

## DECEMBER 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 potential behavioral health impacts to response planners and organizations or individuals who are responding to or helping to mitigate the behavioral health impacts of the COVID-19 pandemic.

## Bottom Line Up Front

- The COVID-19 pandemic strongly influences behavioral health symptoms and behaviors across the state due to far-reaching medical, economic, social, and political consequences. This forecast is heavily informed by disaster research and the latest data and findings specific to this pandemic. Updates will be made monthly to reflect changes in baseline data.
- There are significant and concerning trends in behavioral health that are occurring for children and youth into 2022.<sup>1</sup> Please See the [December Youth Behavioral Health Impact Situation Report](#)<sup>a</sup> for more information on behavioral health impacts to youth in Washington. Professional psychological services for youth may also become harder to find in coming months, based on seasonal patterns<sup>2,3,4</sup>
- Concern about new variants (this is likely not how any of us wanted to learn about or be reminded of the letters in the Greek alphabet) may create spikes of anxiety for some people, and result in an increase in information seeking behavior (more media intake) in order to alleviate that anxiety. For others, the potential for ongoing threats (social, medical, economic, etc.) related to additional infection waves in the context of the variants may increase anger and hostility towards others who may be perceived



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<sup>a</sup> <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/821-135-YouthBehavioralHealthSitRep-December2021.pdf>

as taking actions that prolong the pandemic. [Acting “out” and acting “in”](#)<sup>b</sup> behaviors (see [previous forecasts](#)<sup>b</sup> for more information regarding acting “out” and acting “in”) are likely to become more distinct if additional waves of illness threaten the healthcare, educational, economic, and social systems that have already adjusted in response to this widespread impact.

- As more data become available about the long-term effects of COVID-19 on survivors, it is clear there are significant behavioral health impacts associated with this virus, including cognitive difficulties and increases in anxiety and depression, even among those with a mild course of illness.<sup>5,6</sup> New and concerning data related to morbidity and COVID-related outcomes indicates that people with mental disorders and intellectual disabilities were at a greater risk of deaths relative to the general population before, during and after the first peak of COVID-19 deaths. There were similar risks found in the same study associated with ethnicity.<sup>7</sup> General outcome data also suggest that there can be significant long-term neurological concerns for survivors<sup>8,9</sup> as well as concerning symptoms of psychosis for some<sup>10</sup> although causality with acute COVID infection, as opposed to other psychosocial factors in the context of the pandemic has not been clearly established.<sup>10</sup>
- **For healthcare workers, those in public health services, and educators, the need for the establishment and maintenance of clear boundaries around work and home time in an effort to promote resilience and reduce burnout is essential.** Burnout is a concern across agencies and work functions for many,<sup>11,12,13,14</sup> and this may be even more so for women and people of color.<sup>15</sup> Staffing shortages nationwide have contributed to additional job stress. The politicized nature of the way the pandemic has evolved has also contributed to adverse mental health experiences for many responders. The development of a personal coping plan based on available behavioral health supports and active techniques is highly recommended to reduce symptoms of distress associated with burnout, compassion fatigue and moral injury.
- **This December 2021 forecast will be markedly reduced in an effort to highlight specific and acute areas of concern.** For previous forecasts that include additional areas of focus, please see: [Behavioral Health Resources and Recommendations, Monthly Forecast](#).<sup>c</sup>

## Phase-Related Behavioral Health Considerations

**Behavioral health symptoms will continue to present in phases.**<sup>16,17</sup> The unique characteristics of this pandemic trend towards anxiety and depression as a significant behavioral health outcome for many in Washington. These outcomes have been shown throughout the Behavioral Health Impact Situation Reports published by DOH, which are available on the [Behavioral Health Resources & Recommendations webpage](#)<sup>d</sup> under the “Situation Reports” dropdown. Behavioral health symptoms of anxiety, impulsivity, reduced frustration tolerance, anger, depression, and post-traumatic stress disorder (PTSD) are likely to increase with any significant increases in infection and hospitalization rates.<sup>18,19</sup>

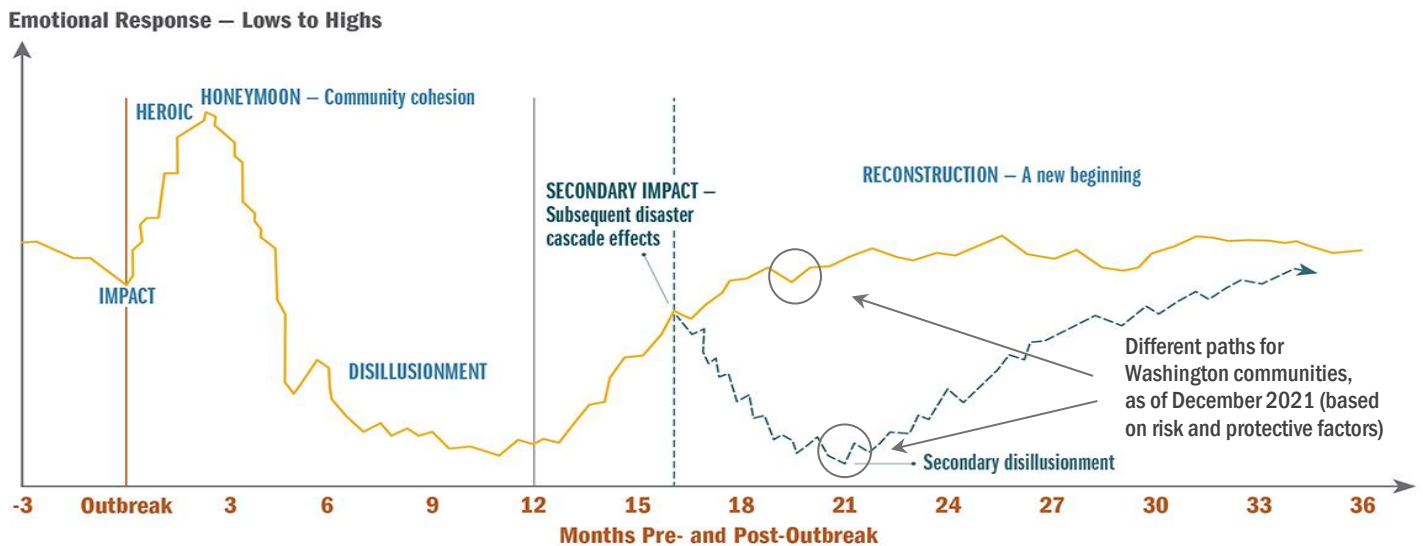
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<sup>b</sup> <https://www.doh.wa.gov/Emergencies/COVID19/HealthcareProviders/BehavioralHealthResources>

<sup>c</sup> <https://www.doh.wa.gov/Emergencies/COVID19/HealthcareProviders/BehavioralHealthResources>

<sup>d</sup> <https://www.doh.wa.gov/Emergencies/COVID19/HealthcareProviders/BehavioralHealthResources>

## Reactions and Behavioral Health Symptoms in Disasters



**Figure 1: Phases of reactions and behavioral health symptoms in disasters.** The dotted graph line represents the response and recovery pattern that may occur if the full force of a disaster cascade is experienced by a majority of the population (i.e., the disaster cascade pathway). Protective factors are characteristics, conditions, or behaviors that reduce the effects of stressful life events. They also increase a person’s ability to avoid risks or hazards, recover, and grow stronger. Adapted from the Substance Abuse and Mental Health Services Administration (SAMHSA).<sup>20</sup>

### Phase Divergence Within Washington

As the pandemic continues through various waves, some communities, families, and individuals in Washington will diverge more distinctly from each other in terms of behavioral health experiences. Factors, such as economic security, social marginalization, and race and ethnicity continue to play a role in the experience of both physical and behavioral health risks and symptoms throughout the pandemic.<sup>21,22,23,24</sup> Disparities throughout the last 18 months will continue to be magnified and potentially worsened.

Those who have had more economic, social, educational, and occupational opportunities so far in 2021 will tend to climb more rapidly into recovery, while those who have experienced more direct primary and secondary impacts from the pandemic (e.g., illness, hospitalization, job loss, eviction) (Figure 2) will likely endure a repetition of the recovery cycle as is consistent with the disaster cascade pathway (Figure 1). Healthcare workers are at specific risks associated with a disaster cascade as a function of the severity of the Delta variant and subsequent fifth wave.

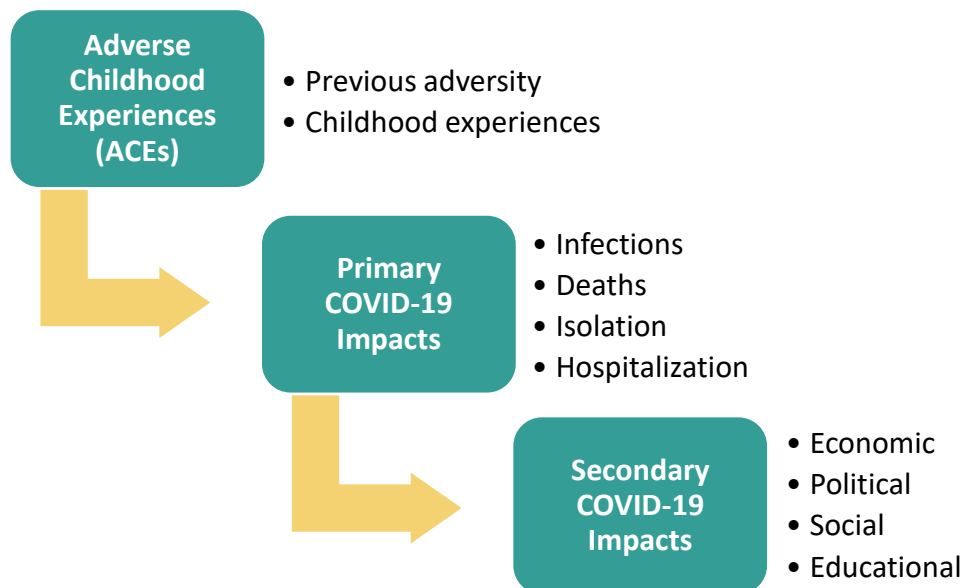
### COVID-19 Variants

As the virus continues to mutate and new variants threaten the stability we have worked hard to establish over the last 21 months, emotional responses to newly identified variants of interest or concern may intensify. Anxiety and anger may be commonly experienced as a reaction to news about additional variants. Creating individualized limits on exposure to media (news and social) may help to reduce anxiety. “Doom scrolling” or getting stuck online searching for answers and information should be recognized as a coping technique that is common, but typically not beneficial to overall symptom reduction.

Additional waves of infection as a function of the variants may contribute to exceptionally challenging working conditions in many clinics and hospitals. Current case and hospitalization rates have resulted in more discussion about ***Crisis Standards of Care***.

Crisis Care happens when there are not enough healthcare staff, space, or supplies to provide conventional care to patients. When we experience circumstances such as a catastrophic incident or a disaster, and the entire healthcare system becomes overwhelmed, we have the potential to enter “Crisis Care”.

Impact of changes in care and particularly Crisis Care, on healthcare staff who are already exhausted and who may be experiencing burn out or compassion fatigue, can create risk for psychological and moral injury. These types of injury occur when someone is put in a position where they are exposed to too many serious illnesses and patient deaths, when they have to change the care they are trained and expected to do, and when they must make decisions that result in some patients not getting all the care they would normally be offered. These may violate the healthcare providers’ expectations of themselves and their values, creating risk for moral distress and injury, as well as new psychological disorders. Healthcare organizations should consider planning and support for impacted workers.<sup>25</sup>



**Figure 2: Disaster and Trauma Cascade Potential.** The figure displays the range of factors (ACEs),<sup>e</sup> primary COVID-19 impacts, and secondary COVID-19 impacts) which may alter the *reconstruction phase* and recovery for individuals based on their experiences.

## Areas of Focus During January 2022

### Children and Families

The behavioral health crisis that was addressed in the Governor’s [emergency proclamation](#) on March 15, 2021 may be compounded by typical seasonal challenges in behavioral health.<sup>2,3,4</sup>

Parents may face needing to balance in-home instruction, or childcare, under quarantine conditions with work requirements once again. There are fears related to increases in pediatric

<sup>e</sup> Adverse childhood experience (ACE): A traumatic experience in a person’s life occurring before the age of 18 that the person remembers as an adult.

illness and case numbers. Children may potentially experience more months of an atypical academic environment and isolation from peers. Roll-out in Washington State of vaccines for children 5 and older may provide a very welcome psychological boost and a sense of hope or relief for many parents, caregivers, and families. Other families may experience this development with concern as it may create barriers to access in-person instruction for their children or keep them from participating in sports and other activities which create opportunities for socialization.

### Classroom Considerations & Academics

As the 2021-2022 academic year progresses, many students and their caregivers may be confronted with concerns that their academic attainment is not where they would want it to be after the experience of the last 18 months. Parents, caregivers, and educators may need to modify expectations and focus on helping children re-engage by first learning how to be a successful student again by socializing and participating with peers in a classroom context before focusing on academic success. Some children may need intensive tutoring to catch up on missed academic skills. Resources for parents, caregivers, educators, and other school staff can be found in both [the COVID-19 Behavioral Health Toolbox for Families: Supporting Children and Teens During the COVID-19<sup>f</sup> Pandemic](#) and the [COVID-19 Back-to-Classroom THINK Toolbox: Teaching with Healthcare Informed Neurological Strategies for Kids<sup>g</sup>](#)

### Child Abuse

Child abuse and domestic violence often increase significantly in post-disaster settings such as the COVID-19 pandemic.<sup>26,27</sup> Due to school closures and social distancing measures over the past 20 months, more children and youth were online and unsupervised than usual. Predators that are sexually interested in children used this opportunity to entice children to produce sexually explicit material (i.e., online enticement).<sup>28</sup> National rates of online enticement of children increased 97.5% from 2019 to 2020 and are on track to increase again in 2021. There has also been a significant increase in National CyberTipline reports (i.e., reports of distribution of child pornography and child sexual abuse material). According to Seattle Police Department's Internet Crimes Against Children (ICAC) Unit, which processes all statewide data of this nature, Washington CyberTips and online enticement reports are following the same trends as national-level data. For Washington State, year-over-year comparisons showed a 213% increase in September CyberTips (from 262 in 2020 to 819 in 2021) and a 95% increase in October CyberTips (from 477 in 2020 to 928 in 2021). Refer to DOH's [COVID-19 Guidance for Educators: Recognizing and Reporting Child Abuse and Neglect in Online Education Settings](#) for more information.

### Seasonal Considerations for Behavioral Health

Traditionally, most years have seasonal increases in behavioral health symptoms and the need for behavioral health services in the fall and winter. For children and youth, this tends to coincide with the increase in academic demands related to the shift from review to learning new material, in addition to the newness of being back with friends having worn off and interpersonal issues taking focus.<sup>2,3,4</sup> It is anticipated that the combination of the high acuity experienced this spring, the lack of a "summer slump," and the typical increase in symptoms for many children and youth in the fall months will negatively and disproportionately impact this

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<sup>f</sup> <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/BHG-COVID19-FamilyToolbox.pdf>

<sup>g</sup> <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/821-148-BackToClassroomToolbox.pdf>

population. This is likely to additionally tax an overstressed health care and educational system throughout the academic year 2021-2022.

Many children and adolescents have struggled with increased social isolation, disruption in school, and loss of connection to teachers and peers. However, if there are concerns about safety, seek professional support and assistance. For more detailed information on this topic, see the [Behavioral Health Toolbox for Families: Supporting Children and Teens During the COVID-19 Pandemic](#).<sup>h</sup> This resource provides general information about common emotional reactions of children, teens, and families during disasters. It also has suggestions on how to help children, teens, and families recover from disasters and grow stronger. Parents and caregivers can also use the [National Parent Helpline](#)<sup>i</sup> to access telephone support (1-855-427-2736) and additional resources.

Parental stress remains elevated. Almost 30% of parents are experiencing negative mood and poor sleep quality, with a 122% increase in reported work disruption. Additionally, 86% of families are experiencing hardships, such as loss of income, job loss, increased caregiving burden, and household illness.<sup>29</sup>

### Depression and Suicide

Depression is a common response throughout the disaster recovery cycle. Many children, teens, and young adults are experiencing significant symptoms of depression during the pandemic.<sup>30</sup> Nationally, emergency department visits for suspected suicide increased dramatically in the spring of 2021, particularly among adolescent girls whose rate increased 50.6% from the rate in 2020. Among boys, those rates increased by 3.7% during the same time period.<sup>31</sup> In Washington, trends indicate that emergency department visits for suicidal ideation and attempts may be increasing, and this is data that we will continue to monitor as emergency department visits are increasing generally.

Active suicide prevention should be promoted through sharing information on recognizing [warning signs](#)<sup>j</sup> and other related resources, and checking in with colleagues, friends, family members, and neighbors. When someone is expressing thoughts of self-harm, [access to dangerous means of harm should be removed](#),<sup>k</sup> and medications, poisons, and firearms should be stored safely. Suicides consistently account for approximately 75% of all firearm-related fatalities in Washington.<sup>32</sup> [Storing firearms safely](#) and [temporarily removing them from the home](#) of an at-risk person during a crisis can save lives.

### Additional Resources

- Anyone concerned about depression or other behavioral health symptoms should talk with their **healthcare provider**.
- [Washington Listens](#)<sup>l</sup>: Call 833-681-0211 to talk to a support specialist who will listen and help you cope with the stress of COVID-19.
- **Health Care Authority: [Mental health crisis lines](#)**<sup>m</sup>

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<sup>h</sup> <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/BHG-COVID19-FamilyToolbox.pdf>

<sup>i</sup> <https://www.nationalparenthelpline.org/>

<sup>j</sup> <https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SuicidePrevention/HelpSomeoneElse#common>

<sup>k</sup> <https://www.seattlechildrens.org/health-safety/keeping-kids-healthy/prevention/home-checklist/>

<sup>l</sup> <https://www.walistens.org/>

<sup>m</sup> <https://www.hca.wa.gov/health-care-services-supports/behavioral-health-recovery/mental-health-crisis-lines>

- [National Suicide Prevention Lifeline](https://suicidepreventionlifeline.org/):<sup>n</sup> Call 800-273-8255 (English) or 1-888-628-9454 (Español).
- [Crisis Connections](https://www.crisisconnections.org/24-hour-crisis-line/):<sup>o</sup> Call 866-427-4747.
- [Crisis Text Line](https://www.crisistextline.org/):<sup>p</sup> Text HEAL to 741741.
- **Department of Health: [Crisis lines for specific groups](https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SuicidePrevention/HotlinesTextandChatResources)**<sup>q</sup>
- [TeenLink](https://www.crisisconnections.org/teen-link/):<sup>r</sup> Call or text 866-833-6546
- **A Mindful State**:<sup>s</sup> <https://amindfulstate.org/>
- [Washington Warm Line](https://www.crisisconnections.org/wa-warm-line/):<sup>t</sup> Call 877-500-9276
- **Washington State COVID-19 Response: [Mental and emotional well-being webpage](https://coronavirus.wa.gov/wellbeing)**<sup>u</sup>

## Behavioral Health Outcomes Associated With COVID-19

As the number of people infected with the virus continues to increase nationally, so does the number of survivors. Concerning research, provider bulletins, anecdotal accounts, and case studies have documented specific behavioral health symptoms and diagnoses which seem to occur in those who have survived COVID-19.<sup>9,33</sup> Treatment providers and behavioral health systems should be aware of these findings, which include new instances of anxiety disorders and PTSD, risks related to a **decline in cognitive functioning**, as well as a new diagnosis identified as **post-COVID-19 psychosis**<sup>34</sup> and a syndrome recognized as **long COVID-19**.

In addition to increased risks for a *new* psychological disorder after a positive COVID-19 diagnosis, research shows that individuals who had a pre-COVID-19 psychiatric diagnosis were associated with a much higher (65% in one study) increased risk of confirmed COVID-19 infection, compared to individuals who only had a pre-COVID-19 diagnosis of a physical health issue and no psychiatric history.<sup>35</sup> Additional research has also found an increased risk for first-time experiences of psychotic symptoms in individuals that tested positive for COVID-19.<sup>36,37</sup> The individuals who had a new onset of psychosis related to COVID-19 infections tended to have features of disorganized thinking and confusion and were less likely to experience paranoia and delusions as part of their psychosis. The individuals who developed this post-COVID-19 psychosis are also less likely to have a family history of psychosis and more likely to present with mild to moderate (i.e., less severe) symptoms of psychosis. Individuals experiencing this type of post-COVID-19 psychosis are typically recovering quickly with the use of low-dose antipsychotic medications.<sup>36,37</sup>

Research has identified a post-COVID-19 group that are referred to as “long-haulers” or as experiencing *long COVID-19*, in which individuals experience symptoms related to COVID-19 for more than six weeks. Many of these individuals only experienced mild respiratory symptoms and never developed pneumonia or hypoxemia (having a below-normal level of oxygen in the blood), requiring hospitalization. It is estimated that 87% of hospitalized COVID-19 patients continue to have symptoms 60 days after COVID-19 onset, and app-based symptom trackers

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<sup>n</sup> <https://suicidepreventionlifeline.org/>

<sup>o</sup> <https://www.crisisconnections.org/24-hour-crisis-line/>

<sup>p</sup> <https://www.crisistextline.org/>

<sup>q</sup> <https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SuicidePrevention/HotlinesTextandChatResources>

<sup>r</sup> <https://www.crisisconnections.org/teen-link/>

<sup>s</sup> <https://amindfulstate.org/>

<sup>t</sup> <https://www.crisisconnections.org/wa-warm-line/>

<sup>u</sup> [coronavirus.wa.gov/wellbeing](https://coronavirus.wa.gov/wellbeing)

estimate that 4.5% of patients have mild COVID-19 symptoms lasting more than 8 weeks. Accordingly, several million people in the world may already suffer from *long COVID-19*.

The ten most common neurologic symptoms experienced by long-COVID are *brain fog* (81%), *headache* (68%), *numbness/tingling* (60%), *dysgeusia* (loss of taste) (59%), *anosmia* (loss of smell) (55%), *myalgia* (muscle pain) (55%), *dizziness* (47%), *pain* (43%), *blurred vision* (30%), and *tinnitus* (ringing in the ears) (29%). The most frequent non-neurologic symptoms include *fatigue* (85%), *depression/anxiety* (47%), *shortness of breath* (46%), *chest pain* (37%), *insomnia* (33%), *variation of heart rate and blood pressure* (30%), and *gastrointestinal symptoms* (29%). The constellation of long-COVID symptoms, particularly fatigue and a sense of cognitive dysfunction (e.g., memory impairment and problems with attention and concentration), in patients resembles the prominent fatigue and cognitive complaints seen in those after mild traumatic brain injury (TBI).

A review of 66 studies of long-COVID survivors found that psychiatric and neuropsychiatric symptoms are an *essential* part of the syndrome, and that related factors included severity of the acute infection, duration of symptoms, and female gender. The studies highlight neuroinflammation as a potential contributor. The authors also found that there was a tendency toward symptom improvement over time.

For adults over 65 years, there seems to be a slight increase in diagnoses of dementia in the first 14 – 90 days after a COVID-19 diagnosis.<sup>38,39</sup> CR Research indicates that individuals who have been hospitalized for COVID-19 or developed encephalopathy (any brain disease that impacts brain function) due to their illness are more likely to experience neurological complications, a psychotic disorder, mood disorder, anxiety disorder, substance use disorder, and insomnia. Although the estimated incidence is modest in the whole COVID-19 cohort (0.67%), 1.46% of hospitalized cases and 4.72% of those who had neurological symptoms related to their COVID-19 infection received a first diagnosis of dementia within six months.

**Individuals with even mild cases of COVID-19 are at higher risk for depression and anxiety, as well as cognitive dysfunction.** This research is congruent with earlier research on COVID-19 which demonstrated evidence that survivors are at increased risk for mood and anxiety disorders and dementia in the three months following infection.

New research has also shown that there seems to be some improvement in mental health symptoms, specifically depression for individuals, who received at least one dose of the vaccine between December 2020 and March 2021.<sup>40</sup>

## Takeaways

- Behavioral health supports for children, adolescents, and teens will need to be in place and continue to be developed as we move into 2022. For more information on specific behavioral health strategies and interventions to assist with this process, please see the [COVID-19 Back-to-Classroom THINK Toolbox: Teaching with Healthcare Informed Neurological Strategies for Kids<sup>v</sup>](#).
- Ambiguity, tension, and even anger related to COVID variants and the continued unfolding of the pandemic may worsen over the next few months. Active coping strategies in addition to clear, individualized limits on media exposure are recommended.

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<sup>v</sup> <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/821-148-BackToClassroomToolbox.pdf>



- This holiday season, healthcare workers, educators, and public health workers may be struggling with burnout, compassion fatigue, and moral injury that is more significant than any they have previously faced. Consider reaching out to check in with friends and family members who do this work to offer support if it is available. Listening to the experience of others can be one of the most valuable behavioral health interventions we can offer. Connection between people is something that has suffered in this pandemic, and we need to support one another as we work through it.

## Acknowledgements

This document was developed by the Washington State Department of Health's Behavioral Health Strike Team for the COVID-19 response. The strike team is a group of clinical psychologists, psychiatrists, and therapists who are professionals in disaster relief and behavioral health. Lead authors from the Behavioral Health Strike Team are Kira Mauseth, Ph.D., Tona McGuire, Ph.D., and Stacy Cecchet, Ph.D., ABPP. Research support for this report was provided by undergraduate psychology students at Seattle University.

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