accounted for 3% of the total attributable deaths from outdoor air pollution and 12% of the attributable DALY's (WHO, 2012 p.1). Therefore, education on air quality needs to be focused on the elderly and children, along with outdoor workers.

### Construction Impact

Building a prison would involve vehicles with non-road diesel engines that are used in various construction equipment and machines such as excavators and heavy forklifts. They are a primary source of air pollution not only from tail-pipe emissions but also from "hot soak," the evaporative hydrocarbon emissions which escape from a vehicle during the first hour after the engine is stopped. Pollutants from tailpipe emissions pose the most significant health concern, and it is important to understand how these air toxics impact health. These include benzene, 1,3-butadiene, formaldehyde, and diesel exhaust. Table 2.7 shows a sample of the air toxics that are hydrocarbon emissions. Of all the outdoor air toxics, benzene is the most significant contributor to cancer risk, according to the National Scale Air Toxics Assessment for 1999. The EPA's Health Assessment Document for Diesel Engine Exhaust concluded that long-term or

chronic inhalation exposure is likely to pose a lung cancer hazard to humans, as well as damage the lung in other ways depending on exposure (EPA, 2002), as shown in Table 2.7. Short-term or acute exposures can cause irritation and inflammatory symptoms of a transient nature, these being highly variable across the population. The assessment also indicated that evidence for exacerbation of existing allergies and asthma symptoms is emerging. Diesel engine emissions, as a mixture of many constituents, also contribute to ambient concentrations of several criteria air pollutants including nitrogen oxides and fine particles, as well as other air toxics.

Table 2.7 Health effects of air toxins	
Air Toxics	Health Effects
Benzene	<p><b>Short-term Effects:</b> Neurological symptoms of inhalation exposure include drowsiness, dizziness, headaches, and unconsciousness in humans. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions in humans. (ATSDR, 2007)</p> <p><b>Long-term Effects:</b> Chronic inhalation of certain levels of benzene causes disorders in the blood in humans. Benzene specifically affects bone marrow (the tissues that produce blood cells). Aplastic anemia (a risk factor for acute nonlymphocytic leukemia), excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Adverse effects on the fetus, including low birth weight, delayed bone formation, and bone marrow damage, have been observed where pregnant animals were exposed to benzene by inhalation. (EPA, 2009)</p> <p><b>Cancer Risk:</b> Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene. (ATSDR, 2007). EPA has classified benzene as a Group A, known human carcinogen. (EPA, 2009).</p>
1,3 Butadiene	<p><b>Short-term effects:</b> Irritation of the eyes, nasal passages, throat, and lungs. Neurological effects, such as blurred vision, fatigue, headache, and vertigo, have also been reported at very high exposure levels. (ATSDR, 1992).</p> <p><b>Long-term Effects:</b> One epidemiological study reported that chronic (long-term) exposure to 1,3-butadiene via inhalation resulted in an increase in cardiovascular diseases, such as rheumatic and</p>

	<p>arteriosclerotic heart diseases, while other human studies have reported effects on the blood (ATSDR, 1992). Animal studies have reported effects on the respiratory and cardiovascular systems, blood, and liver from chronic, inhalation exposure to 1,3-butadiene.</p> <p>EPA has classified 1,3-butadiene as carcinogenic in human by inhalation. (EPA, 2009)</p>
Diesel Engine Exhaust	<p><b>Short-term exposures</b> can cause irritation and inflammatory symptoms of a transient nature, these being highly variable across the population. Aggravation of existing allergies and asthma symptoms is another impact. <b>Long-term inhalation exposure</b> is likely to pose a lung cancer hazard to humans, as well as damage the lung in other ways, depending on exposure.</p>
Formaldehyde	<p>Low levels of formaldehyde can cause irritation of the eyes, nose, throat, and skin. It is possible that people with asthma may be more sensitive to the effects of inhaled formaldehyde. Some studies of people exposed to formaldehyde in workplace air found more cases of cancer of the nose and throat than expected, but other studies did not confirm this finding.</p>

Source: EPA, 2012

Construction activities create tailpipe exhaust, along with dust. Significant amounts of particulate matter can be created in the form of dust from construction processes and from equipment wear-and-tear as wheels and other moving parts get worn down (White, Schooley & Dobson, 2011). The estimated time frame to build a prison could range from three to seven years according to the State of Utah Prison Relocation and Development Authority Master Plan for the Potential Relocation of the Draper Prison (MGT, 2014). Based on how long the construction cycle takes, it could continuously stir up dust into the air. The dust levels would be tracked via PM10, which is not currently consistently monitored in Tooele County.

The rest of this air quality assessment of related health impacts on construction workers and nearby residents will focus on estimates of four of the more hazardous air toxics contained in diesel exhaust: diesel particulate matter, acetaldehyde, benzene, and

formaldehyde (Table 2.8). These toxics were chosen based on available research that measured these pollutants at various construction sites. This data can then be compared to established benchmarks for these toxics in order to assess levels of increased health risks that the construction workers might face. Because the composition of diesel exhaust is highly dependent on the manufacture year of the equipment being used, it could vary considerably depending on the contractors' fleet composition. This variation is impacted by the EPA regulations on diesel emissions by imposing requirements on engine manufacturers. Emission reductions happen when fleets turn over with newer, less polluting engines and replace older equipment. EPA initiated regulation of diesel engines with the establishment of Tier 1 standards for non-road equipment in the early 1990's. More rigorous Tier 2 and Tier 3 standards have since been applied, and Tier 4 standards are now in place. Consequently, construction workers using older equipment would be exposed to significantly higher concentrations of air toxics than construction workers using newer equipment (White, Schooley & Dobson, 2011).

A study conducted by Northeast States for Coordinated Air Use Management (NESCAUM) with support from the EPA determined estimates of possible pollutant levels (NESCAUM, 2004). During the study, researchers measured air pollutants for three days at five different work sites, placing monitors in cabs, around equipment and at the perimeters of the work sites. The manufacture date of the equipment used at these sites ranged from 1979 to 2002, with a median date of 1995. It is possible that construction workers starting work on the prison construction project could be using an older fleet; however, since the median date of the equipment is over 19 years old, the fleet mix measured in this study likely provides a good basis for estimating the higher

end of the range of pollutant levels that workers may encounter. The EPA assessment's health hazard conclusions are based on exposure to exhaust from diesel engines built prior to the mid-1990's, so they also would indicate the higher end of the range of hazards.

**Table 2.8** Modeled concentrations and benchmarks for air toxins from all sources in evaluating the occupational and environmental impact of non-road diesel equipment in the Northeast area block groups

<b>Air toxin</b>	<b>Ambient benchmark concentrations (ug/m<sup>3</sup>)</b>	<b>Average of modeled ambient concentrations for study area block groups (ug/m<sup>3</sup>)</b>	<b>Magnitude of difference relative to benchmark</b>
<b>Benzene</b>	0.13	2.378	17.29
<b>1,3 Butadiene</b>	0.03	0.136	3.52
<b>Diesel Particulate Matter (DPM)</b>	0.1	2.439	23.39
<b>Formaldehyde</b>	3	0.903	-0.7
<b>Acetaldehyde</b>	0.45	0.471	0.05
<b>Acrolein</b>	0.02	0.135	5.75

Source: White, Schooley & Dobson, 2011

Table 2.9 shows the average measured concentrations from the five NESCAUM study sites along with the ambient benchmark concentrations, and the 8-hour time weighted average benchmarks established by the U.S. Occupational Health and Safety Administration (OSHA) and the National Institute of Occupational Safety and Health (NIOSH). Based on these numbers, construction workers would face highly elevated levels of both benzene and DPM, as well as moderately elevated levels of acetaldehyde and formaldehyde.

**Table 2.9** Health-based benchmarks and measured concentrations of select air toxics at New England construction sites

<b>Air toxic</b>	Average measure concentration (ug/m <sup>3</sup> )	DEQ annual ambient benchmark concentrations (ug/m <sup>3</sup> )	OSHA 8-hr time weighted average benchmarks (ug/m <sup>3</sup> )	NIOSH 8-hr time weighted average benchmark (ug/m <sup>3</sup> )
<b>Acetaldehyde</b>	1.38	0.45	360	NA
<b>Formaldehyde</b>	2.57	3	0.92	0.02
<b>Benzene</b>	6.6	0.13	31.9	0.319
<b>Diesel Particulate Matter (DPM)</b>	4.54	0.1	NA	NA

DEQ: Department of Environmental Quality; OSHA: Occupational Safety and Health Administration; NIOSH: National Institute for Occupational Safety and Health; Source: NESCAUM 2004

Table 2.9 indicates that there is a degree of difference in these benchmarks, with OSHA’s benchmarks being set significantly higher than the others. The exception is the benchmark for formaldehyde, for which the DEQ benchmark is much higher. This difference is due to varying interpretations of available scientific evidence regarding whether formaldehyde is a carcinogen. DEQ has classified formaldehyde as a non-carcinogen, while OSHA and NIOSH consider it a probable carcinogen. OSHA’s relatively high benchmarks are primarily the result of its focus on occupational exposure and acceptable level of risk. Since OSHA is concerned with occupational exposure, the people it is hoping to protect are not continuously exposed to high levels of these toxics. Work period exposure to these toxics is averaged with non-work exposure, the long-term average concentration levels to which workers are exposed and which determine long-term health impacts. Second, benchmarks reflect a decided-upon acceptable level of risk. Air toxicologists have yet to establish a “no-effects” threshold for any air toxic, so there is always going to be the likelihood that exposure, even at very low levels, will produce

adverse health effects in some individuals. Scientific evidence and numerous other considerations are reflected in OSHA’s benchmarks and are the result of their attempts to balance the trade-offs between health and non-health benefits.

NIOSH is the scientific research arm of OSHA and is responsible for developing the scientific evidence base and benchmark concentrations for informing OSHA’s choice of benchmarks. Similar to OSHA regulations, NIOSH regulations are concerned with occupational exposure. As Table 2.9 indicates, the health-based benchmarks provided by NIOSH are significantly lower than the OSHA benchmarks. This means that OSHA’s benchmarks contain a higher level of acceptable risk when it comes to the respiratory health of workers. The NIOSH benchmarks imply that even if OSHA benchmarks are achieved at a work site, significant cardio-respiratory health improvements can be gained by maintaining much lower levels of workplace concentration levels.

<b>Table 2.10</b> Anticipated reductions in air toxics concentrations resulting from predominant use of Tier 4 equipment			
<b>Air toxic</b>	Ambient benchmark concentrations (ug/m <sup>3</sup> )	Average modeled ambient concentrations for study area block groups (ug/m <sup>3</sup> )	Magnitude of difference relative to benchmark (ug/m <sup>3</sup> )
<b>Acetaldehyde</b>	0.45	0.471	0.05
<b>Formaldehyde</b>	3	0.903	-0.7
<b>Benzene</b>	0.13	0.136	3.52
<b>Diesel Particulate Matter</b>	0.1	2.439	23.99
<b>Acrolein</b>	0.02	0.135	5.75
<b>1,3 Butadiene</b>	0.03	0.136	3.52

Source: EPA 2004, 2007

The estimate of the lower end of the range of possible pollutant concentration levels for benzene, formaldehyde and acetaldehyde is based on EPA's assessment of non-road air toxics trends developed in support of the "Control of Hazardous Air Pollutants from Mobile Sources: Regulatory Impact Analysis" (EPA, 2004). This study estimated reductions in individual air toxic between 2010 and 2030, based on current and anticipated fuel and equipment regulations, including the Tier 4 diesel equipment requirements for non-road engines. The projected decreases of emissions per gallon for 2030 detailed in this study provide an estimate of the potential reduction in air toxics if most of the equipment being used is Tier 4 equipment. The anticipated reductions for the four air toxics being considered here are displayed in Table 2.9. As this table shows, predominant use of Tier 4 equipment would bring acetaldehyde and formaldehyde levels below current DEQ benchmarks. Benzene and DPM concentrations remain well above the benchmarks. However, they are significantly lower than the alternative and would likely be accompanied by reduced health risks.

## **Recommendations**

The public health field recognizes air quality as an important determinant of health. Exposure to air pollutants is beyond the control of individuals and requires action by public authorities. The health sector can play a significant role in leading a multifaceted approach to reduction of exposure to air pollution. Solutions include engaging and supporting other relevant sectors such as transportation, industry, energy production, and construction to develop and implement long-term policies to reduce the risks of air pollution to health.

## Planning Phase

With a prison relocation, there is anticipated population growth along with economic expansion. This will create increased driving in Tooele County, which increases the emissions of harmful air toxics. Due to the anticipated increase in vehicle miles travelled, there needs to be an expansion of the Utah Transit Authority public transportation options. The bus routes to Salt Lake County and within Tooele County are currently limited and no train routes are available. These need to be reviewed and expanded so that workers and potential new residents would have other options for commuting into Tooele County. There should be an initial incentive, such as a substantially reduced monthly pass, to motivate drivers to use public transportation.

Another area in this phase is establishing construction guidelines for air toxics. This involves working with the UDOT to develop more stringent emissions-based equipment fleet requirements or incentives for contractors and sub-contractors working on the project of building the prison. TCHD could also collaborate with UDOT to identify and apply for grants to improve construction equipment emissions. Understanding the age of the construction fleet will help to determine the level of emissions and pushing for newer vehicles that are Tier 4 compliant will improve the air quality. Establishing ongoing PM10 monitoring shows a commitment to track and establish baselines while having an action plan if the levels exceed recommended goals. Without tracking PM10, it is difficult to know the impact of dust prior to construction.

Since it is anticipated that the construction and additional vehicle miles travelled will decrease air quality, it may be wise to consider more environmental friendly options to improve air quality. One is developing renewable energy sources such as wind or solar.

Offering incentives to residents who initiate these options will decrease the need for nonrenewable energy resources. Wood burning contributes to air toxins and one option would be to move residents who heat their homes by wood alone to natural gas by subsidizing these conversions. Another idea is to provide incentives for residents to drive energy-efficient vehicles, which will help to reduce tailpipe emissions. There also should be outreach to local industry on ways it could help to reduce overall air pollution since everyone needs to be part of the solution.

### Construction Phase

There are various areas that can be addressed to reduce emissions of air toxics during the prison construction. One key component of the construction phase is community outreach. This includes creating information and outreach programs to alert area residents of construction schedules and locations and inform them of the potential health effects of being near construction activities. The public should be notified on days where the wind exceeds twenty-five miles per hour since additional dust may occur. The contractor is responsible to employ dust suppression techniques per the fugitive dust rule approved by the EPA.

The construction workers need to have the proper protective respiratory gear if appropriate to reduce their exposure to the construction toxins. This safety gear should be used for workers who have ongoing exposure. Rewarding construction companies to keep toxins below established levels may motivate them to focus on how to improve air quality.

Operation Phase

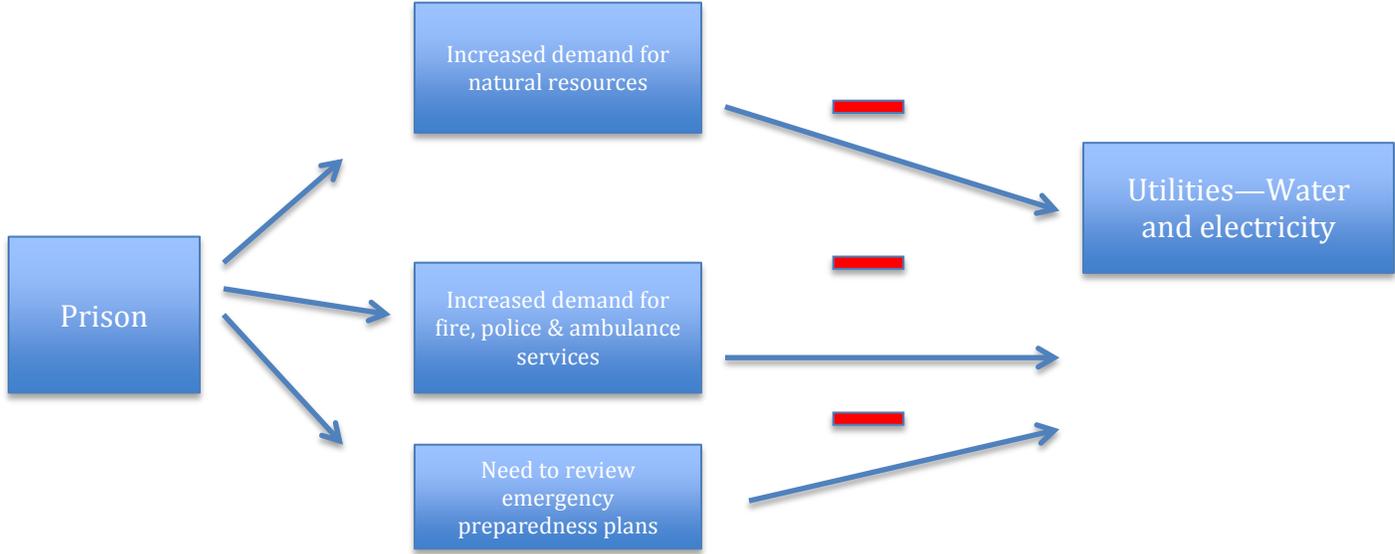
Once the construction is complete, air quality will continue to be of concern since there will be increased vehicle miles travelled due to increased employment opportunities in Tooele County. One key area is to continue to the monitoring of air quality and have the contractor use a site specific monitor. With expanded bus routes, the ridership needs to be monitored and tracked to determine ways to motivate others to use public transportation. Other incentives include working with UDOT on grants for residents to drive high efficiency vehicles and continuing wood burning conversions.

**Summary of Recommendations:**

Planning Phase	Construction Phase	Operation Phase
<p>Review existing bus routes within Tooele County and into Salt Lake County for potential expansion</p> <p>Establish strategy for tracking PM10 for baseline and goals</p> <p>Work with the UDOT to develop more stringent emissions-based equipment fleet requirements or incentives for contractors and sub-contractors</p> <p>Collaborate with UDOT to identify and apply for grants to improve construction equipment emissions</p> <p>Consider subsidizing conversions of residential wood burning to natural gas and promoting energy efficient vehicles</p> <p>Outreach to local industry and residents on ways to improve air quality</p>	<p>Create information and outreach programs to alert area residents of construction schedules and locations and inform them of the potential health effects of being near construction activities</p> <p>Hold contractor responsible for a site specific air quality monitor</p> <p>Provide construction workers with protective respiratory gear</p> <p>Incentivize construction company to stay below established air toxic levels</p> <p>Educate area residents and construction workers on how to avoid exposure to air toxics created by construction</p>	<p>Continue air quality monitoring</p> <p>Measure usage of public transportation and develop campaigns to increase ridership</p> <p>Work with UDOT on grants to incentivize residents to drive high efficiency vehicles</p> <p>Continue wood-burning conversions and development of renewable energy sources</p>

UDOT: Utah Department of Transportation

## 2.8 Public Services & Utilities



### **Introduction**

#### Public Services and Utilities

Community facilities such as fire protection facilities, and law enforcement sites help provide vital community services and are important to the support of a successful prison transition. Various utilities are needed to run a prison including water, a sewer system, and electricity. Understanding the current capacity of Tooele County (Grantsville in particular) and its existing usage will help to determine if it can support a prison’s utility needs. Utility systems availability and capacity is discussed below.

#### Water Supply and Usage

There are currently 2,569 residential and commercial connections active in Grantsville. The minimum capacity allowed per connection is 800 gallons per day (Utah Water Department, 2014). There are currently 5 active wells in Grantsville that range in capacity from 275 to 1,640 gallons per minute (Table 2.11). Their total daily capacity is

over 6 million gallons. The water usage in Grantsville for 2013 was 513.8 million gallons. The state prison currently uses 257 million gallons of water annually, so the total need for water would be over 770 million gallons.

**Table 2.11** Well systems in Grantsville, Utah

Well #	Capacity: gallons/minute	Status
1	530	Inactive
2	740	Active
3	1,000	Active
4	550	Active
5	1,640	Active
6	275	Active
Total	4,205	
Daily Capacity	6,055,200	

**Table 2.12** Water storage, Grantsville, Utah

Tank #	Total Gallons
1	225,000
2	500,000
3	1,000,000
4	1,000,000
Total water in storage	2,725,000
Storage needed for existing connections (minimum of 400 gallons for each connection)	1,027,600
Available water stored	1,697,400

The Jordan Valley Water Conservancy District (JVWCD) provides culinary water supply to the Utah State Prison. The current usage of water at the state prison in Draper varies from 15.2 million gallons in February to 29.6 million gallons in August (Table

2.12), with a total annual usage of 256.5 million gallons of water. The UDOC controls rights to draw groundwater supplies from one well located on the prison property, which provides approximately 200 gallons per minute (gpm). This well is contracted with JVVCD to operate. There are two 200,000 and two 400,000 storage tanks near the facility for a total storage of 1.2 million gallons (MGT, 2014). The peak hour demand (6:00-7:00 a.m.) during 2013 was approximately 6,000 gpm, with a 24-hour daily average of 0.6 gpm. Assuming an inmate population of 4,000 in Draper, one could calculate the typical inmate usage rate per day of 150 gallons (MGT, 2014).

The sewage system is another consideration for utilities and infrastructure. The Grantsville sewage system currently has a total capacity of 1.5 million gallons/day. The current usage is 0.75 million gallons/day, with an available capacity of 0.75 million gallons. As these figures suggest, with the anticipated growth in the prison population, water is a concern, and there needs to be a more thorough review during the prison siting process to ensure that minimum needs for water can be met.

<b>Table 2.13</b> Water deliveries in gallons for Jordan Valley Water Conservancy District, 2013*			
<b>Month</b>	<b>Total metered</b>	<b>Prison well</b>	<b>Total prison</b>
Jan	16,716,208	0	16,716,208
Feb	15,282,459	0	15,282,459
Mar	17,367,912	0	17,367,912
Apr	16,488,111	0	16,488,111
May	11,176,724	13,073,182	24,249,906
Jun	14,272,318	12,786,432	27,058,750
Jul	15,901,578	12,757,106	28,658,683
Aug	17,270,156	12,343,274	29,613,430
Sep	15,575,726	8,889,243	24,464,968
Oct	20,300,580	0	20,300,580
Nov	7,690,107	9,462,742	17,152,849
Dec	6,875,477	12,294,396	19,169,873
<b>Total</b>	<b>174,917,354</b>	<b>81,606,375</b>	<b>256,523,728</b>

\* Includes all DOC facilities. Source: Jordan Valley Water Conservancy District, 2014

## Electricity

Electrical service is provided to the Draper Correctional Facility by the Rocky Mountain Power Company through a substation located at the northeastern corner of the original prison site. The correctional facility maintains 46kV and 12470V primary electrical power throughout the site over a dual side-by-side system to provide redundancy in electrical power. Individual standby generators are distributed throughout the site (MGT, 2014).

Heat for the 350,000 square feet of buildings is generated by natural gas-fired boilers supplied by a six- inch high-pressure natural gas line and supplemented with geothermal heat obtained from a recently upgraded well at the Draper site. The geothermal system is utilized to pre-heat water circulating through the boilers. The geothermal system, installed under the Energy Savings Contract Program (ESCD), is currently in the ninth year of a contract and is approaching the end of the payback period. Return on investment has been lower than originally anticipated and there have been system operational and maintenance issues (MGT, 2014). Sustainability should be incorporated into the design and construction of a prison.

## Emergency Preparedness Plan

Tooele County Emergency Management (TCEM) is a partner in the Federally based and nationally recognized Community Emergency Response Team (CERT) program. TCEM helps to organize, train and equip local CERT's. Currently, there are more than 250 CERT members living or working within Tooele County (TCEM, 2014). The CERT program provides standardized training to equip citizens with the skills

necessary to respond during large emergencies and disasters. CERT training includes Disaster First Aid, Fire Suppression, Light Search and Rescue, Victim Lifts and Carries, Leveraging and Cribbing, Terrorism Awareness, Team Organization, Disaster Psychology, and Emergency Preparedness.

TCEM recognized the benefit and value of having CERTs in each of the Tooele County schools. The Tooele County School District identifies employees in each school for CERT membership and allows them to attend the training. TCEM has been training School CERT's for more than a decade. Trained CERT's also exist within the Tooele County community. TCEM has authorized qualified CERT trainers in the southeast area of Tooele City. Those instructors enlist and instruct volunteers in CERT operations and procedures. Trained CERT members are organized into neighborhood teams based on their places of residence. TCEM manages the Stansbury Park CERT group, which hosts trainings, organization meetings, and exercises (disaster drills). The Stansbury Park CERT continues to recruit and train people living in Stansbury Park, Lake Point, and Erda. Grantsville residents interested in CERT are currently referred to the Stansbury Park CERT group.

### Public Services

There are various fire stations throughout Tooele County. In the city of Tooele, there are currently two fire stations, one at 90 North Main Street and one at 82 North 7<sup>th</sup> Street (500 East). According to the Tooele Fire Department's website, their mission is "to be a volunteer organization that respects the dignity of people and strives to provide the very best fire and rescue services in the community." They have "50 firefighters and

over 100 senior status firefighters [who] are committed to providing the most efficient services possible [and] being accessible ....”.

The North Tooele County Fire Protection Service District was established in 1987. The district covers a 1,700 square mile area and serves a population of approximately 10,000 people. It offers level one (intermediate) services, with many of its 43 volunteer firefighters being certified as EMT’s. It currently has stations in the towns of Erda, Pine Canyon, Lake Point, and Stansbury Park. The headquarters of the North Tooele County Fire Protection Unit is located in the Stansbury Park Station, which was built in 2008 and has a full time staff that leads administration and maintenance. The stations house 16 response vehicles and two HAZMAT decontamination trailers. Tooele County offers police presence throughout the 7,000 square mile jurisdiction. There are approximately 95 law enforcement officers in Tooele County. As the Tooele County Sherriff’s Office website explains, “[t]he Tooele County Sheriff’s Office is responsible for providing 24-hour law enforcement ...” along with police in various cities, including Tooele, Stockton, and Wendover. The Patrol Division, for example, “conducts duties around the clock to ensure safety and serve the community” and “is responsible for responding to emergency and non-emergency calls for service which consist of investigating crimes, investigating traffic accidents, traffic control, apprehending offenders and meeting the needs of the citizens and business owners of Tooele County” (TSCO, 2009). Other community services include the Pharmaceutical Disposal Program, where Tooele County Residents are encouraged to properly dispose of their prescription and over the counter medicines in one of the Prescription Disposal Bins in Tooele, Grantsville or Wendover. There is a Tooele County Detention Center, which

has maximum, medium and minimum-security units housing 277 total beds as well as men's and women's and medical pods. The medical pod has multiple exam, trauma, and mental health rooms. These are a few of the many services that the police in Tooele County provide for the community.

One of the best practices observed in Tooele County is a centralized dispatch service. The dispatch covers over 40 agencies including Highway Patrol, 911, ambulance services, Lifeflight/Airmed, Division of Wildlife Resources, Adult Probation and Patrol, Bureau of Land Management, Bureau of Indian Affairs, and police from Tooele County, Tooele City, Grantsville, and Stockton. The agencies collaborate to help each other and exhibit teamwork in keeping Tooele County residents safe.

Promoting collaboration with local police, prison employees, and community supervision agencies, which includes both probation and parole, is significant. In a host community, such cooperation both increases public safety and reduces recidivism. Over two thirds of released adult prisoners are arrested within three years of release (Langan & Levin, 2002). Building partnerships helps to reintegrate parolees into a host community and manage probationers so that they refrain from criminal activity. There are various benefits to this partnership, such as facilitating supervisee success. Probationers and parolees are more likely to be successful if they can acquire stable housing and employment, abstain from drug and alcohol use, and engage in pro-social activities such as attending school, after-school programs, and faith based actions (Reentry Policy Council, 2005). Reentry preparation, case planning, and support for behavior change represent a vital partnership element necessary to facilitate probationer and parolee success. (Jennetta & Lachman, 2011).

Another benefit of the partnership is that it helps police and community supervision agencies intervene to interrupt criminal behaviors. Many probationers and parolees exhibit identifiable behaviors that may lead to serious criminal activity if left unchecked. Working together, police and community supervision officers are better able to discover problematic behaviors and communicate key information about them to each other. They are also able to provide the information to additional community partners, such as mental health professionals and engage in a coordinated response to address the behaviors.

A third benefit to inter-agency collaboration is the ability to respond quickly to failure. Unfortunately, some probationers and parolees resume criminal activities despite the best efforts of those committed to their rehabilitation. As with intervening to interrupt criminal behaviors, joint efforts in the discovery of criminal activity and clear communication regarding a collaborative response to such acts are key. In this situation, holding such supervisees accountable and preventing further harm may require removing them from the community to protect public safety. Having a strong partnership also enables police officers to communicate relevant neighborhood-based information on a real-time basis and learn more about the probationers and parolees present in their patrol areas. The information from the police helps community supervision officers learn more about the neighborhoods in which their supervisees live, which in turn helps them oversee their caseloads better (Jennetta & Lachman, 2011). Police officers also help facilitate a prison move by continuing to provide critical community services.

Currently, there are two ambulance services that serve Tooele County: Mountain West and Wendover Ambulance. Mountain West currently has two ambulances available

in Tooele, one in Grantsville and one in Stansbury Park. Wendover Ambulance has approximately three to four available. The demand for ambulances will increase due to utilizing an ambulance to transport prisoners to the level one trauma center for medical care. There needs to be a review of ambulance capacity so that it can meet the needs of Tooele County and not increase the wait time for residents to receive services.

## **Recommendations**

### Planning Phase

The planning phase is a good time to complete a detailed study on the impact of water usage along with other utilities. This will help to assess if additional capacity is necessary for the long term and if utility upgrades are needed. Incorporating sustainability and energy efficiency into the utility and construction plan is significant. Using renewable energy, for example, would reduce long- term electricity costs. The beginning phase is also a good opportunity to engage with local fire fighters and police officers to keep them updated on the prison building plan. This is also a good time to determine if local fire and police stations are sufficient to keep up with the anticipated demand.

### Construction Phase

“The construction phase of prisons also provides counties opportunity to upgrade their utility systems, roads, and other infrastructure. Fire and police stations often need to expand to support the prison” (Holley, 2008). Therefore, Tooele County should seize this opportunity to look at issues such as utilities or existing fire and police facilities to determine what needs to be upgraded.

Having an emergency preparedness plan is critical and the government can work with community families on their disaster plan. Conducting emergency preparedness drills is one way to remind team members about this important topic. Water conservation in a state that receives the second-lowest rainfall in the U.S. is a significant issue. Minimizing the grass and watering that needs to be done at the prison will help to save long-term costs. Training on CERT for prison workers helps to get everyone on the same page for disaster recovery planning. These are a few of the ideas that will help to make a smooth transition for the prison in the community.

### Operation Phase

Keeping emergency preparedness at the forefront of residents' minds through ongoing drills is key. Introducing the UDOC employees to local firefighters and police officers helps to foster the idea of a prison as a good neighbor. Engaging local fire fighters and police officers may provide ideas on how they can partner with the prison. Monitoring additional demands on fire and police stations due to the new prison will help assess if there are enough resources to support a safe community in Tooele County.

## Summary of Recommendations

Planning Phase	Construction Phase	Post Construction Phase
Complete detailed study on the impact of water usage along with other utilities and consider implementing utility upgrades	Update residents on emergency preparedness plan	Continue Emergency preparedness drills
Incorporate sustainability and energy efficiency into the utility and construction plan	Conduct emergency preparedness drills	Introduce UDOC employees to local firefighters and police officers
Engage with local fire fighters and police officers, providing updates on the planned prison	Minimize grass/areas that need to be watered at the prison to save on water costs	Continue engagement of public service employees and how they can partner with the prison
Assess if existing fire and police stations need to expand to support the prison	Continue CERT training and work with UDOC to have designated prison employees trained	Monitor additional demands on fire and police stations due to new prison

CERT: Community Emergency Response Team; UDOC: Utah Department of Corrections

## 2.9 Housing



### **Introduction**

This section will focus on housing in Tooele County and the impact it has on health. As the former Surgeon General notes, the social determinants of mental health and general health include adequate housing, equitable jobs and wages, quality education, safe neighborhoods, and equity in access to quality health care (CDC, 2013).

Various studies have linked increasing foreclosure rates to unfavorable health outcomes.

One study investigated the relationship between foreclosures and hospital visits and found that living in a neighborhood with a spike in foreclosures is associated with significant increases in urgent, unscheduled visits, including increases in visits for preventable conditions. This relationship cannot be accounted for by increasing unemployment, declines in housing prices, migration, or by people switching from out-patient providers to hospitals (Currie & Tekin, 2011). An article in the *American Journal*

*of Public Health* found that among other factors, an increase in the total foreclosure rate within a state was associated with an increase in crude suicide rates and effects were stronger for the real-estate-owned foreclosure rate (Houle & Light, 2014).

Understanding affordable housing options is important not only for the health of residents but also for the potential to reduce crime. The Justice Policy Institute conducted a literature review on populations who are most at risk for criminal justice involvement. They found that supportive affordable housing has been shown to be a cost-effective public investment, lowering corrections and jail expenditures and freeing up funds for other public safety investments. Additionally, providing affordable or supportive housing to people leaving correctional facilities is an effective means of reducing the chance of future incarceration (JPI, 2007). In a study on providing supportive housing for homeless persons with severe mental illness, jail incarceration rates were reduced up to 30% and prison incarceration rates up to 57% (Culhane, Metraux & Hadley, 2002, p.107).

The families of inmates also need outreach and assistance on health issues. A study on family members of people in jail by researchers at Virginia Polytechnic Institute and State University found that 48% of the participants experienced declining health after the person was jailed and 27% reported their children's health had declined (Arditti, Lambert-Shute & Joest, 2003, p. 196). These families need to have options for affordable housing so that it is one less thing for them to worry about. Continuing community outreach on affordable housing programs is a key factor to providing info so residents are aware of affordable housing options.

## **Assessment**

### Affect of Correctional Facilities on Residential Values

Studies have assessed the impact of prisons on property values. Location is a significant element in determining land value. The relative locational value, which is the proximity of a land parcel to other tracts, is the primary factor that determines the land's overall value. Proximity to desirable features usually increases a parcel's value and proximity to undesirable features generally decreases its value. A U.S. Department of Justice National Institute of Corrections study looked at seven correctional facilities from Idaho to Florida to determine the changes in property values in surrounding areas. Regression techniques were used to measure the relationship of sales price to other variables such as location, lot size or amenities. Comparisons were done on resale values in target and control areas both prior to and after facility construction (DOJ, 1994). The investigators also sent a survey to realtors in the surrounding communities that asked questions about the local residential market, concerns of potential home buyers, and property values. Realtors were asked to compare property values, sales activity, and buyer concerns within a three-mile radius of the correctional facility to those of an area located farther from the facility. The realtors also were asked to rate how often potential buyers had expressed concern over the presence of a correctional facility.

The findings of the assessment showed a consistent impact across property values in the seven target areas. In the three years examined, sales prices for residential property in the target areas were not significantly different from those in the control areas. One exception was a high-income target area near the Arizona State Prison Complex at Perryville, where lower values occurred during the third of three years studied.

According to the results, the location had a negative effect on the price of a house in this area, lowering the average value by \$18,000. Factors unrelated to the prison such as zoning changes, overabundance of rental property or lack of owner care may account for this finding. Another possibility is that constant public opposition to the facility may have lowered the residential property values in this affluent area (DOJ, 1994). Seventy-nine realtors responded to the survey, and most stated that the presence of the facilities in their communities had little or no negative effect on sales price. Most realtors did not believe that sales activity was adversely impacted by the presence of a correctional facility. Only two realtors, from Memphis, Tennessee, and Boise, Idaho, relayed losing one or more potential buyers specifically because of the facility.

Besser and Hanson completed a study analyzing small towns that acquired a new state prison in the 1990's. They found a lower median value of housing units and fewer housing units in 2000 than towns without a state prison when the 1990 population and economic indicators, region and prison age were controlled (Besser & Hanson, 2004). The study utilized the 1990 and 2000 census data to compare small towns with and without new prisons on several economic and demographic measures. Small towns are defined as incorporated areas with 10,000 or fewer in population. This would fit the definition of Grantsville, a potential prison relocation site, based on the 2010 Census population of 8,893. Of the 274 new state prisons opened from 1990-2000, 69% were opened in towns of 10,000 or fewer. The researchers compared the 176 towns that had a state prison to all other 19,253 small towns. They found a lower median value in housing for the prison towns. Therefore, this study concluded that prison towns did have a lower median home value (Besser & Hansen 2004).

## Available Housing

As of August 2014 there were 457 residential properties listed in Tooele County that ranged in price from \$17,000 to \$1.1 million (Table 2.14). The median home value in 2014 to date is \$165,500, with approximately 2000-2300 square feet. There were 1,215 homes that sold from the second quarter of 2013 to the second quarter of 2014 in Tooele County (Utah Association of Realtors, 2014). The absorption rate is the rate at which all available homes on the market would be sold, assuming no new homes become available. A balanced market is when the number of listings roughly equals the number of buyers—around a six-month supply of homes. Having absorption rates less than six months is defined as a sellers’ market and rates above six months indicates a buyers’ market (Realtor Magazine, 2007). Currently, it appears that Tooele County is a balanced market while Utah as a whole is in a buyers’ market.

**Table 2.14** Description of current housing market in Tooele County, Utah, 2014

Area	Closed sales 2nd quarter 2013- 2nd quarter 2014	Average monthly closings	Current stock of homes (08/14)	Absorption rate	Median sales price (2014 year to date)
<b>Tooele County</b>	1,215	81	457	6 months	\$165,500
<b>State of Utah</b>	40,514	2,701	17,708	7 months	\$206,000

Source: Closed dates stat from “All County Quarterly reports” Utah Association of Realtors, 2013

## Vacancy Rates

In Tooele County, the homeowner vacancy rate (Table 2.15), which is defined as the percentage of homes that are vacant for sale, and the rental vacancy rate were lower

than the national average. This indicates that the housing supply is somewhat short of housing demand. Approximately 25% of the housing units in Tooele County are rentals, 324 units, with the median rent at \$783 (U.S. Census Bureau, 2008-2012 ACS). Home prices declined significantly in 2010 and 2011, with the last 3 years seeing significant increases. The median sales price increased by 14.7% in 2013 and continues to show an upward trend in 2014 (Table 2.16).

**Table 2.15** Vacancy rates: Tooele County compared to the U.S.

<b>Vacancy rate</b>	<b>U.S.</b>	<b>Tooele County</b>
Homeowner vacancy rate	2.00%	1.60%
Rental vacancy rate	6.80%	6.60%

Source: U.S. Census Bureau, 2008-2012 ACS

**Table 2.16** Median sale prices and annual rate of change, 2008-June 2014

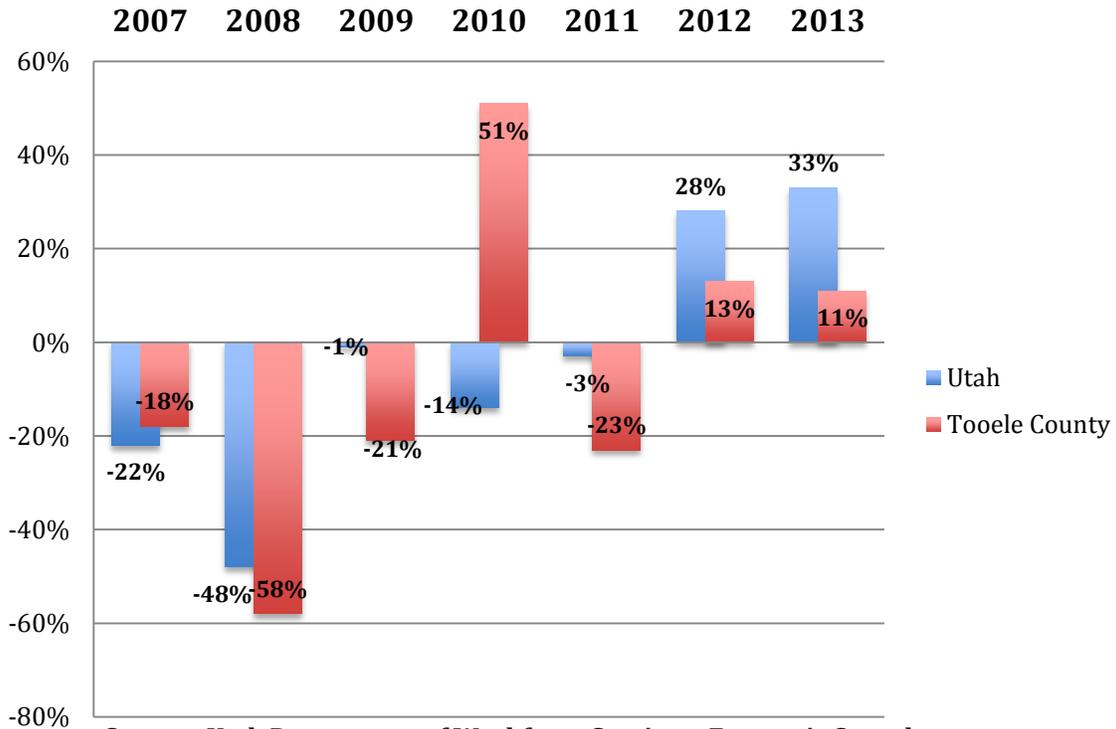
<b>Year</b>	<b>Tooele County</b>	<b>Yearly Change</b>
2008	\$134,321	
2009	\$84,795	0.32%
2010	\$84,795	-37.07%
2011	\$78,636	-7.26%
2012	\$98,098	24.75%
2013	\$112,493	14.67%
2014	\$161,582	43.64%

Source: Salt Lake Board of Realtors

## Construction of New Housing

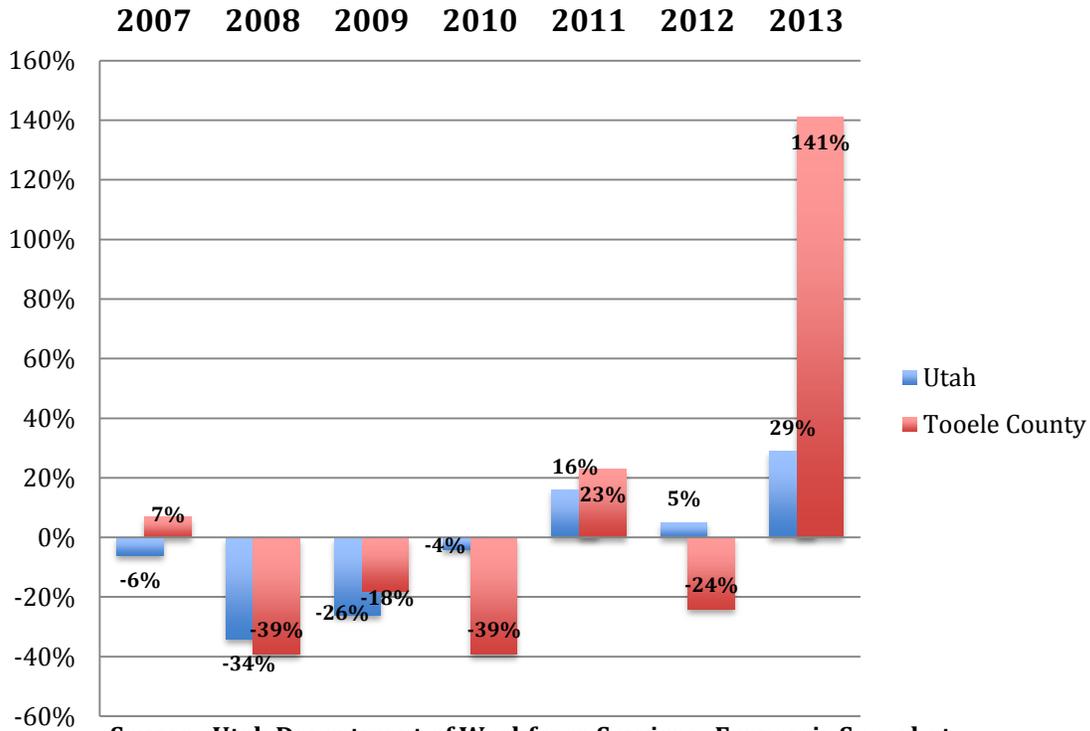
Construction of new housing slowed during the recession, but construction permits in the past two years showed a rebound. While not as robust as the overall state numbers, the permits for residential construction increased by 13% in 2012 and 11% in 2013 (Figure 2.10). Construction values have seen a significant increase, especially when comparing 2012 and 2013 in Tooele County.

**Figure 2.11** Change in Total Permits for Construction of Dwelling Units, State of Utah vs. Tooele County, 2007-2013



Source: Utah Department of Workforce Services Economic Snapshot  
Accessed from: <http://jobs.utah.gov/wi/regions/county/tooele.html>,

**Figure 2.12** Change in total construction values, State of Utah vs Tooele County, 2007-2013

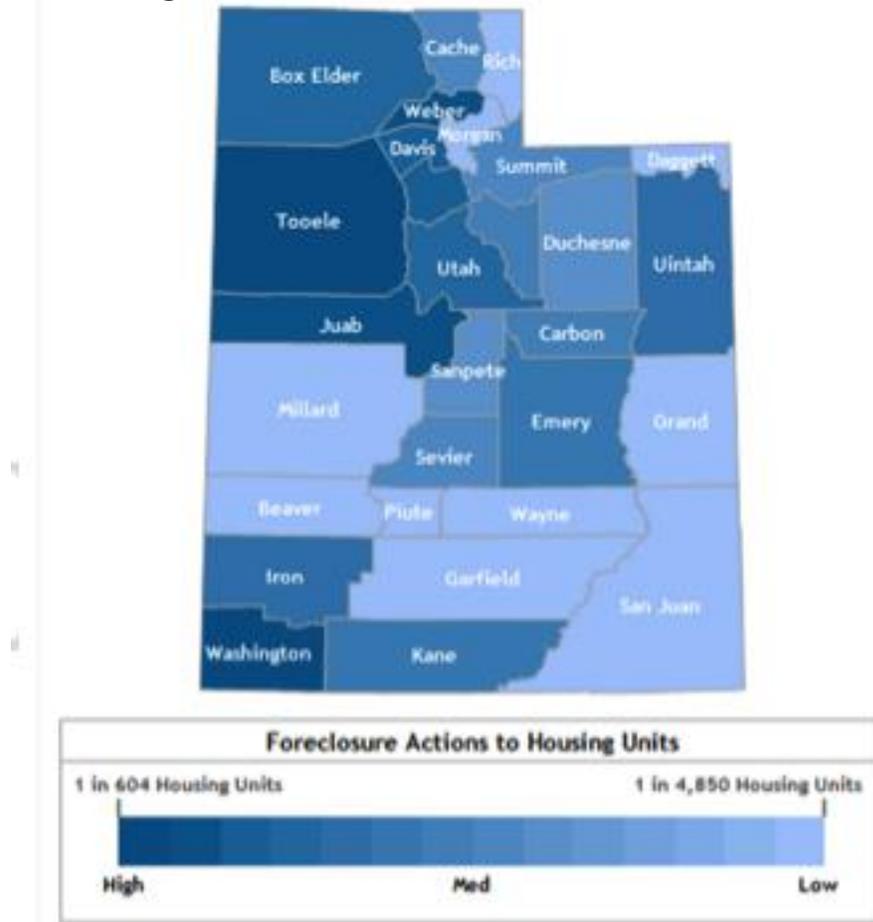


Source: Utah Department of Workforce Services Economic Snapshot  
 Accessed from: <http://jobs.utah.gov/wi/regions/county/tooele.html>,

### Foreclosure Rates

Tooele County is one of the top two counties in the state of Utah for foreclosures at a rate of one in every 619 homes. This compares to Utah at one in every 1010. Figure 2.13 shows the foreclosure rates for the 29 Utah Counties. Within Tooele County, the top three cities for foreclosure are Stockton, Tooele, and Grantsville. They have respective rates of one in 372, one in 577 and one in 1054.

**Figure 2.13** Total foreclosure rates for the 29 Utah Counties

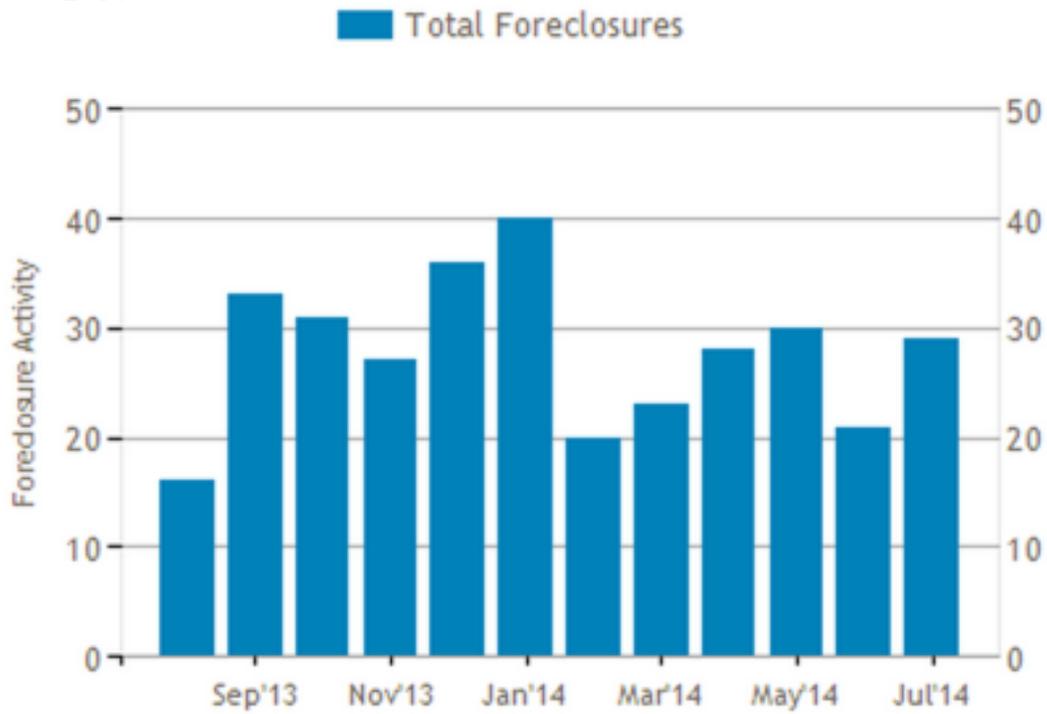


Source: Realty Trac

Accessed from:

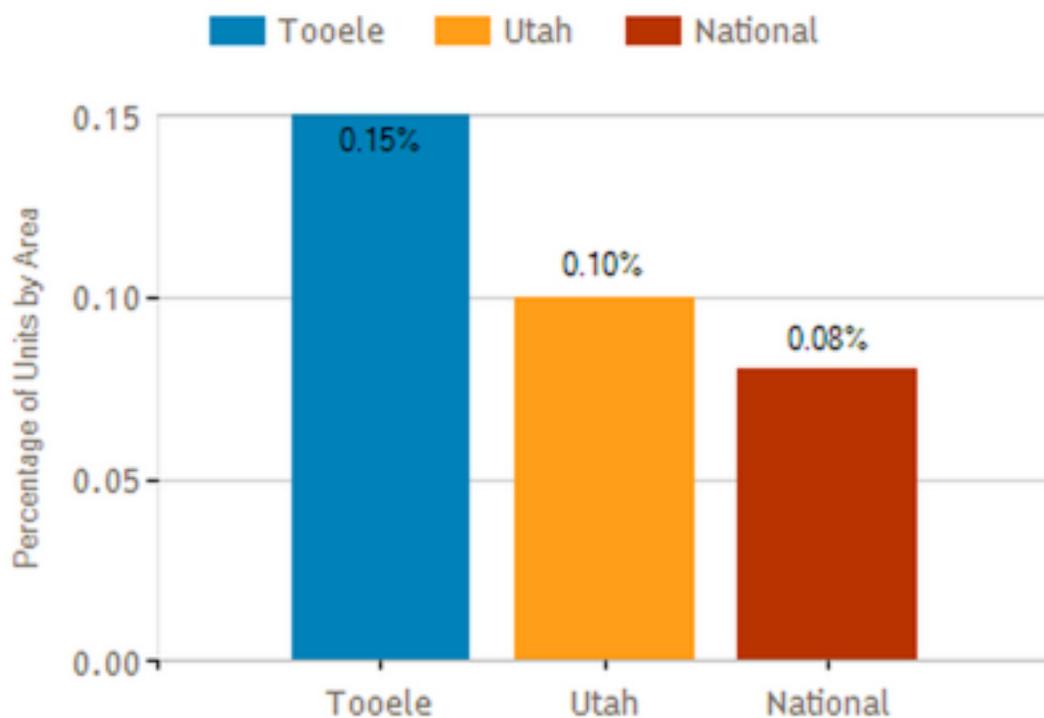
<http://www.realtytrac.com/statsandtrends/foreclosure trends/ut/tooele-county>

**Figure 2.14** Total foreclosures, Tooele County, Utah, August 2013-July 2014



Source: Realty Trac Accessed from:  
<http://www.realtytrac.com/statsandtrends/foreclosure trends/ut/tooele-county>

**Figure 2.15** Foreclosures in Tooele County, Utah compared Utah and U.S. rates



Source: Realty Trac Accessed from:  
<http://www.realtytrac.com/statsandtrends/foreclosure trends/ut/tooele-county>

Foreclosure rates in Tooele County reached their highest rate in January of 2014 (Figure 2.14). Figure 2.15 compares Tooele County data to Utah and United States statistics and shows foreclosures in Tooele as being higher than the Utah and national rates. Foreclosure Rates are therefore a concern in Tooele County and should be continually monitored to determine ways to reduce them since they impact health outcomes of Tooele County residents.

### Housing Assistance

It is critical to understand affordable housing options in Tooele County since

housing is linked to better health outcomes and lower recidivism rates. Tooele County Housing Authority (TCHA) provides assistance to residents for ways to obtain affordable housing. Their mission is to foster the availability of quality, affordable housing and related services using broad community resources (TCHA, 2014). They accomplish their mission via community collaboration, efficient resource management and expansion of funding sources. TCHA provides information on affordable housing along with various programs to assist with down payments or security deposits, home repairs, energy efficiency, and heating. Tooele County residents may apply for a Rural Single Family Housing Direct Loan sponsored by the United States Department of Agriculture (USDA). This program offers assistance to low-income buyers in rural areas such as Tooele County. TCHA also provides information on Section 8 Housing. Congress established the Section 8 Rental Assistance Program in 1974 which is the federal government's principal housing assistance program. The program provides help to low-income families, the elderly, and the disabled to rent affordable, safe, and sanitary housing. Initially, applicants may pay up to 40% of their adjusted monthly income toward rent and utilities. The Housing Authority pays the balance of the rent, up to a regulated maximum amount (TCHA, 2014).

### Rental Assistance

For the Project Based Rental Assistance, families are selected for participation in accordance with the preference guidelines outlined in the application. There is currently a wait list for this program with two apartment complexes participating in the Rental Assistance Program. These are the Heritage Path Apartments in Grantsville with 20

townhouse style units and the Westwood Mesa Apartments in Tooele with 22 townhouse style units. Rental rates are determined based on household income not to exceed 30% of gross income. The Housing Authority also owns 122 rental units throughout Tooele County and continually strives to develop affordable housing options. These are currently located in five apartment complexes, three in Tooele and two in Grantsville. The TCHA has a zero tolerance for drug and violent criminal activity on all Housing Authority-owned properties. They conduct a complete background check for all adults prior to admission to the program and evict any resident involved in such activity (TCHA, 2014). Other affordable housing options include Subsidized Family Housing at three apartment complexes in Tooele, Grantsville, and Wendover, rent for which is based on income. A non-subsidized low-income housing tax credit also offers set rents lower than the market rate at two apartment complexes in Tooele and one in Stansbury Park.

#### Senior Citizens and Disabled Persons Housing

Housing for Senior Citizens and disabled persons is also available. Senior Citizen/Disabled Subsidized Housing has five properties where rent is based on income and is not managed by the Tooele County Housing Authority. These consist of four properties in Tooele—Canyon Cove, Oquirrh View, Remington Park, and Somerset Gardens—and one property in Grantsville, Willow Creek. The senior population is projected to grow and many seniors are on a fixed income. Therefore, the elderly need to be included in plans for future expansion of affordable housing options along with options that provide access for the disabled.

### Rent-to-Own Opportunities

Tooele County offers rent to own housing programs. A 15-year rent-to-own program, the CROWN (credit-to-own) Program was created by Utah Housing Corporation (UHC) in 1993 to provide homeownership opportunities to working families across Utah. UHC has built over 313 CROWN homes around the state in partnership with local housing authorities and non-profit housing providers. UHC is an independent public corporation of the State of Utah. UHC's mission statement is “to serve Utah's housing needs through finance and innovation.” CROWN is one way UHC accomplishes this goal. CROWN addresses the needs of people who find that rent is too high, housing is not available, and/or poor credit prevents them from purchasing a home. There are currently two locations for this project—one in Tooele and one in Grantsville (TCHA, 2014). The income qualification is 53% of the Area Median Income (AMI) for Tooele County. The rent-to-own program is designed to place Tooele County residents into affordable homes.

### Wendover Development and Other Programs

Due to increasing demand, the Housing Authority is currently developing Townhomes that will contain two, three, and four-bedroom units in the area of Wendover known as Conley Acres. These are available for purchase through the low interest USDA Rural Development 502 loan program.

Home rehabilitation is offered for people needing home-repair assistance in Tooele, such as replacing a roof, making a home wheelchair-accessible, or replacing broken windows. This program has the goal of providing low interest loans to maintain

safe, decent, and livable conditions for low-income, disabled, and elderly homeowners. The income eligibility is households with a maximum of 80% of the median family income for Tooele County.

Weatherization Assistance is available for Tooele County residents through the Salt Lake Community Action Program (CAP). The purpose of the program is to make home improvements that increase energy efficiency. Applications can be obtained through the Head Start office in Tooele or Grantsville. There is also a Low Income Home Energy Assistance Program (LIHEAP), a United States federal social services program. LIHEAP also funds Energy Crisis Funding (ECF), which services individuals who are experiencing heating related crises. ECF provides assistance to low-income households that are in a crisis situation.

The Down Payment Assistance Program is funded by a Community Development Block Grant (CDBG) and has been established for first-time home buyers to obtain a home within the boundaries of Tooele County. There is also a Security Deposit Matching Program that is available due to a grant from American Express. Tooele County Housing Authority administers the program to assist low-income families with their security deposit. The family is encouraged to pay half of the deposit and can apply for assistance to pay the rest--TCHA matches up to \$500. The program is available to any eligible family and can be paid to any landlord in Tooele County. Families are responsible for half of the deposit and must sign a one-year lease. As this survey demonstrates, Tooele County offers a variety of affordable housing options, which is important component of a potential prison relocation.

## Housing Concerns from Community Survey

Housing quality was named among the top four issues that should be addressed in the Community Impact Survey conducted in Tooele County. It received 38% of the total vote at 195 responses. When asked what impact the proposed prison move would have on respondents' home value, the top response was *decrease* at 45% followed by *stay the same* at 29%. The remainder chose *unsure* at 18%, with *increase* getting 8%. Some of respondents' comments included that the prison wouldn't bother them unless they were to sell their home. They expressed concern about the value of their homes along with raising the cost of homeowner's insurance. Tooele County residents want to know how moving a prison to the area would potentially impact their home values. Based on the literature review presented above, the findings are mixed on the impact of a prison to home values.

Another impact of prisons on housing is hardships for the poor and elderly in rural communities. Land and rental values generally increase when a prison siting is authorized by a government entity. However, land values fall once the actual low number of locally gained jobs and associated homeowners becomes clear (Huling, 2002). This fluctuation places additional burdens on members of the community in poverty such as renters and elderly homeowners because rents tend to rise when real property prices rise. However, landlords rarely reduce rents during economic downturns. Therefore, the least socioeconomically advantaged members of the community become even more impoverished since their fixed costs increase while their income does not change. One example of this trend is in Crescent City, California, when a state prison opened in 1989 (Huling, 2002). For elderly homeowners, the rise and fall in prices during the period of speculative development ultimately devalued their homes (Gilmore, 2007).

Developers tend to build new housing in anticipation of new people to live in the host community and that locals with prison jobs will be able to afford new housing. However, today's prison employees often choose to not live in small rural towns, deciding instead to commute from urban and suburban areas. Speculation in housing development can therefore end in disaster for the speculator and for the town as happened in the prison towns of Avenal and Corcoran, California (Huling, 2002).

## **Recommendations**

### Planning Phase

During the planning phase, there are various opportunities to examine the affordable housing situation in Tooele County. Working with (TCHA) to review existing wait lists and demand for housing assistance and to determine ways to reduce the wait is one way to assess the current housing market and gaps in the system. One of these gaps is developing a strategy for creating a homeless shelter and halfway house in Tooele County. Research has shown that investing in these programs multiplies benefits and reduces recidivism. A next step is to determine where the demand is the greatest in both housing programs and geography. Development and/or purchase of additional affordable housing can help to provide sites to keep up with demand. Another method is to apply for grants to increase availability of affordable housing. This effort may include providing additional resources for the Tooele County Housing Authority.

Collaboration is key in any public health undergoing, especially with community agencies. The nonprofit agency Habitat for Humanity is not currently building homes in Tooele County. It should be approached, however, and asked to create a Tooele County presence. Family Promise is a nationwide organization that assists the homeless and

their families. It would also be a good addition to the various non-profits who are helping to improve the lives of Tooele County residents.

Education is also significant to increasing the reach of various housing programs. Working with the TCHA along with Head Start and local realtors and apartment complexes to develop information packets and seminars on how to apply for affordable housing would help to have local outreach to residents who need the expertise. The paperwork is sometimes daunting, so having someone to help inform people of the programs and assist with the completion may increase the amount of people who participate in affordable housing options. Also, the documents are currently only available in English, so if English is not your native language there are no translation services currently offered.

### Construction Phase

During this phase, there are opportunities to create information and outreach programs for potential new residents and determine ways to promote existing affordable programs with residents. The majority of affordable and subsidized housing programs have strict no drug policies, even for prior offenders. By working with drug rehabilitation programs including DORA to determine potential housing options for participants can help lead them to a successful transition and potential home ownership. Keeping the public informed during the construction phase is key—scheduling sessions about the prison project while offering information about affordable housing is one way to get the word out about various programs offered.

Since housing is a key determinant of health, it is significant to offer healthy options in the housing community. Examining the potential to implement a community

garden at apartments that offer affordable housing not only provides residents with fresh fruits and vegetables but also builds a sense of community.

The homeless population is a vulnerable demographic, and hopefully there will be funds to move forward on a homeless shelter in Tooele County. Collaborating with the Road Home and Fourth Street Clinic in Salt Lake City on ways to assist this population will help on outreach to the homeless.

### Operation Phase

Once the prison is built and running, it is important to continue to monitor affordable housing availability and the effectiveness of existing programs. This will help to ensure that the supply of affordable housing keeps up with the demand. People can only apply for programs if they are aware of them and know the process for applying. Capturing success stories and testimonials for videos and ways to help others apply for assistance is one method of outreach. Working with local nonprofits and agencies to ensure that they have the info on affordable housing is another way to provide the info to the community and those most at need for assistance.

Since housing is a key component of reducing recidivism, working with UDOC on housing options for released prisoners is important. Providing a halfway house in Tooele County is a potential way to provide housing for released inmates without a place to go. A homeless shelter will need volunteers to keep it running. Collaborating with local nonprofits and faith organizations to volunteer at the homeless shelter will help to get the community involved in providing services for the homeless.

**Summary of Recommendations:**

Planning Phase	Construction Phase	Operation Phase
<p>Work with TCHA to review existing wait lists and demand for housing assistance and determine ways to reduce</p> <p>Establish strategy for creating a Homeless shelter and halfway house in Tooele County</p> <p>Review geography where demand is the greatest and consider development and/or purchase of additional affordable housing and apply for grants to increase availability of affordable housing including additional resources for TCHA</p> <p>Collaborate with nonprofit agencies such as Habitat for Humanity and Family Promise to build homes in Tooele County and offer support for the homeless</p> <p>Work with TCHA, Head Start and local realtors, apartment complexes to develop information packets and sessions on how to apply for affordable housing</p>	<p>Create information and outreach programs for potential new residents and determine ways to promote existing affordable programs with residents</p> <p>Work with drug rehabilitation programs including DORA to determine potential housing options for participants</p> <p>Hold sessions for residents on affordable housing and info about prison project</p> <p>Examine potential of implementing a community garden at apartments that offer affordable housing</p> <p>Brainstorm with the Road Home and 4<sup>th</sup> street Clinic in Salt Lake City on ways to assist the homeless population</p>	<p>Continue to monitor affordable housing availability and effectiveness of existing programs</p> <p>Capture success stories and testimonials for videos and ways to help others apply for assistance</p> <p>Work with UDOC on housing options for released prisoners and outreach to prison families on affordable housing options</p> <p>Collaborate with local nonprofits, faith based organizations and residents to volunteer at homeless shelter</p> <p>Continue community outreach on affordable housing programs</p>

TCHA: Tooele County Housing Authority; DORA: Drug Offender Reform Act; UDOC: Utah Department of Corrections

### **SECTION III SUMMARY**

Vulnerable Populations should be considered in any move of a prison to a host community. These include children, elderly, disabled persons, homeless persons, persons released from prisons and people in poverty. There are currently two Indian Reservations with Goshute Tribes located in Tooele County. In the event that the prison is relocated to the Skull Valley area, the Indian population should be taken into account to determine how it may impact their land and health outcomes.

Westminster College conducted an HIA on the potential health impacts of relocating the Utah State Prison from Draper to Tooele County. This HIA identified nine areas of potential impact: healthcare burden, mental health, infectious disease, chronic disease, public services and utilities, employment, crime, air quality, and housing. Findings suggest that relocating the prison is likely to negatively impact areas such as healthcare burden and mental health, but have minimal effect on other areas like infectious disease, crime rate, and employment. This HIA presents a framework to assess the health impacts associated with a prison relocation project. Findings can raise awareness among decision makers regarding these impacts.

## References

- Abrams, K. S., Lyons, W., Cruz, R., Dahbura, A., deHaven-Smith, L., Johnson, P., Kay, D.Scher, R. (1992). Issues in siting correctional facilities: An informational brief. Issues in siting correctional facilities: An informational brief [Online]. Available: [www.nicic.org/pubs/1992/010591.pdf](http://www.nicic.org/pubs/1992/010591.pdf)
- Agency for Toxic Substances and Disease Registry (ATSDR). (2007). Toxicological Profile for Benzene. U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
- American Bar Association (ABA), (2010). Standards of treatment of prisoners. Retrieved from [http://www.americanbar.org/publications/criminal\\_justice\\_section\\_archive/crimjust\\_standards\\_treatmentprisoners.html](http://www.americanbar.org/publications/criminal_justice_section_archive/crimjust_standards_treatmentprisoners.html).
- ATSDR, (1992). Toxicological Profile for 1,3-Butadiene. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1992.
- Arditti, J., Lambert-Shute, J., and Joest, K. (2003). Saturday Morning At The Jail: Implications Of Incarceration For Families and Children. *Family Relations*, 52.
- Beale, C. L., (1993). Prisons, Population, and Jobs in Non-Metro America. *Rural Development Perspectives*.
- Beale, C. L., (1996). Rural prisons: An update. *Rural Development Perspectives*, 11, 25-27.
- Belenko S (1998). Behind bars: substance abuse and America's prison population. Center on Addiction and Substance Abuse. Retrieved September 2014: [http://www.casacolumbia.org/absolutenm/articlefiles/379-Behind% 20Bars.pdf](http://www.casacolumbia.org/absolutenm/articlefiles/379-Behind%20Bars.pdf).
- Besser, T. and Hanson, M., (2004). Development of Last Resort: The Impact of New State Prisons on Small Town Economies in the United States. *Journal of the Community Development Society*. 35 (2): 1-16.
- Besser & Hanson . (2004). The development of last resort: the impact of new state prisons on small town economies. *Journal of the Community Development Society*. 35, 1-16.
- Binswanger, I.A., Krueger, P.M., & Steiner, J.F. (2009). Prevalence of chronic and medical conditions among jail and prison inmates in the USA compared with the general population. *Journal Of Epidemiology & Community Health*, 63(11), 912-919. doi:10.1136/jech.2009.090662.

- Blankenship, S.E. & Yanarella, E.J. (2004). Prison recruitment as a policy tool of local economic development: a critical evaluation. *Contemporary Justice Review*, 7, 183-198.
- Bureau of Justice Statistics, US Department of Justice. Bureau of Justice Statistics. 2004. Retrieved September 2014: <http://www.bjs.gov/content/pub/pdf/mpp.pdf>
- Bureau of Justice Statistics, US Department of Justice (2012). *Bureau of Justice Statistics*. Retrieved September 2014: <http://www.ojp.usdoj.gov/bjs/prisons.htm>
- California Department of Corrections and Rehabilitation, (2010). Presented in *Utah's Recidivism Rate in Light of National Trends*, 2012.
- Chapman, D., Perry, G., Strine, T. (2005). The Vital Link Between Chronic Disease and Depressive Disorders. *Preventing Chronic Disease*. 2(1):A14.
- [CDC] Centers for Disease Control Prevention (2011). Influenza Outbreaks at Two Correctional Facilities — Maine, MMWR / April 6, 2012 / Vol. 61 / No. 13
- [CDC] Centers for Disease Control Prevention (2005). Updated US Public Health Services guidelines for the management of occupational exposures to HIV and recommendations for postexposure prophylaxis. MMWR Morbidity Mortality Weekly Report 54:1-17.
- [CDC] Centers for Disease Control Prevention (2001). Substance Abuse Treatment for Drug Users in the Criminal Justice System. August 2001. Retrieved September 2014: <http://www.cdc.gov/idu/facts/cj-satreat.pdf>
- CDC, 2013. Mental Health Basics, CDC Website, accessed from: <http://www.cdc.gov/mentalhealth/basics.htm>
- Cohen, A., et al. (2004). Mortality Impacts Of Urban Air Pollution. In: Ezzati, M. Et Al., Eds. *Comparative Quantification Of Health Risks: Global And Regional Burden Of Disease Attributable To Selected Major Risk Factors*. Geneva, World Health Organization: 1353–1434.
- Condon, L., Hek, G., & Harris, F. (2007). A review of prison health and its implications for primary care nursing in England and Wales: the research evidence. *Journal of Clinical Nursing*, 16, 1201-1209.
- Culhane, D. , Metraux, S., and Hadley, T. (2002) Public Service Reductions Associated with Placement of Homeless Persons with Severe Mental Illness in Supportive Housing, *Departmental Papers (SPP)* (2002).

- Currie, J. and Tekin, E. (2011). Is There A Link Between Foreclosure And Health? Working Paper 17310, National Bureau of Economic Research. Accessed from: <http://www.nber.org/papers/w17310>
- Daniel, W., (1991). Prisons and crime rates in rural areas: The case of Lassen County. *Humboldt Journal of Social Relations*, 17, 129-170.
- Department of Justice, (1994). Information Brief, Issues in Siting Correctional Facilities. US Department of Justice, National Institute of Justice. Washington, D.C.: Adapted from *Impact of Correctional Facilities on Land Values and Public Safety*, completed by the Florida Atlantic University Florida International University (FAU-FIU) Government Center for Environmental and Urban Problems.
- Department of Labor, Occupational Safety and Health Administration (1991). 29 CFR Part 1910.1030. Occupational exposure to blood borne pathogens: final rule. Federal Register 56:64004-182.
- Division of Substance Abuse and Mental Health Annual Report, (2013). Accessed from: <http://dsamh.utah.gov/data/annual-reports/>
- Ekstedt, Jackson, Appiahene-Gyampfi, Tsang & Young (1996). Rethinking community resistance to prison siting: Results from a community impact assessment. *Canadian Journal*.
- Fox, A.D., Anderson, M. R., Bartlett, G., Valverde, J., Starrels, J.L. & Cunningham, C.O. (2014). Health outcomes and retention in care following release from prison for patients of an urban post-incarceration transitions clinic. *Journal of Health Care For the Poor & Underserved*, 25(3). 1139-1152
- EPA, (2002) Health assessment document for diesel engine exhaust. Prepared by the National Center for Environmental Assessment, Washington, DC, for the Office of Transportation and Air Quality; EPA/600/8-90/057F. Available from: National Technical Information Service, Springfield, VA; PB2002-107661, and <<http://www.epa.gov/ncea>>.
- EPA, (2004). Final Regulatory Analysis: Control of Emissions from Nonroad Diesel Engines.
- EPA, (2007). Control of Hazardous Air Pollutants from Mobile Sources: Regulatory Impact Analysis.
- EPA, (2009). Integrated Risk Information System (IRIS) on Benzene. National Center for Environmental Assessment, Office of Research and Development, Washington, DC.

- EPA, (2009). IRIS on 1,3-Butadiene. National Center for Environmental Assessment, Office of Research and Development, Washington, DC.
- EPA, (2011). National Emission Inventory, 2011. Accessed From: <http://www.epa.gov/ttn/chief/net/2011inventory.html>
- EPA, (2012). Health Effects of Criteria Pollutants. Last Update 4-20-2012, Accessed from: <http://www.epa.gov/airquality/urbanair/>
- EPA, (2012). Health Effects of Ozone. Accessed From: <http://www.epa.gov/air/ozonepollution/health.html>
- EPA, (2013). Air Quality Index Report. Accessed from: [http://www.epa.gov/airdata/ad\\_rep\\_aqi.html](http://www.epa.gov/airdata/ad_rep_aqi.html)
- EPA, (2013) Particulate Matter (PM). Accessed From: <http://www.epa.gov/airquality/particlepollution/>
- EPA, (2014). Air Quality Index: A Guide to Air Quality and Your Health. Accessed from: [http://www.epa.gov/airnow/aqi\\_brochure\\_02\\_14.pdf](http://www.epa.gov/airnow/aqi_brochure_02_14.pdf)
- EPA, (2014) Daily Mean PM2.5 Concentrations from 01/01/12 to 12/31/13. US EPA AirData. Accessed from <http://www.epa.gov/airdata>
- EPA, (2014). Number of Days 8 hr Ozone Daily Max >.075 ppm 2000-2014 in Tooele County. Accessed from: <http://www.epa.gov/airdata>
- Farmer, Paul (2002). "The House of the Dead: Tuberculosis and Incarceration." Pp. 239–57 in *Invisible Punishment: The Collateral Consequences of Mass Imprisonment*, edited by Marc Mauer and Meda Chesney-Lind. New York: New York Press.
- Farrington K. & Parcells, R. (1991). Correctional Facilities and community crime rates: alternative hypotheses and competing explanations. *Humboldt Journal of Social Relations*, 17, 17-127.
- Gilmore, R. (2007) *Prisons, Surplus, Crisis, and Opposition in Globalizing California*. University of California Press.
- Rogers, G.O. & Haines, M. (1987). Local impact of a low-security federal correctional institution. *Federal Probation*. 51: 28-34.
- Hammett TM, Harmon MP, Rhodes W (1997). The burden of infectious disease among inmates of and releases from US correctional facilities. *Am J Public Health* 2002;92:1789-94.

- Hawes, J. (1985). Cities with prisons: Do they have higher or lower crime rates? A special report to Senator Robert Presley, Chair, Joint Committee on Prison Construction and Operations, prepared by the California Senate Office of Research.
- Holley, W., (2008). Assessing the Impact of Prison Siting on Rural Economic Development. Dissertation submitted to Graduate faculty at George Mason University.
- Hooks, G., Mosher, C., Rotolo, T., & Lobao, L. (2004). The prison industry: Carceral expansion and employment in U.S. counties, 1969-1994. *Social Science Quarterly*, 85, 37- 57.
- Houle, J. and Light, M. (2014). The Home Foreclosure Crisis and Rising Suicide Rates, 2005 to 2010. *American Journal of Public Health*: June 2014, Vol. 104, No. 6, pp. 1073-1079. doi: 10.2105/AJPH.2013.301774
- Hoyman, M. (2002). Prisons in North Carolina: are they a viable strategy for rural communities? *International Journal of Economic Development*, 4, 1-35.
- Huling, T. (2002). Building A Prison Economy In Rural America. From Invisible Punishment: The Collateral Consequences of Mass Imprisonment. Marc Mauer and Meda Chesney-Lind, Editors. The New Press.
- James, D. & Glaze, L. (2006). Mental Health Problems of Prison and Jail Inmates. Washington D.C.: U.S. Department of Justice Office of Justice Programs.
- Jannetta, J. and Lachman, P. (2011). Promoting Partnerships Between Police and Community Supervision Agencies: How Coordination Can Reduce Crime and Improve Public Safety. U.S. Department of Justice: Washington, D.C.
- Jin, R., Shah, C., & Svoboda, T. (1995). The impact of unemployment on health: A review of the evidence. *Canadian Medical Association Journal*, 153, 529-540.
- Justice Policy Institute: Petteruti, A. Tevah, A. Walsh, N. and Ziedenberg, J. (2007). Housing and Public Safety Brief. Washington, D.C. Accessed from: [http://www.justicepolicy.org/images/upload/07-11\\_REP\\_HousingPublicSafety\\_AC-PS.pdf](http://www.justicepolicy.org/images/upload/07-11_REP_HousingPublicSafety_AC-PS.pdf)
- Kessler, R., Chiu, W., Demler, O., Walters, E. (2005). Prevalence, Severity, and Comorbidity of 12-Month DSM-IV Disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry* 62:617–627.
- Kinner, S.A., and Wang, E.A. (2014). The case for improving the health of ex-prisoners. *American Journal of Public Health* 104 (8), 1352-1355.

- Lacasana, M., Esplugues, A. & Ballester, F., (2005). Exposure To Ambient Air Pollution And Prenatal And Early Childhood Health Effects. *European Journal of Epidemiology*, 20 (2): 183:99.
- Langan, P. and Levin, D. (2002). Recidivism of Prisoners Released in 1994. Bureau of Justice Statistics. Accessed from:  
<http://www.bjs.gov/index.cfm?ty=pbdetail&iid=1134>
- Larney, S., Mahowald, M., Scharff, N., Flanigan, T., Beckwith, C., & Zaller, N. (2014). Epidemiology of Hepatitis C Virus in Pennsylvania State Prisons, 2004–2012: Limitations of 1945–1965 Birth Cohort Screening in Correctional Settings, 104(6). (2014, June 7).
- Martin, R. (2000). Perceptions about prison construction: Why not in my backyard? *The Prison Journal*, 80, 265-294.
- Martin, R. & Myers, D. (2005). Public response to prison siting: perceptions of impact on crime and safety, *Criminal Justice and Behavior*, 32, 143-171.
- Maruschak, L. (2008). Medical problems of prisoners. Retrieved from  
<http://www.bjs.gov/index.cfm?ty=pbdetail&iid=1097>.
- Massoglia, M (2008). *Journal of Health and Social Behavior* 2008, Vol 49 (March): 56–71.
- Mears, D.P & Cochran, J.C (2012). U.S. prisoner reentry Health care policy in international perspective: Service gaps and the moral and public health implications. *Prison Journal*, 92(2), 175-202
- MGT of America, (2014). Master Plan for the Potential Relocation of the Draper Prison Preliminary Draft Report.
- Mitka, M. (2004). Aging prisoners stressing health care system. *JAMA: Journal Of The American Medical Association*, 292(4), 423-424.
- Murphy, G., & Athanasius, J. (1999) The effect of unemployment on mental health. *The Journal of Occupational and Organizational Psychology*, 72, 83-99.
- Murray, C. and Lopez, A. (1996). *The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries and Risk Factors in 1990 and Projected to 2020*. Geneva, Switzerland: World Health Organization.
- National Commission on Correctional Health Care. (2002). The Health Status of Soon-to-be- Released Inmates. Chicago, IL: National Commission on Correctional Health Care. National Institute of Justice.

North Tooele County Fire Department, (2010) Web site accessed from: <http://ntcfd.com>

Northeast States for Coordinated Air Use Management (NESCAUM), (2004).  
*Evaluating the Occupational and Environmental Impact of Nonroad Diesel  
Equipment in the Northeast.* Accessed from:  
<http://www.nescaum.org/topics/diesel-vehicle-emissions>

Pettit, Becky and Bruce Western (2004). "Mass Imprisonment and the Life Course: Race and Class Inequality in U.S. Incarceration." *American Sociological Review* 69:151–69.

QPR Institute, (2014). QPR Gatekeepers by State. Accessed from:  
<http://www.qprinstitute.com/>

QPR Training (2014). Suicide Data provided by the Tooele County Health Department and the Student Health and Risk Prevention (SHARP) Survey.

Raphael, S., & Stoll, M.A. (2004). The effect of prison releases on regional crime rates. *Brookings-Wharton Papers on Urban Affairs.* 207-255.

Realtor Magazine, (2007). Absorption Rates Key to Successful Pricing. Accessed from  
<http://www.realtor.org/RMODaily.nsf/pages/News2007111404>

Realty Trac (2014). Utah Foreclosure Actions to Housing Units. Accessed from:  
<http://www.realtytrac.com/statsandtrends/foreclosuretrends/ut/tooele-county>

Reentry Policy Council, (2005). The Report of the Re-Entry Policy Council: Charting the Safe and Successful Return of Prisoners to the Community. Justice Center, Council of State Governments. Accessed From:  
<http://csgjusticecenter.org/reentry/publications/the-report-of-the-re-entry-policy-council-charting-the-safe-and-successful-return-of-prisoners-to-the-community/>

Rogers, K. (2014). Food desert. *Encyclopedia Britannica.* Retrieved from  
<http://eds.a.ebscohost.com.ezproxy.westminstercollege.edu/eds/detail/detail?sid=2d0a3bc8-79bb-4127-b791-6c8da15282c5@sessionmgr4004&vid=2&hid=4113&bdata=JnNpdGU9ZWRzLWxpdmU=#db=ers&AN=87324136>.

Rogers, W.B. & Seigenthaler, C.P. (2001). Correctional health care as a vital part of community health. *Journal of Ambulatory Care Management,* 45-50.

Rold, W.J., (2008). Thirty years after Estelle v Gamble. A legal retrospective. *Journal of Correctional Health* 14(1), 11-20

- Salt Lake Police Department (SLCPD), (2013). New Study Ranks Utah Collaboration Between CIT Mental Health Courts Tops in Nation. Accessed from: <http://slcpd.com/new-study-ranks-utahs-collaboration-between-cit-mental-health-courts-tops-in-nation/>
- Skolnick, A.A. (1998). Looking behind bars for key to control of STDs. *Journal of the American Medical Association*, 279, 97-98.
- Social Exclusion Unit (2002). Reducing re-offending by ex-prisoners. London: Social Exclusion Unit.
- Substance Abuse and Mental Health Services Administration (SAMHSA), (2014). National Survey on Drug Use and Health. U.S. Department of Health and Human Services.
- Substance Abuse and Mental Health Services Administration (SAMHSA), (February 28, 2014). The NSDUH Report: State Estimates of Adult Mental Illness from the 2011 and 2012 National Surveys on Drug Use and Health. *Center for Behavioral Health Statistics and Quality*. Rockville, MD.
- SAMHSA (2013). Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2011, revised October 2013.
- Steadman, F.C., Osher, P.C., Robbins et al. (2009). Prevalence of Serious Mental Illness Among Jail Inmates. *Psychiatric Services*; 60: 761-765.
- Teplin, L.A., (1990). The Prevalence of Severe Mental Disorder Among Male Urban Jail Detainees: Comparison with Epidemiologic Catchment Area Program. *American Journal of Public Health*; 80:663-669.
- The Pew Charitable Trusts (2013). State correctional health care expenditures. Retrieved from [http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes\\_assets/2014/PCTCorrectionsHealthcareBrief050814datatablespdf.pdf](http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2014/PCTCorrectionsHealthcareBrief050814datatablespdf.pdf).
- Thies, J. (2001). The 'big house' in a small town: The economic and social impacts of a correctional facility on its host community. *The Justice Professional*, 2, 221-237.
- Tooele County Emergency Management (2014) Web site accessed from: [http://tceem.org/?page\\_id=43](http://tceem.org/?page_id=43).
- Tooele City Fire Department Web Site, (2010) Accessed from: <http://www.tooelefire.org/Default.aspx>.
- Tooele County Housing Authority Web Site, (2014). Accessed from: <http://www.co.tooele.ut.us/housing.htm>

- Tooele County Health Department (2012). Tooele County Community Health Improvement Plan 2012-2017.
- Tooele County School District, (2014). Student Health and Risk Prevention (SHARP) Survey, 2013.
- Treatment Advocacy Center, (2010). More Mentally Ill Persons are in Jails and Prisons than Hospitals: A survey of the States. Accessed from <http://www.tacreports.org/diversion-study/utah>
- Treatment Advocacy Center, Stettin, B., Frese, F. & Lamb, R. (2013). Mental Health Diversion Practices: A Survey of the States.
- UCLA Health Impact Clearinghouse Learning and Information Center Website, (2014). Stages of HIA. Accessed from: <http://www.hiaguide.org/methods-resources/methods/phases-hia-1-screening>
- U.S. Census Bureau (2012). American Factfinder community survey, Tooele County, UT. Retrieved from [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=EEO\\_10\\_5YR\\_EEOALL1W&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=EEO_10_5YR_EEOALL1W&prodType=table)
- U.S. Census Bureau (2014). American Community Survey Data 2008-2012.
- Utah Department of Health, Tuberculosis Program (2014). Information retrieved September 2014.
- U.S. Department of Health and Human Services, 1999. *Mental Health: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services; Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.
- U.S Department of Health and Human Services. HRSA data retrieved from <http://ahrf.hrsa.gov/arfdashboard/ArfGeo.aspx>
- Utah Association of Realtors, (2013). All County Quarterly Reports. Accessed from: <http://utahrealtors.com/news-center/housing-statistics/quarterly-reports/>
- Utah Association of Realtors, (2014). Accessed from: <http://utahrealtors.com/news-center/housing-statistics/state-summary/>
- Utah Department of Corrections Planning and Research Bureau, (2013). Utah Department of Health, IBIS, (2014). Current Cigarette Smoking by Local Health District, Utah Adults Aged 18 and Older, 2012 Accessed from: [http://ibis.health.utah.gov/indicator/view/CigSmokAdlt.LHD\\_LLCP.html](http://ibis.health.utah.gov/indicator/view/CigSmokAdlt.LHD_LLCP.html)

- Utah Department of Workforce Services (2014) Economic Snapshot. Accessed from:  
<http://jobs.utah.gov/wi/regions/county/tooele.html>
- Utah Division of Air Quality Annual Monitoring Plan (2014). Accessed from:  
<http://www.airmonitoring.utah.gov/network/AnnualMonitoringPlan2014.pdf>
- Utah Homes.com (2014) Current stock of homes—MLS data. Accessed from:  
[http://www.utahhomes.com/real\\_estate/Utah/Utah.htm](http://www.utahhomes.com/real_estate/Utah/Utah.htm)
- Utah Substance Abuse Advisory Council, (2014). Substance Abuse Statistics Accessed from: <http://www.usaav.utah.gov/>
- Utah Water Department, (2014). Jordan Valley Water Conservancy District Water Deliveries, 2013.
- Valley Mental Health, (2014) Accessed From: <http://www.valleycares.com/>
- Vestal, C. (2013). States missing out on millions in Medicaid for prisoners. Retrieved from <http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2013/06/25/states-missing-out-on-millions-in-medicaid-for-prisoners>
- Wang, E., Hong, C., Samuels, L., Shavit, S., Sanders, R., & Kushel, M. (2010). Transitions clinic: Creating a community based model of health care for recently released California prisoners. *Public Health Reports*, 125(2), 171-177
- Weiss, E. Gender differences in Internet use patterns and Internet application preference. A two-sample comparison. (2000). *CyberPsychology & Behavior*, 2000, 167-178.
- White, S., Schooley, S. & Dobson, N. (2010). Lake Oswego to Portland Transit Project: Health Impact Assessment. Oregon Public Health Institute, U.S. Centers for Disease Control and Prevention National Network of Public Health Institute.
- World Health Organization, (2001). *Strengthening Mental Health Promotion*. Geneva, World Health Organization (Fact sheet no. 220).
- World Health Organization, (2003). Health Aspects of Air Pollution with Particulate Matter, Ozone and Nitrogen Dioxide: Report on a WHO Working Group. Germany, Bonn.
- World Health Organization, (2013). Mental Health Action Plan 2013-2020. *Geneva, Switzerland: The WHO Document Production Services*. Accessed from: [http://www.who.int/mental\\_health/publications/action\\_plan/en/](http://www.who.int/mental_health/publications/action_plan/en/)

World Health Organization, (2014). Achieving health related MDGs. It takes a workforce! Retrieved from [http://www.who.int/hrh/workforce\\_mdgs/en/](http://www.who.int/hrh/workforce_mdgs/en/)

World Health Organization (2014). Ambient (Outdoor) Air Quality And Health, Fact Sheet Number 313, Updated March 2014. Accessed From: <http://www.who.int/mediacentre/factsheets/fs313/en/>

Appendix A  
Community Survey

1. Are you a Tooele County resident and/or do you work in Tooele County?
  - a. Yes b. No (only yes responses continue survey)
  
2. Which community do you live in?
  - a. Grantsville      b. Lake Point      c. Rush Valley      d. Stansbury Park
  
  - e. Stockton      f. Tooele      g. Erda      h. Other

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3. Are you:
  - a. Male b. Female
  
4. What is your age range?
  - a. <25      b. 25-35      c. 36-45      d. 46-55      e. >55
  
5. Do you know where the state prison is located currently?
  - a. Yes b. No
  
6. Have you heard about the potential to relocate the state prison?
  - a. Yes (Where?) \_\_\_\_\_ b. No
  
7. Would you support a decision to relocate the prison from Salt Lake County (Draper) to Tooele County (Grantsville)?
  - a. Yes b. No
  
8. If the prison was relocated from Salt Lake County to Tooele County, what are key issues that you feel should be addressed (please select up to 3 issues)
  - a. Housing quality      b. Jobs and economic development      c. Traffic      d. Crime prevention
  
  - e. The look of a prison facility      f. Air quality      g. Infectious disease
  
9. If the prison were to be constructed and operated in Tooele County would you fear for your personal safety?
  - a. Yes      b. No      c. Unsure
  
10. What effect do you think it would have on local business:
  - a. Increase      b. Decrease      c. Stay the same      d. Unsure
  
11. Do you believe the value of your home would:
  - a. Increase      b. Decrease      c. Stay the same      d. Unsure

12. Do you believe that the quality of your life would:
- a. Increase
  - b. Decrease
  - c. Stay the same
  - d. Unsure
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# Tooele County Area General Resource List

Phone: 2-1-1 Website: [www.211ut.org](http://www.211ut.org) Fax: (801) 746-2880



## EMERGENCIES (24 HOURS)

Life Threatening .....	9-1-1
Crisis/Suicide Prevention .....	435-882-5600
National Suicide Prevention Lifeline.....	1-800-273-TALK (8255)
Poison Control .....	1-800-222-1222

## ADULT & CHILD ABUSE/NEGLECT

Adult Protective Services (APS) (Reporting).....	1-800-371-7897
(Tooele Office, Wed only).....	435-833-7358
Division of Child and Family Services .....	
Abuse Reporting, Intake, & all other needs.....	1-800-678-9399
Family Support Center, Inc. (Crisis nursery) (Salt Lake).....	(801) 255-6881
Guardian Ad Litem/ Court Appointed Special Advocate (CASA).....	(801) 233-9966
Tooele County Children's Justice Center.....	435-843-3440

## CHILD/YOUTH/FAMILY SERVICES

Boys and Girls Club.....	435-843-5719
Child Care Resource & Referral – Metro.....	1-866-GET-HUGS (438-4847)
DDI Vantage.....	435-833-0725
Family Resource Facilitator (Valley Mental Health) .....	435-843-3520
Head Start .....	435-882-6743
National Runaway Switchboard.....	1-800-621-4000
The Nine Line .....	1-800-999-9999
Tooele County School District.....	435-833-1900
Utah State University, Tooele Branch Campus.....	435-882-6611
Youth and Families with Promise (YFP) .....	435-843-2354
Youth Services, Salt Lake County Division of.....	385-468-4500

## CLOTHING/HOUSEHOLD ITEMS/FURNITURE

Deseret Industries (DI).....	435-882-7100
Tooele County Relief Services.....	435-843-9955

## COURTS

3 <sup>rd</sup> District Court .....	435-833-8000
Juvenile Court.....	435-833-8040
Justice Courts .....	
Grantsville.....	435-884-6271
Stockton.....	435-882-3877
Tooele County.....	435-843-3230
Wendover Precinct / City .....	435-665-7000

## DOMESTIC VIOLENCE

Domestic Violence and Sexual Assault Victim Advocacy.....	435-882-6888
Victim/Witness Coordinator.....	435-843-3429
Domestic Violence Information Line.....	1-800-897-LINK (5465)
Domestic Violence Treatment (Valley Mental Health) .....	435-843-3520
Office of Crime Victim Reparations .....	1-800-621-7444
Pathways, Department of Child & Family Services (Shelter) .....	435-843-1677
Crisis Line.....	1-800-833-5515
Tooele City Domestic Violence Victim Advocacy .....	435-882-8900 ext 24
Utah Legal Services .....	1-800-662-4245
VINE (Victim Information & Notification Everyday) .....	1-877-884-8463

## EMPLOYMENT/JOB TRAINING

(See also: "Employment: Temporary" in the Yellow Pages)

Deseret Industries (DI).....	435-882-7100
Division of Vocational Rehabilitation Services .....	435-882-1086
Job Corps.....	1-800-733-5627
LDS Employment Services .....	435-882-8646
Labor Commission.....	1-800-530-5090
Anti-discrimination and labor issues .....	1-800-222-1238
Tooele Applied Technology College (ATC).....	435-248-1800
Utah Department of Workforce Services (DWS)	
Tooele Employment Center .....	435-833-7310
Valley Mental Health (for people with mental health problems)	
New Reflection Clubhouse.....	435-882-4845
Youth Employ-Ability Services (YES).....	435-843-7324

## FINANCIAL COUNSELING

AAA Fair Credit Foundation .....	1-800-351-4195
American Credit Foundation.....	1-800-259-0601
Extension Services, USU.....	435-277-2400

## FOOD ASSISTANCE PROGRAMS

Community Food Co-Op of Utah .....	1-866-959-2667
DROPS/Mobile Food Pantry, Utah Food Bank .....	2-1-1
Food Stamps, Utah Department of Workforce Services (DWS)	
Eligibility.....	1-866-435-7414
Grantsville First Baptist Church .....	435-884-3737
Grantsville Neighborhood Food Center .....	435-884-4452
Home Delivered Meals/Congregate Meals (Senior Citizens)	
Tooele County Division of Aging & Adult Services.....	435-882-2870
Grantsville Center .....	435-884-3446
Tooele Senior Center .....	435-882-2870
Wendover Senior Center.....	435-665-7719
Tooele County Food Bank .....	435-843-4780
Tooele County Relief Services .....	435-843-9955
Wendover Christian Fellowship.....	775-385-8918
WIC (Women, Infants & Children), Tooele County Health Department.....	435-277-2320

## GOVERNMENT SERVICES

Division of Motor Vehicles (DMV).....	1-800-DMV-UTAH (368-8824)
Tooele Office .....	435-843-3110
Drivers License Division .....	1-800-722-0038
Tooele Office .....	435-843-8046
Grantsville City.....	435-884-3411
Tooele City .....	435-843-2100
Animal Control .....	435-882-4607
Tooele County .....	435-843-3100
Assessor .....	435-843-3110
Clerk .....	435-843-3140
Emergency Management.....	435-833-8100
Recorder .....	435-843-3180
Treasurer.....	435-843-3190
Landfill .....	435-843-4785
United States Postal Service (USPS) .....	1-800-ASK-USPS (275-8777)
Wendover City.....	435-665-7030

## HEALTH CARE/HOSPITALS/CLINICS

Caring Foundation for Children (dental insurance).....	1-888-589-5437
Children with Special Health Care Needs.....	1-800-829-8200
Community Nursing Services (CNS).....	435-882-3913
Eye Care for Kids Foundation .....	(801) 255-8525
HIPUTAH (Utah Comprehensive Health Insurance Pool).....	1-800-705-9173
IHC Home Care (Salt Lake City).....	1-800-527-1118
Maliheh Free Clinic .....	(801) 266-3700
Medicaid, CHIP, PCN, and UPP	
Eligibility.....	1-866-435-7414
Children's Health Insurance Program (CHIP)	
General information .....	1-877-KIDS-NOW
Medicaid/PCN Information Line (Information for beneficiaries)....	1-800-662-9651
Primary Care Network (PCN) (General information) .....	1-888-222-2542
Mountain West Medical Center (Community Health Systems, Inc.) .....	435-843-3600
Planned Parenthood Association of Utah (Salt Lake) .....	1-800-627-9558
Facts of Life Line (recorded messages).....	1-800-344-4134
RX Connect .....	1-866-221-0265
Tooele County Health Department .....	435-277-2300
Wendover Unit.....	435-665-7004
Tooele County Relief Services .....	435-843-9955
Utah Health Insurance Division.....	1-800-439-3805
Wendover Community Health Center.....	(775) 664-2220

## HOUSING/UTILITIES

American Red Cross (Utilities).....	1-800-328-9272
Community Action Program.....	1-800-796-2444
Habitat for Humanity (Salt Lake).....	(801) 263-0136
HEAT Tooele office.....	435-833-7382
Outages/Emergencies.....	1-877-548-3768
Questar Gas (Customer Service).....	1-800-323-5517
Gas Leaks.....	1-800-541-2824
Blue Stakes.....	811, or 1-800-662-4111
Rocky Mountain Power.....	1-888-221-7070
USDA Rural Development (Provo).....	(801) 377-5580
Tooele City Utilities.....	435-843-2150
Tooele County Housing Authority.....	435-882-7875
Tooele County Relief Services.....	435-843-9955
UTAP (Utah Telephone Assistance Program).....	1-800-948-7540
Utah Department of Workforce Services (DWS) Tooele Employment Center.....	435-833-7310

## LAW ENFORCEMENT/EMERGENCY SERVICES/FIRE

Emergencies (Fire, Hazardous Materials, Medical, & Police).....	9-1-1
Grantsville City Police Department.....	435-884-6886
Tooele City Police Department.....	435-882-8900
Tooele County Sheriff Area Dispatch (non-emergencies).....	435-882-5600
Jail.....	435-843-3347
Stansbury Park Office.....	435-843-4728
Wendover Office.....	435-665-7010
Fire Warden.....	435-843-4727

## LEGAL INFORMATION/CONSULTATION

Consumer Protection, Division of.....	1-800-721-SAFE (7233)
Disability Law Center.....	1-800-662-9080
Lawyer Referral.....	www.utahbar.org (click on legal match)
Tooele County Relief Services.....	435-843-9955
Tooele Courthouse.....	435-833-8000
Utah Legal Services.....	1-800-662-4245

## LIBRARIES

Tooele City Library.....	435-882-2182
Tooele County Bookmobile Library (Grantsville).....	435-884-3703

## MENTAL HEALTH/COUNSELING

Family Support Center (parenting) (Salt Lake).....	(801) 255-6881
LDS Family Services (Salt Lake).....	(801) 240-6500
NAMI UTAH (National Alliance for the Mentally Ill of Utah).....	1-877-230-6264
Valley Mental Health – Tooele Office.....	435-843-3520
New Reflections Clubhouse.....	435-882-4845

## OTHER SERVICES

Better Business Bureau (BBB).....	1-800-456-3907
Tooele County Chamber of Commerce.....	435-882-0690
Utah Transit Authority.....	1-888-RIDE-UTA (743-3882)

## PEOPLE WITH DISABILITIES

711 Relay Utah.....	7-1-1
Access Utah Network.....	1-800-333-8824
Division of Vocational Rehabilitation Services.....	435-882-1086
Division of Services for People with Disabilities (DSPD).....	1-800-837-6811
Rise, Inc.....	1-800-257-9920
Turn Community Services.....	1-866-359-8876
Utah Independent Living Center – Tooele Satellite Office.....	435-843-7353
Utah Parent Center and Autism Information Resources Salt Lake City Office (Parents of children with disabilities) ..	1-800-468-1160

## PREGNANCY

See also: Health Care/Hospitals/Clinics

Baby Your Baby Hotline.....	1-800-826-9662
The Children’s Service Society of Utah.....	1-800-839-7444
LDS Family Services (Salt Lake).....	(801) 240-6500
Planned Parenthood Association of Utah (Salt Lake).....	1-800-627-9558
Pregnancy Resource Center (Salt Lake).....	(801) 363-5433
Pregnancy Riskline.....	1-800-822-BABY (2229)
Teen Pregnancy Support (Valley Mental Health).....	435-843-3520

## RAPE/SEXUAL ASSAULT

Domestic Violence and Sexual Assault Victim Advocacy.....	435-882-6888
Rape/Sexual Assault Crisis Line.....	1-888-421-1100
Utah Coalition Against Sexual Assault (UCASA).....	1-866-878-2272

## SENIOR CITIZENS

AARP.....	1-866-448-3616
Tooele County Division of Aging & Adult Services.....	435-882-2870
Grantsville Center.....	435-884-3446
Tooele Senior Center.....	435-882-2870
Wendover Senior Center.....	435-665-7719

## SEXUALLY TRANSMITTED DISEASES/AIDS INFO

See also: Health Care/Hospitals/Clinics

People with AIDS Coalition of Utah.....	(801) 484-2205
Planned Parenthood Association of Utah (Salt Lake).....	1-800-627-9558
STD/HIV/AIDS Education, Tooele County Health Department.....	
.....	435-843-2300
Utah AIDS Foundation.....	1-800-FON-AIDS (366-2437)

## SUBSTANCE ABUSE

AA (Alcoholics Anonymous).....	(801) 484-7871
Al-Anon Family Groups.....	1-866-262-9587
Narcotics Anonymous.....	www.utahna.info
Tobacco Quit Line.....	1-888-567-TRUTH (8788)
Valley Mental Health Substance Abuse Services.....	435-843-3520

## SUPPORT GROUPS

Call for details on various groups.....	2-1-1
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## VOLUNTEER

211 Volunteer Center.....	2-1-1
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## WELFARE AND FINANCIAL SERVICES

Office of Recovery Services (ORS) (Salt Lake).....	801-536-8500
Social Security Administration (SSA).....	1-800-772-1213
Salt Lake Office.....	1-866-851-5275
Unemployment Insurance Center.....	1-888-848-0688
Utah Department of Workforce Services (DWS) Eligibility Service Center.....	1-866-435-7414
Tooele Employment Center.....	435-833-7310
Constituent Affairs.....	1-800-331-4341
Worker’s Compensation Fund (WCF).....	1-800-446-2667

*2-1-1 is the place to call if you need help or want to give help. Callers can be linked to resources available from health and human service programs throughout the state.*

### Last Update: April 2011

Please visit [www.211ut.org](http://www.211ut.org) for the most current resource lists. If your cellular phone or office phone system does not recognize the 211 number, you can dial 1-888-826-9790 for the same free services.