



Key Findings:

- The COVID-19 pandemic likely had a significant impact on the overall increase of psychological distress in MT.
- From 2012 to 2021, SPD prevalence increased from 3.8 percent to 5.6 percent, representing an increase of approximately 12,000 MT adults.
- MTs aged 18-34 had the largest increase in SPD prevalence going from 3.9 percent in 2012 and 3.8 percent in 2016 up to 10.9 in 2021.
- MTs in poverty had the highest SPD prevalence in 2021 at 15.6 percent.
- American Indian/Alaska Native (AI/AN) MTs, adults living with a disability, and MTs in poverty had higher prevalence of SPD compared to all Montana adults across all the years.

Montana Behavioral Risk Factor Surveillance System

<https://dphhs.mt.gov/publichealth/brfss/>

CHANGES IN SEVERE PSYCHOLOGICAL DISTRESS (SPD) AMONG MONTANA ADULTS FROM 2012 TO 2021

Introduction:

Mental illnesses contribute to more disability than any other group of illnesses in the United States and are associated with chronic conditions such as cardiovascular disease, diabetes, and obesity, as well as with health risk behaviors including tobacco use and physical inactivity (1,2).

To provide data-driven assistance to address these challenges, the Montana Behavioral Risk Factor Surveillance System (MT BRFSS) survey included questions in calendar years 2012, 2016, and 2021 aimed specifically at estimating the prevalence of severe psychological distress (SPD) within MT's adult population. SPD is defined as scoring 13 or higher on the Kessler 6 nonspecific distress scale (see methods section for more detail). Additionally, the timing of this data collection provides an opportunity to analyze the impact of the COVID-19 pandemic on mental health. Evidence from national, state, and local resources show that the COVID-19 pandemic had negative impacts on mental health and wellbeing in the United States (3). This MT specific report evaluates changes to SPD in 2021 compared to previous data collected in 2016 and 2012. Changes to SPD data over this time period offer critical insight into the annual trends of mental health of adult Montanans (MTs). The goal of this report is to expand on previous MT BRFSS SPD publications (4,5) to inform and guide tribal, local, state, and private efforts in improving their responses to the increasing poor mental health outcomes among MTs.

Results:

The prevalence of SPD significantly increased by 42 percent from 2012 to 2021, representing an increase of 12,028 MT adults (Figure 1). The increase in SPD was especially large among young adults (aged 18 to 34 years), females, and adults with disabilities (Figures 1 and 2).

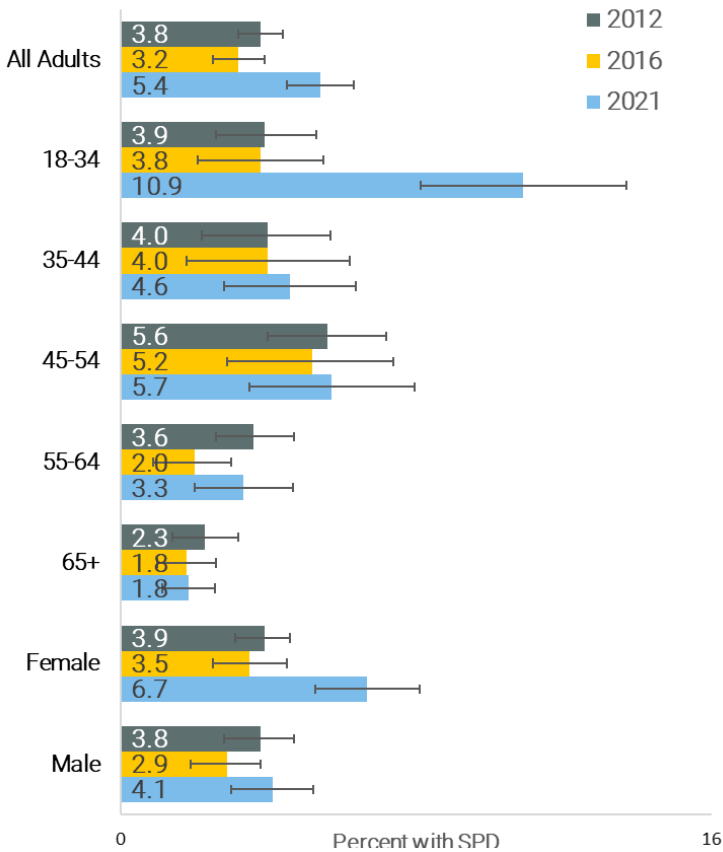
In 2021, prevalence of SPD increased 180 percent among adults aged 18-34 when compared to years 2012 and 2016. Older age groups (35-44, 45-54, 55-64, and 65+) did not have a significant change in SPD prevalence.

Female prevalence increased from 2012 and 2016 to 2021, with females experiencing a significant increase from 3.9 percent and 3.5 percent to 6.7 percent while there was no significant increase among males.

Compared with all MTs, AI/AN MTs have disproportionately reported



FIGURE 1. PREVALENCE OF SPD AMONG MONTANA ADULTS BY YEAR AND SELECT DEMOGRAPHIC CHARACTERISTICS



higher SPD prevalence across all three time periods.

Among MTs living with a disability, there was a statistically significant increase of reported SPD from 9 percent to 13.9 percent from the years 2016 and 2021 (Table 1).

Those living in poverty consistently have high prevalence of SPD across the years when compared to the overall population and had the highest prevalence in 2021, effecting nearly 16 percent of this demographic.

Discussion:

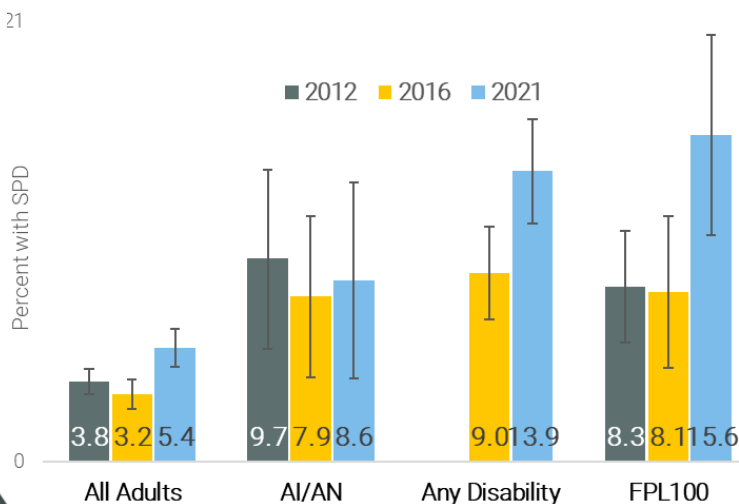
From 2012 to 2021, there was a significant increase in SPD overall - among women and young adults ages 18-34. There is a statistically significant increase of SPD prevalence among MTs living with a disability between 2016 and 2021. The overall increase in SPD in MT was most likely due to the significant increases of SPD among those aged 18-34 and among females. While noting the changes in SPD prevalence over time is important, it is of equal importance to highlight the persistent and elevated disparity of SPD prevalence among AI/AN, those with a disability, and adults living in poverty over the time period.

Understanding the impacts of COVID-19 is crucial for developing targeted mental health interventions in times of crisis and beyond. The COVID-19 pandemic resulted in intense long-term exposure to isolation and social distancing, economic stress, disruption of school and career routines, and collective trauma (3). The physical and mental health impacts of the COVID-19 pandemic are ongoing and may never be fully understood. COVID-19 and its effects on society may have led to an increase in SPD in MT, especially for women and those aged 18-34. However, regardless of reasons, there are ways that MT can begin to improve their response to the increase in SPD.

Addressing SPD in MT requires both improving access to comprehensive mental health care and ensuring supportive policies that do not further marginalize vulnerable populations. Public health and local organizations can address SPD in their community by:

- Expanding access to mental health services, particu-

FIGURE 2: PREVALENCE OF SPD AMONG ADULTS WITH HIGHEST BURDEN OF SPD





larly for high-risk groups such as young adults, females, those living in poverty, AI/AN, and those with a disability.

- Developing community-based programs that provide support and resources for individuals experiencing SPD. Target these programs to the 5 demographics most at risk for experiencing SPD.
- Implement public health campaigns to raise awareness about SPD and reduce stigma associated with seeking mental health care. This report demonstrates that individuals with SPD are not suffering alone.
- Utilize recommended United States Preventive Services Task Force (USPSTF) screening tools for mental health: (6,7)
 - [Anxiety Disorders in Adults: Screening](#)
 - [Depression and Suicide Risk in Adults: Screening](#).

MT DPHHS's Behavioral Health and Developmental Disabilities Division (BHDD) exists to implement and improve a statewide system of prevention, treatment, care, and rehabilitation for MTs with mental disorders or addictions to drugs or alcohol (8). BHDD programs include suicide prevention and increasing access to adult mental health services.

Colonial institutions such as local, state, and federal governments have historically and continuously perpetrated negative health outcomes among American Indians. To address SPD among MT's AI/AN population, state and local public health organizations should consult Tribal leaders in the field of AI/AN health. Dr. Joe Gone and Dr. Desi Small-Rodriguez have done extensive work to measure AI/AN disparities and provide insight on a path to better health for Native communities.

For Dr. Gone's expertise and guidance, please visit <https://gonetowar.com/> and <https://www.researchgate.net/profile/Joseph-Gone> (9).

For Dr. Small-Rodriguez's research and expertise, please visit <https://www.drdrdesi.com/> and <https://www.drdrdesi.com/research> (10).

Additionally, MT DPHHS's Office of American Indian Health (OAIH), led by Director Stephanie Iron Shooter, is working to help DPHHS better serve tribes across MT. OAIH serves as a bridge between DPHHS public health programming and the tribal populations of MT. OAIH advises on diplomatic and cultural insights so that DPHHS programs can tailor services to meet the tribal needs, strengths, and cultural practices critical for effective health services of our Indigenous populations. For more information about DPHHS OAIH, please visit: <https://www.dphhs.mt.gov/OAIH/index> (11).

To address SPD among the disability community, there are trainings that can be developed and are already available for mental health professionals with the goal of improving health care access of adults with disabilities. The Oregon Office on Disability and Health at Oregon Health & Science University launched a webinar which features self-advocate trainers who share lived experiences and resources for the disability community. (12)

Addressing SPD using targeted interventions that are evidence based may decrease the risk of SPD among MT adults. Interventions that are tailored to the populations most at risk are beneficial, ideally using interventions created by and for each population.

Methods:

This report utilized data from the 2021, 2016, and 2012 MT BRFSS survey. The BRFSS is a system of health-related telephone surveys that has collected data annually among MT adults since 1984. Survey respondents are chosen via random-digit telephone dialing including both land line and cell phone numbers. Eligible respondents are non-institutionalized adults 18 years or older. Non-institutionalized is defined as not residing in a penal institution, mental facility, or home for the aged. Information is collected on a variety of health conditions, health practices, and risk behaviors. In 2021, 2016, and 2012, MT DPHHS included six-questions to assess SPD.

SPD is determined by responses to the six questions comprising the Kessler 6 nonspecific distress scale (10). Kessler 6 asks about the frequency of each of the six symptoms of mental illness or non-specific psychological distress: "During the PAST 30 DAYS, how often did you feel ...

1. so sad that nothing could cheer you up;
2. nervous;
3. restless or fidgety;
4. hopeless;
5. that everything was an effort;
6. worthless".

Responses to each question are coded as 0 (none at all) through 4 (all of the time), for a summed score ranging from 0 to 24. Respondents with a cumulative score of 13 or higher were categorized as having SPD. SPD is inclusive of mental health problems severe enough to cause moderate-to-serious impairment in social and occupational functioning and may require treatment (3).

The SPD questions were prompted to all respondents. The 2021 MT BRFSS was completed by 6,243 respondents, with 5,358 completing the SPD module. The 2016 MT BRFSS was completed by 5,971 respondents, with 4,986 completing the SPD module. The 2012 MT BRFSS was completed by 8,679 respondents, with 8,097 completing the SPD module.

Respondents who answered, 'don't know,' 'not sure,' or 'refused,' to any of the six questions were excluded from the given analyses. Select prevalence estimates were not reported due to low precision; this included estimates with fewer than 50 respondents, with half-width confidence intervals greater than 10 percent, or with a relative standard error greater than 30 percent. Prevalence estimates were obtained using cross tabulation tables. All statistical analyses were performed using SAS 9.4 software. Analyses were conducted to account for the complex sampling design. Weighted crude state-level prevalence estimates were calculated by select demographic characteristics (Table 1).

Limitations:

BRFSS data is self-reported, and like all self-reported data is vulnerable to some bias. In terms of SPD, it is possible that respondents could over or underreport the symptoms of their mental health. Results by income, age, and race/ethnicity are only available for those who volunteered such information during their BRFSS interview. The cross-sectional survey design makes it impossible to make causal conclusions. Race analysis used single race, non-Hispanic categories. Individuals who reported another race in addition to AI/AN or AI/AN's who reported Hispanic ethnicity are not included in the AI/AN analysis. Due to the change in disability definition from 2012, we can only compare disability status and SPD prevalence between 2016 and 2021.

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TABLE 1. SPD PREVALENCE ESTIMATES BY DEMOGRAPHIC CHARACTERISTICS, MONTANA, BRFS SURVEY YEARS 2012, 2016, AND 2021

	2012 SPD %	95 % CI		2016 SPD %	95 % CI		2021 SPD %	95 % CI	
ALL ADULTS	3.8	3.2	4.4	3.2	2.5	3.9	5.4	4.5	6.3
SEX									
Male	3.8	2.8	4.7	2.9	1.9	3.8	4.1	3.0	5.2
Female	3.9	3.1	4.6	3.5	2.5	4.5	6.7	5.3	8.1
AGE									
18-34	3.9	2.6	5.3	3.8	2.1	5.5	10.9	8.1	13.7
35-44	4	2.2	5.7	4	1.8	6.2	4.6	2.8	6.4
45-54	5.6	4	7.2	5.2	2.9	7.4	5.7	3.5	8.0
55-64	3.6	2.6	4.7	2	0.9	3	3.3	2.0	4.7
65+	2.3	1.4	3.2	1.8	1	2.6	1.8	1.1	2.6
RACE/ETHNICITY									
White, non-Hispanic	3.2	2.6	3.7	2.7	2	3.5	5.1	4.1	6.1
AI/AN	9.7	5.4	13.9	7.9	4	11.7	8.6	4.0	13.3
DISABILITY STATUS *									
Not Disabled	1.3	0.9	1.7	0.9	0.4	1.3	1.9	1.2	2.6
Disabled	11.1	9.2	13.1	9	6.8	11.2	13.9	11.4	16.3
POVERTY STATUS									
Poverty	8.3	5.7	11.0	8.3	4.7	11.9	15.6	10.8	20.3
Not in Poverty	2.7	1.9	3.4	2.4	1.6	3.1	4.0	3.1	4.8

*2012 prevalence rates for disability status are displayed but cannot be compared to prevalence rates in 2016 and 2021 due to differential assessment of disability.