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June Update: Statewide High-Level Analysis of Forecasted Behavioral Health Impacts from COVID-19

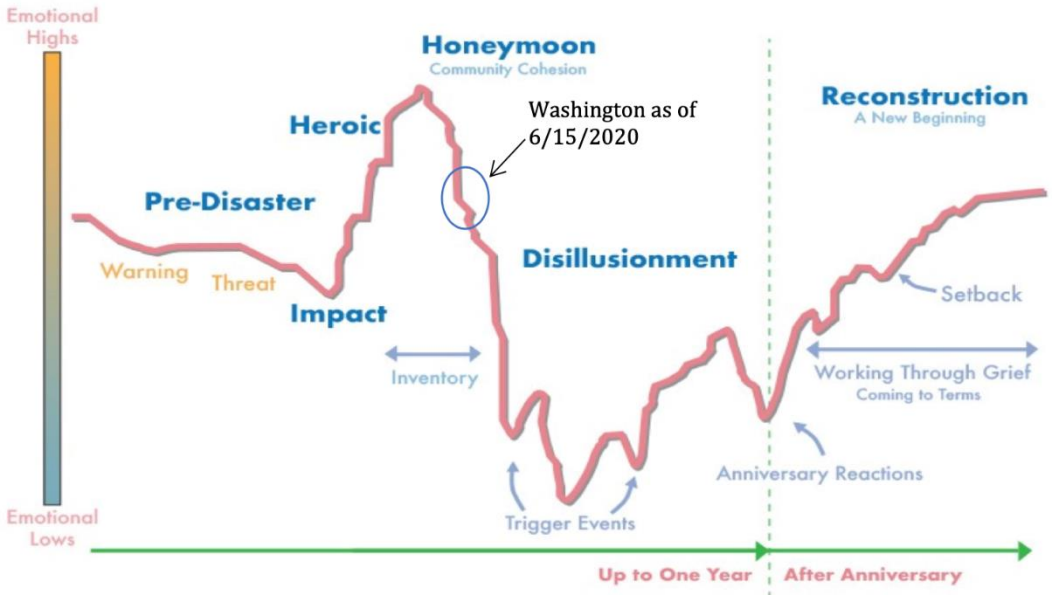
Purpose

This document provides a brief overview of the potential statewide behavioral health impacts from the COVID-19 pandemic. The intent of this document is to communicate the potential impacts of the outbreak to response planners and behavioral health organizations and agencies in order for adequate preparation.

Bottom Line Up Front

- The COVID-19 pandemic is considered a natural disaster and as such, this document is heavily informed by research on disaster recovery and response.
- The behavioral health impacts from the COVID-19 pandemic and related government and social actions have to-date caused a surge in behavioral health symptoms across the state. This trend is likely to continue. This surge will present differently based on the stage of the pandemic, the effectiveness of the overall response effort, and the populations being impacted. A second or third pandemic wave will dramatically change this forecast, as outlined in the scenarios that follow. This forecast will be updated monthly to reflect changes in baseline data.
- Ongoing behavioral health impacts in Washington State will likely be seen in phases (see Figure 1 and Figure 2), peaking around 6-9 months after the initial outbreak.[1,2] This will likely coincide with a potential second wave of infections, in a pattern consistent with previous pandemics.
- For the majority of people across the state, the behavioral health outcomes from COVID-19 are related to experiences of isolation and quarantine, rather than exposure, illness, or threat to physical health.[3]
    - Experiences of isolation and quarantine are associated with increased behavioral health problems, such as depression, anxiety, mood disorders, psychological distress, post-traumatic stress disorder (PTSD), insomnia, fear, stigmatization, low self-esteem, and lack of self-control.

Figure 1. Reactions and Behavioral Symptoms in Disasters



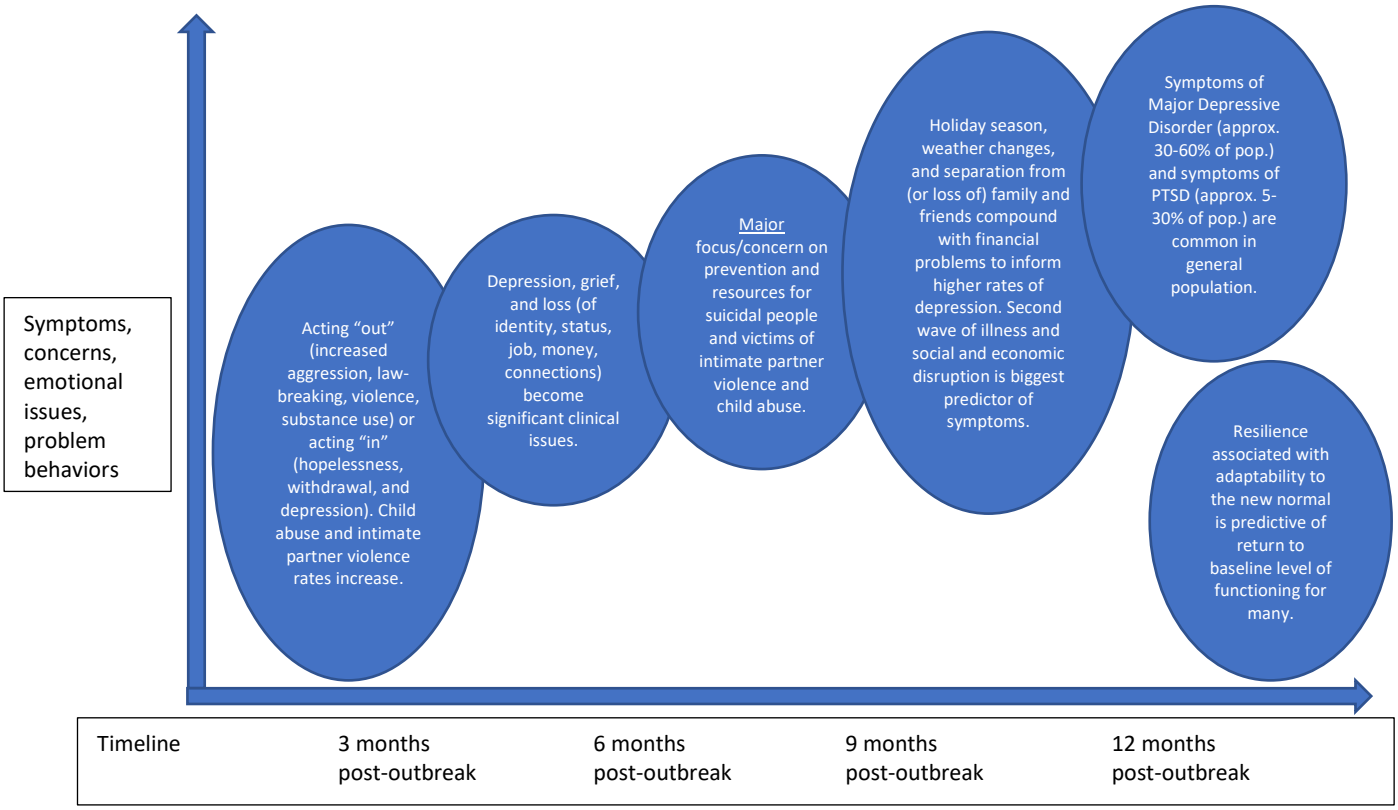
Adapted from the Substance Abuse and Mental Health Services Administration (SAMHSA)

- Problematic substance use is also a primary concern in disaster recovery. After the impact phase, approximately 20% of individuals will struggle with alcohol abuse. Less than 0.5% of these will be acute new alcohol use cases. The majority will be an exacerbation of pre-existing problematic behavior.[4] Given the extended timeline of unknowns, restrictions associated with this pandemic, and additional stressors associated with the potential for multiple waves and subsequent disruption, substance use will likely surpass typical post-disaster levels.
- Violence against women increases after every type of disaster or emergency.[5] Rates of intimate partner violence and child abuse have increased significantly in Washington State. Results of weekly surveys of Washington State law enforcement agencies indicate that domestic violence is consistently elevated by approximately 17% of the corresponding 2019 levels.

- Many individuals and communities are experiencing a significant lack of control over their personal and environmental circumstances in the current stage (3-6 months post-impact) of the pandemic. When individuals feel loss of control along with associated stress, worry, and fear, it is very common for those feelings to be expressed outwardly in the form of frustration and anger. These feelings are frequently managed with substance use. The "Stay Home, Stay Healthy" order extension combined with fast-evolving messaging related to COVID-19 risks and potential outcomes has created a high baseline level of uncertainty within many communities. For many people in Washington State, it is likely that the summer months of 2020 will include a significant sense of frustration and higher rates of substance use than might otherwise typically be present.
- The unique characteristics of a pandemic are lending themselves to a trend towards depression as a significant behavioral health outcome in Washington State, rather than PTSD as seen in other natural disasters.[6,7]

- Certain populations, such as ethnic and racial minorities, disadvantaged groups with limited access to healthcare resources, those of lower socioeconomic status, and essential workers are experiencing disproportionately more behavioral health impacts than their counterparts.[8,9,10,11,12]
- Certain groups, such as healthcare workers, law enforcement officers, educators, and people recovering from critical care may experience greater behavioral health impacts. The COVID-19 Behavioral Health Group Impact Reference Guide (DOH publication number 821-104) provides detailed information on how people in specific occupational and social roles are uniquely impacted.

Figure 2. Forecasted Behavioral Health Symptoms (without additional pandemic waves)



Note: Where people start on this chart is strongly predicted by their baseline level of functioning **before** the pandemic.

- In Washington, the highest risk of suicide will likely occur between October and December 2020. This is consistent with known cycles of disaster response patterns. Seasonal affective disorder exacerbates mental health challenges at that time of year due to increased hours of darkness and inclement weather. Winter holidays can also worsen mental health challenges for many people, as they are often an emotionally and financially difficult time of year.
- Outreach and support strategies need to be tailored based on the current phase of the incident and the impacted population. Resources are available to inform outreach and

support strategies. Additional resources to support these efforts are currently under development.

- Efforts should focus on activating or augmenting existing community supports to increase social connections. This helps reduce behavioral health symptoms and encourages development of active coping skills.
- An eventual return to baseline levels of functioning for many people should occur around 12-14 months after the initial outbreak. **This is assuming that the potential second wave of the pandemic is stabilized by that time in terms of both social and economic disruptions, and a sense of the new normal is underway.**
- There are three different scenarios for the future of the COVID-19 pandemic as summer and fall approach, some of which are consistent with what occurred during past influenza pandemics (see Figure 3).[13] The behavioral health symptom projections displayed in Figure 4 are based on the different scenarios and their corresponding behavioral health impacts.

Figure 3.

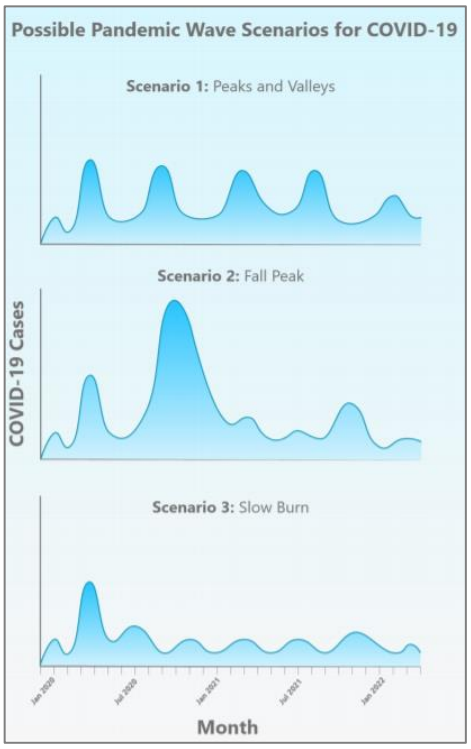
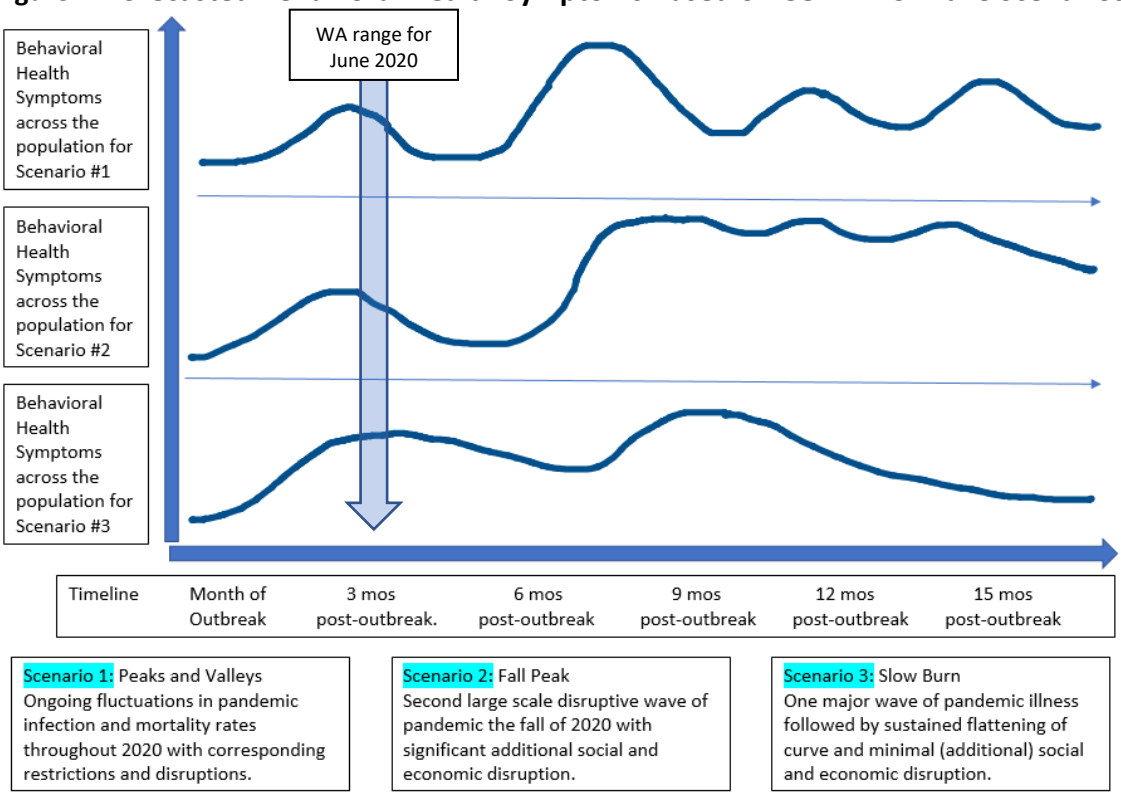


Figure 4. Forecasted Behavioral Health Symptoms Based on COVID-19 Wave Scenarios



Key Things to Know

What behavioral health impacts are expected?

- Approximately 650,000 Washingtonians were receiving treatment for behavioral health needs prior to the COVID-19 outbreak.[14]
- Approximately 700,000 Washingtonians have mental health concerns, but were **not** receiving services prior to the outbreak.[14]
- While only 4-6% of people typically develop symptoms of PTSD after a disaster (equivalent to 380,000 individuals in Washington), **this number can vary quite a bit depending on the type of disaster**, and is often higher amongst first responders and medical personnel if the disaster is more chronic, widespread, children are hurt or injured, and burnout is likely.[15,16]
- Rates of PTSD have been much higher (10-35%) in some places more directly impacted by a critical incident.[17] Although rates of PTSD may not reach such critical levels in Washington State, it is anticipated that **rates of depression are likely to be much higher (potentially 30-60% of the general population, which is equivalent to 2.25 million to 4.5 million people in Washington State[17]) due to the chronic and ongoing social and economic disruption in people's lives as a result of the COVID-19 pandemic.** This is a much higher rate than is typical after a natural disaster where there is a single impact point in time.
- If we are to experience multiple waves of illness as a function of this pandemic, significant behavioral health reactions or functional impairments may be experienced by approximately 30% of the population.[18,19]
- The most common symptoms of trauma in children and teens in the context of disaster recovery include the following: eating too much or too little, difficulty sleeping, having bad dreams or nightmares, sleeping too much or too little, changes in behavior such as acting "out" or acting "in," and difficulty learning and remembering new things. It is also very common for children and youth of all ages to experience some regression, such as acting like they did as a younger child.[20]
- Suicide and drug overdose rates are both highly influenced by unemployment.[8,21,22,23] For every 1% increase in the unemployment rate, there is a corresponding 1.6% increase in the suicide rate[21] and an increase of one drug overdose death per 300,000 people.[22] In Washington, approximately 1,231 people die from suicide and 1,173 people die from drug overdose annually.
    - The unemployment rate in Washington was 15.4% in April 2020,[24] 11 percentage points higher than April 2019. If sustained, this could result in an additional 217 deaths annually by suicide and an additional 280 deaths annually by drug overdose in Washington.
- In the context of post-disaster recovery, individuals often utilize substances as a way to relieve psychological suffering. As such, disasters are linked to increased use of tobacco, marijuana, and alcohol.[25]
    - Prior to COVID-19, approximately 24% of individuals with mood disorders reported using alcohol or drugs to relieve symptoms, 10% of individuals with an anxiety

disorder reported self-medicating with alcohol, 3% of individuals with an anxiety disorder reported self-medicating with alcohol and drugs, and 21% of individuals with PTSD reported using alcohol and other drugs to relieve their psychological symptoms.[25] Due to the extended nature of a pandemic, it is likely that self-medication and use of substances of all types will increase significantly over the next 6-9 months.

    - As compared to sales from May 2019, marijuana and liquor sales for May 2020 were up 44% and 31%, respectively.[26] There has also been a corresponding rise in alcohol-related Emergency Department visits in 2020.
  - Given these increases, healthcare providers should suggest both healthy alternatives for coping and sources of support.

- Based on population data for Washington and known cycles of common psychological responses to disasters, **we can reasonably expect that between two and three million Washingtonians will experience behavioral health symptoms over the next three to six months. Symptoms of depression will likely be the most common, followed by anxiety and acute stress.** These symptoms will likely be strong enough to cause significant distress or impairment for most people in this group.

What does this look like over time?

- **Behavioral health symptoms will likely present in phases:[1,2]**
  - We can reasonably expect that behavioral health symptoms including anxiety, aggression, fear, substance use, withdrawal, trouble sleeping, stomachaches, and headaches will be consistent among the general population in the summer months of 2020.
  - Behavioral symptoms associated with acting out (e.g., aggression, law breaking, significantly increased domestic child abuse, intimate partner violence, and substance use) or acting in (e.g., voluntary isolation, non-participation, blunted emotional expression) have been increasing over the last three months. This trend is likely to continue over the summer months.
  - Weekly surveys of Washington state law enforcement agencies indicate that domestic violence offenses remain elevated at levels 17% higher than those in 2019, while other select offenses are down 26%.*[27] However, these data only represent approximately 29% of law enforcement agencies. Based on data from previous disasters, it is likely that – even among reporting agencies – the true number of domestic violence cases is significantly higher.
  - Psychological distress in the form of panic, stress, and anxiety is likely to decrease beginning in June. This decrease will potentially last into the summer

*The number of law enforcement agencies submitting offense counts varies from week to week: April 6-12 (n=84), April 13-19 (n=80), April 20-26 (n=78), April 27-May 3 (n=80), May 4-10 (n=70), May 11-17 (n=76), May 18-24 (n=75), May 25-31 (n=74). In addition to counts of domestic violence, law enforcement agencies were only asked to submit counts of the following (select) offenses: Murder, assault, robbery, burglary, theft, destruction of property, weapons offenses, and animal cruelty.

months due to increased opportunities for both social engagement and outdoor activities.[3]

  - Depression rates and symptoms, along with suicide rates, are likely to plateau over the summer months. They will potentially peak in the fall and winter of 2020. For the general population, this is due to the combination of the following:
    - The disillusionment phase of disaster recovery (when people recognize that things will not be returning to the way they once were).
    - The season (winter holidays and reduced daytime hours).
    - Long-term effects of financial losses and feelings of hopelessness for financial improvement.
    - A second wave of COVID-19 illness, resulting in large-scale social and economic disruption.
  - An eventual return to pre-pandemic baseline levels of functioning by February or March 2021 is anticipated for many people. However, this is dependent on the level of disruption caused by a potential second pandemic wave in in the fall of 2020 or winter of 2021.[1,2]

- In scenarios where multiple pandemic waves occur (see scenarios 1 and 2 in Figure 4 above), a "trauma cascade" is likely. For behavioral health, this means that the recurrence of a traumatic event (in this case, a second or third wave of significant disease and restriction) inhibits the natural ability of people to recover to baseline levels of functioning. In these scenarios, symptoms increase and are compounded, instead of being actively managed.

What can we focus on during the summer months of 2020?

- Behavioral health systems, providers, and public messaging teams should be mindful of the following strategies to maximize the impact of their efforts:
  - To reduce behavioral health symptoms, primary efforts during the summer months of 2020 should be focused on activating community supports to increase social connections and encouraging the development of active coping skills among the general public.
  - Communicating about the normal behavioral health responses to this highly abnormal situation will help to validate emotional concerns that people have and de-stigmatize their experience.
  - A focus on preparation for the potential of multiple pandemic waves (and thus, the potential for additional school closures, social distancing measures, and restrictions in the fall) will help to reduce acute behavioral health symptoms for people if a second wave of illness occurs.
  - There should be a psychoeducational emphasis on the disaster response cycle to inform people about what they may reasonably expect to experience themselves or see in others. This education prevents people from pathologizing a normal response to an abnormal situation.

- The typical response to disaster is **resilience**, rather than disorder.[1,28] Resilience is something that can be intentionally taught, practiced, and developed for people across all age groups. Resilience can be increased by:[29]
    - Focusing on developing social **connections**, big or small
    - Reorienting and developing a sense of **purpose**
    - Becoming adaptive and psychologically **flexible**
    - Focusing on **hope**
- Community support structures and groups, such as law enforcement, first responders, lay volunteers, and all manner of social organizations are resources that can be developed to help reduce behavioral health symptoms among the general population. These should be leveraged to take pressure off of depleted or unavailable professional medical and therapeutic resources throughout 2020.

Background Data and Analysis

National Prevalence Rates

Mental Illness, Behavioral Health Diagnoses, and Demographics[30,31]

- Generalized Anxiety Disorder = approximately 1% of adolescents, 2.9% adults (6.06 million nationally)
- Panic Attacks = 11.2% of adults (23.40 million)
- Panic Disorder = approximately 2-3% of adolescents and adults (4.18 million)
- Mood Disorders = approximately 9.7% of adults[31] (20.27 million)
- Depression = 12.7% in WA, 41.1% of whom received mental health services[14]
- Post-traumatic Stress Disorder (PTSD): 3.5% of adults nationally[3030]

Substance-related Disorders[30,31,32]

- Alcohol Use Disorder = approximately 4.6% of adolescents, 8.5% of adults
- Cannabis Use Disorder = approximately 2.3% of adolescents, 5% of young adults, and 0.8% of adults
- Opioid Use Disorder = approximately 0.6% of adolescents, 1.1% of young adults, and 0.8% of adults

Washington State Data

- Population: Approximately 7.6 million
- Percentages with baseline Serious Mental Illness (2017 most recent)
    - Adults 18 and over = 5.3%[14] (or 400,044 people)
    - Young adults from 18-25 = 6.2%[14] (or 29,014 people)

- Percentage of adults 18 and over with any mental illness who received treatment (2017 most recent): 45.6% (approximately 650,000 people or 8% of the total population of Washington State)[14]
- Death rates[33]
    - Annual suicide rate = approximately 16.2 per 100,000
    - Annual drug overdose death rate = approximately 15.4 per 100,000

Acknowledgements

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