



2017 Student Case Study Competition Denver, Colorado Scenario

The Health Issue:

In 2015, 22.2 million Americans 12 years of age and older reported they had used marijuana within the past month, making marijuana the most commonly used [federally] illicit drug in the United States (1). Marijuana is a substance compounded from the dry leaves of the *Cannabis septiva* plant and can be smoked, inhaled, or ingested (in food or beverages). Tetrahydrocannabinol (THC) is the active component in marijuana which causes the psychogenic effects of euphoria and increased sensory perception (2). While the use of marijuana is linked to increased alcohol-related abuses, evidence suggests that most marijuana users do not go on to use “harder” illicit drugs (3). Nevertheless, marijuana remains classified as a Schedule 1 drug (which is a “drug with no currently accepted medical use and a high potential for abuse”) and is illegal under federal law (4). Many people are unaware of the harmful effects of marijuana use, and are in support of its legalization (5). So far, a total of 28 states have legalized marijuana for medical use only and another 8 states have legalized marijuana for both medical and recreational use (6). Several other states have been fighting over whether marijuana should be legalized for either medical use only or for both medical and recreational use (7).

The annual National Survey on Drug Use and Health (NSDUH) that examines substance use, abuse, and dependence among Americans 12 years and older found that marijuana is the most commonly used drug reported by individuals who are using an illicit drug for the first time (8). Although daily marijuana use was stable or declined between the years 2013 and 2015 for 12th graders and full time college students, daily marijuana use has steadily increased for individuals who were either 12th graders or full-time college students since 2015 (9). Along with the increased marijuana use among youth, the proportion of 18-year-olds who disapproved of smoking marijuana regularly decreased from 80.3 percent in 2007 to 70.7 percent in 2015 (9), indicating that an increased number of 18-year-olds accepted marijuana use.

The declining perception of marijuana as harmful coupled with the increased regular use of marijuana is concerning in terms of associated health and safety risks. In 2011, a larger percentage of high school seniors reported they had driven after using marijuana or rode with a driver who had used marijuana (23.4%) than seniors who had reported they had driven after consuming alcohol or had ridden with a driver who had used alcohol (19.2%) (9).

The Epidemiological Data:

Due to the passing of Amendment 64 in 2012 (10), the state of Colorado became the first state in the nation to legalize the dispensing and limited use of recreational marijuana. Under Colorado state law, residents may possess up to one ounce of marijuana. Since legalization of marijuana in Colorado, its use has dramatically increased (11). Colorado youth between the ages of 12 and 17, young adults between the ages of 18 and 25, and adults aged 26 and older were ranked higher in terms of marijuana use in the past month than their counterparts in any other US state (12). Additionally, Colorado had the third lowest percentage of youth between the ages of 12 and 17 who perceived the use of marijuana as being harmful (12). In the state of Colorado, approximately 77 percent of the patients admitted to a substance abuse treatment center for marijuana (as the primary substance) were male, and 68.5 percent of the patients were 30 years of age or younger (12).

A 2016 report *The Legalization of Marijuana in Colorado: The Impact* generated by the Rocky Mountain High Intensity Trafficking Area (RMHIDTA) discusses the changes in motor vehicle crashes and fatalities since the legalization of recreational marijuana by the state. RMHIDTA reports that since the legalization of recreational marijuana, “marijuana-related (meaning marijuana appeared on the toxicology report) traffic deaths increased 62 percent (13). The percentage of total operators who tested positive for marijuana and were involved in a fatal car crash increased from 4.03% in 2006 to 12.06% in 2015 (13). Summit County, in the northwest quadrant of Colorado just west of Denver, reported in 2014 that 10.3 percent of adults had used marijuana in the past month. The same group of adults jumped up to 16 percent the next year (2015). During 2011–13, Summit County saw 21 emergency department visits related to marijuana use per 1,000 people. That number jumped to 56 per 1,000 during the time period between 2014 and September 2015.

While there is a noticeable increase of motor vehicle crashes among drivers using marijuana, there may be many more individuals who drive under the influence without being detected. There is currently no widely accepted test to detect concentrations of marijuana in the way that alcohol is detected (14). Additionally, if a driver has consumed alcohol as well as marijuana, he/she may be tested for blood alcohol concentration but not for marijuana level. Therefore, the contribution of marijuana to the crash may not be determined and thus not reported (14).

The Territory

Summit County is about an hour west of Denver. The following information is taken directly from the Summit County, Colorado website, located at <http://www.co.summit.co.us>.

“Included within the county are six municipalities (Blue River, Breckenridge, Dillon, Frisco, Montezuma, and Silverthorne), four major ski areas (Arapahoe Basin, Breckenridge, Copper Mountain, and Keystone), portions of the White River National Forest, some Bureau of Land Management lands, and two Congressionally designated wilderness areas (Eagles Nest and Ptarmigan Peak). About 80% of the land in the county is federal public land.

According to the 2010 U.S. Census, Summit County’s permanent resident population has aged over the past decade (2000-2010), from a median age of 30.8 years in 2000 to a median age of 36.4 years in 2010. The State Demographer projects that the county’s median age will continue to increase over the coming years to 37.7 in 2015 and 38.9 in 2020.

An increase in ethnic diversity in the entire region is also evident in the 2010 Census data. The total non-white population in Summit County (including Hispanic or Latino persons) increased 54.16%, or 1,699 residents over the last decade (from 3,137 people in 2000 to 4,836 people or 17% of the total county population in 2010). Between 2000 and 2010 the Hispanic population (any race) increased approximately 73%, or 1,683 residents. Persons of Hispanic origin (any race) now make up 14.25% of the county’s total permanent resident population, as of the 2010 Census. The majority of the county’s Hispanic residents (57%) are within two age categories: 32% are less than 18 years of age, and 25% are ages 25 to 34. Over time, ethnic diversification of the permanent resident population is expected to continue.”

The Agency and Local Initiative:

Summit County Public Health (SCPH) Department’s mission statement (15) indicates it serves to protect human health through leadership and community partnership by:

- Assessing health status and making continuous proactive improvement to assure that health needs are met in the most effective and efficient way;

- Creatively enhancing knowledge and cultivating behavior which contributes to a healthy community;
- Implementing regulations in a professional and responsible way;
- Preventing the spread of communicable disease and responding to all hazards

The Goal

Your team represents a group of public health educators working for the SCPH. Given the demographics of Summit County, and the growing trend of injury related to marijuana use as a public health issue, your team is charged with the development of a three-year theory and/or evidence-based prevention program to decrease the rates of injury related to marijuana use.

References

References

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