Health Impact Review of SSB 5043 Concerning industrial insurance coverage for posttraumatic stress disorders affecting correctional facility workers (2025 Legislative Session)

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Full review

The full Health Impact Review report is available at:

https://sboh.wa.gov/sites/default/files/2025-03/HIR-2025-05-SSB5043.pdf

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Executive Summary

SSB 5043, Concerning industrial insurance coverage for posttraumatic stress disorders affecting correctional facility workers (2025 Legislative Session)

Evidence indicates that SSB 5043 would likely result in some correctional facility workers filing workers' compensation claims related to PTSD and some claims being accepted, which would increase use of mental health services, improve mental health outcomes, and decrease mental health inequities for some correctional facility workers.

BILL INFORMATION

Sponsors: Senate Labor & Commerce (originally sponsored by Senators Dhingra, Nobles, Conway, MacEwen, Saldaña, Lovick, Salomon, Stanford, Wagoner, Wilson, J., Shewmake, Trudeau, Valdez, Bateman, Liias, Chapman, Lovelett, Cleveland, Frame, Hasegawa, Orwall, Slatter, Wellman, Wilson, C.)

Summary of Bill:

- Amends <u>RCW 51.08.142</u> to exclude certain correctional facility workers from the Washington State Department of Labor & Industries (L&I) rule that claims based on mental conditions and mental disabilities caused by stress do not fall within the definition of occupational disease for industrial insurance (workers' compensation).
- Adds a new section to <u>Chapter 51.32 RCW</u> specifying that it is a prima facie presumption^a that posttraumatic stress disorder (PTSD) is an occupational disease under <u>RCW 51.08.140</u> for correctional facility workers who develop PTSD after being employed on a fully compensated basis as a correctional facility worker in Washington State for at least 90 consecutive days.
- Defines correctional facility worker as an employee of the Washington State Department of Corrections (DOC) working at a correctional facility where adults sentenced to the jurisdiction of DOC are held in total confinement in a facility or institution operated directly by DOC.

^a Typically, the burden of proof in workers' compensation claim is on the employee to show that an injury is work-related or an illness is occupational (personal communications, February 2025). However, a prima facie presumption reverses the assumption. The prima facie presumption in the bill would establish that there is sufficient evidence that PTSD is an occupational disease by the nature of the person being employed as a correctional facility worker, if they meet specific criteria (personal communications, February 2025). Therefore, the burden of proof is on the employer to show that an employee's PTSD is not the result of their occupation (personal communications, February 2025).
^b SSB 5043 refers to the definition of correctional facility in RCW 72.09.015, which defines correctional facility as a facility or institution operated directly or by contract by the Secretary of Corrections for the purposes of incarcerating adults in total or partial confinement. However, the bill provisions only pertain to facilities where adults sentenced to the jurisdiction of DOC are held in total confinement in a facility or institution operated directly by DOC. That is, the bill does not relate to facilities where people are held in partial confinement or to facilities contracted by DOC.

^c <u>RCW 9.94A.030</u> defines "total confinement" to mean "confinement inside the physical boundaries of a facility or institution operated or utilized under contract by the state or any other unit of government for 24 hours a day" or

HEALTH IMPACT REVIEW

Summary of Findings:

This Health Impact Review found the following evidence for SSB 5043:

- **Informed assumption** that 1) excluding certain correctional facility workers from the L&I Mental condition/mental disabilities rule (WAC 296-14-300) and 2) creating a prima facie presumption that PTSD is an occupational disease for correctional facility workers who develop PTSD and meet specific criteria would likely result in some correctional facility workers filing workers' compensation claims related to PTSD and some claims being accepted, which would increase use of mental health services. This informed assumption is based on bill provisions, workers' compensation PTSD claims data for other occupations, and information shared by key informants.
- A fair amount of evidence that increasing use of mental health services among some correctional facility workers with PTSD would likely improve mental health outcomes.
- Strong evidence that improved mental health outcomes would likely decrease mental health inequities for some correctional facility workers.

work or labor camps. SSB 5043 only pertains to facilities where adults are held in total confinement in a facility or institution operated directly by DOC.

Introduction and Methods

A Health Impact Review is an analysis of how a proposed legislative or budgetary change will likely impact health and health disparities in Washington State (RCW 43.20.285). For the purpose of this review "health disparities" have been defined as differences in disease, death, and other adverse health conditions that exist between populations (RCW 43.20.025). Differences in health conditions are not intrinsic to a population; rather, inequities are related to social determinants (access to healthcare, economic stability, racism, etc.). This document provides summaries of the evidence analyzed by State Board of Health's Health Impact Review staff during the Health Impact Review of Substitute Senate Bill 5043 (SSB 5043).

Health Impact Review staff analyzed the content of SSB 5043 and created a logic model visually depicting the pathway between bill provisions, social determinants, and health outcomes and equity. The logic model reflects the pathway with the greatest amount and strongest quality of evidence. The logic model is presented both in text and through a flowchart (Figure 1).

We conducted an objective review of published literature for each step in the logic model pathway using databases including PubMed, Google Scholar, and University of Washington Libraries. The annotated references are only a representation of the evidence and provide examples of current research. In some cases, only a few review articles or meta-analyses are referenced. One article may cite or provide analysis of dozens of other articles. Therefore, the number of references included in the bibliography does not necessarily reflect the strength-of-evidence. In addition, some articles provide evidence for more than one research question and are referenced multiple times.

We consulted with people who have content and context expertise about the provisions and potential impacts of the bill. The primary intent of key informant interviews is to ensure staff interpret the bill correctly, accurately portray the pathway to health and equity, and understand different viewpoints, challenges, and impacts of the bill. In some instances, we retained relevant information related to correctional facility workers from key informants we spoke with during previous Health Impact Reviews. For this Health Impact Review, we spoke with 13 key informant interviewees, including: 12 state agency staff with expertise working with DOC correction facility workers and/or workers' compensation coverage and 1 person representing workers at DOC facilities. More information about key informants and detailed methods is available upon request.

We evaluated evidence using set criteria and determined a strength-of-evidence for each step in the pathway. The logic model includes information on the strength-of-evidence. The strength-ofevidence ratings are summarized as:

- Very strong evidence: There is a very large body of robust, published evidence and some qualitative primary research with all or almost all evidence supporting the association. There is consensus between all data sources and types, indicating that the premise is well accepted by the scientific community.
- **Strong evidence:** There is a large body of published evidence and some qualitative primary research with the majority of evidence supporting the association, though some sources may

have less robust study design or execution. There is consensus between data sources and types.

- A fair amount of evidence: There is some published evidence and some qualitative primary research with the majority of evidence supporting the association. The body of evidence may include sources with less robust design and execution and there may be some level of disagreement between data sources and types.
- **Expert opinion:** There is limited or no published evidence; however, rigorous qualitative primary research is available supporting the association, with an attempt to include viewpoints from multiple types of informants. There is consensus among the majority of informants.
- **Informed assumption:** There is limited or no published evidence; however, some qualitative primary research is available. Rigorous qualitative primary research was not possible due to time or other constraints. There is consensus among the majority of informants.
- **No association:** There is some published evidence and some qualitative primary research with the majority of evidence supporting no association or no relationship. The body of evidence may include sources with less robust design and execution and there may be some level of disagreement between data sources and types.
- Not well researched: There is limited or no published evidence and limited or no qualitative primary research and the body of evidence was primarily descriptive in nature and unable to assess association or has inconsistent or mixed findings, with some supporting the association, some disagreeing, and some finding no connection. There is a lack of consensus between data sources and types.
- **Unclear:** There is a lack of consensus between data sources and types, and the directionality of the association is ambiguous due to potential unintended consequences or other variables.

This review was requested during legislative session and was therefore subject to the 10-day turnaround required by law. This review was subject to time constraints, which influenced the scope of work for this review.

Analysis of SSB 5043 and the Scientific Evidence

Summary of relevant background information

- There are 5 public safety employment sectors: fire service, wildland fire service, emergency medical services (EMS), law enforcement, and corrections. Public safety workers are employed in some of the most dangerous occupations.
- In 2018, the National Institute for Occupational Safety and Health's (NIOSH) National Occupation Research Agenda (NORA), Public Safety Council recommended greater research to "identify the incidence and impact of violent encounters during daily interactions for correctional officers" as well as research to "identify, prevent, and treat mental or behavioral health problems before they evolve into [posttraumatic stress disorder] PTSD, depression, alcoholism, or drug use for public safety sector employees" (including corrections staff).
- The American Psychiatric Association *Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) (2013)* classifies PTSD as a trauma- and stress-related disorder requiring exposure to a traumatic or stressful event and outlines 8 categories of diagnostic criterion for PTSD.²
 - o In 2013, the diagnostic definition of PTSD was expanded to include indirect exposure in criterion A4.^{3,4} Specifically, PTSD may be diagnosed if a person experienced, "indirect exposure to averse details of the trauma, usually in the course of professional duties (e.g., first responders, medics)."²
 - o In 2022, an updated *DSM-5-TR* was released.² No changes were made to the PTSD criterion.²

Washington State law and policies

- Under Washington State's industrial insurance (workers' compensation) laws, a worker who is injured or suffers disability from an occupational disease in the course of employment is entitled to certain benefits. An occupational disease (RCW 51.08.140) is one that arises naturally and proximately out of employment.
- RCW 51.08.142 required the Department of Labor and Industries (L&I) to adopt a rule that claims based on mental conditions or mental disabilities caused by stress do not fall within the definition of occupational disease.
 - o L&I adopted WAC 296-14-300, Mental condition/mental disabilities.
 - However, stress resulting from a single traumatic event (e.g., actual or threatened death, actual or threatened physical assault, actual or threatened sexual assault, and life-threatening traumatic injury) may be considered an industrial injury (RCW 51.08.100) under workers' compensation.
 - RCW 51.32.185 establishes that L&I's rule does not apply to occupational disease claims resulting from PTSD of certain firefighters, law enforcement officers, public safety telecommunicators, and direct care registered nurses under specific circumstances.
 - However, PTSD is not considered an occupational disease if the disorder is directly attributed to disciplinary action, work evaluation, job transfer,

layoff, demotion, termination, or similar action taken in good faith by an employer.

- PTSD (<u>RCW 51.08.165</u>) means a disorder that meets the diagnostic criteria for posttraumatic stress specified in the *DSM-5*, or in a later edition adopted by L&I in rule.
- The Board of Industrial Insurance Appeals (BIIA) is an independent Washington State agency separate from L&I. The BIIA hears appeals from decisions made by L&I in several areas, including workers' compensation.⁵
- The Washington State Department of Corrections (DOC) operates 11 state prisons with custody levels ranging from minimum to maximum security.⁶

Summary of SSB 5043

- Amends RCW 50.08.142 to exclude certain correctional facility workers from the L&I rule that claims based on mental conditions and mental disabilities caused by stress do not fall within the definition of occupational disease for workers' compensation.
- Adds a new section to Chapter 51.32 RCW specifying that it is a prima facie presumption^d that PTSD is an occupational disease under RCW 51.08.140 for correctional facility workers who develop PTSD after being employed on a fully compensated basis as a correctional facility worker in Washington State for at least 90 consecutive days.
 - o The presumption may be rebutted by a preponderance of evidence.
 - The presumption remains following termination of employment based on a specified time period but may not extend more than 60 months following the last day of employment.
 - The presumption may be appealed to the BIIA or to any court. If the final decision allows the claim for benefits, the BIIA or the court shall order the opposing party to pay the costs of the appeal, including attorneys' fees and witness fees.
 - When costs of the appeal must be paid by L&I, the costs must be paid from the Accident Fund and charged to the costs of the claim.
- Defines correctional facility worker as an employee of DOC working at a correctional facility where adults sentenced to the jurisdiction of DOC are held in total confinement in a facility or institution operated directly by DOC.

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^d Typically, the burden of proof in workers' compensation claim is on the employee to show that an injury is work-related or an illness is occupational (personal communications, February 2025). However, a prima facie presumption reverses the assumption. The prima facie presumption in the bill would establish that there is sufficient evidence that PTSD is an occupational disease by the nature of the person being employed as a correctional facility worker, if they meet specific criteria (personal communications, February 2025). Therefore, the burden of proof is on the employer to show that an employee's PTSD is not the result of their occupation (personal communications, February 2025). ^e SSB 5043 refers to the definition of correctional facility in RCW 72.09.015, which defines correctional facility as a facility or institution operated directly or by contract by the Secretary of Corrections for the purposes of incarcerating adults in total or partial confinement. However, the bill provisions only pertain to facilities where adults sentenced to the jurisdiction of DOC are held in total confinement in a facility or institution operated directly by DOC. That is, the bill does not relate to facilities where people are held in partial confinement or to facilities contracted by DOC.

f RCW 9.94A.030 defines "total confinement" to mean "confinement inside the physical boundaries of a facility or institution operated or utilized under contract by the state or any other unit of government for 24 hours a day" or

Health impact of SSB 5043

Evidence indicates that SSB 5043 would likely result in some correctional facility workers filing workers' compensation claims related to PTSD and some claims being accepted, which would increase use of mental health services, improve mental health outcomes, and decrease mental health inequities for some correctional facility workers.

Pathway to health impacts

The potential pathway leading from provisions of SSB 5043 to health and equity are depicted in Figure 1. We made the informed assumptions that 1) excluding certain correctional facility workers from the L&I Mental condition/mental disabilities rule (WAC 296-14-300) and 2) creating a prima facie presumption that PTSD is an occupational disease for correctional facility workers who develop PTSD and meet specific criteria would likely result in some correctional facility workers filing workers' compensation claims related to PTSD and some claims being accepted, which would increase use of mental health services. These informed assumptions are based on bill provisions, workers' compensation PTSD claims data for other occupations, and information shared by key informants. There is a fair amount of evidence that increasing use of mental health services among some correctional facility workers would likely improve mental health outcomes. There is strong evidence that improved mental health outcomes would likely decrease mental health inequities for some correctional facility workers.^{1,7-11}

Scope

Due to time limitations, we only researched the most linear connections between provisions of the bill and health and equity and did not explore the evidence for all possible pathways. For example, we did not evaluate potential impacts related to:

People incarcerated in DOC facilities. Use of mental health services among correctional workers may affect interactions with the people they supervise in DOC facilities. Key informants previously stated that the welfare of officers may impact the welfare of people who are incarcerated (personal communication, May 2021). Moreover, key informants stated that it is dangerous for people experiencing mental health concerns to work with people who are incarcerated and may also be experiencing mental health concerns (personal communication, DOC, March 2025). Researchers have stated that there is no published "literature that specifically examines the link between symptoms of mental disorders, such as PTSD, and provision of services in correctional settings."8 However, research has shown that people who are incarcerated are "adversely affected when service providers' ability to compassionately fulfill their roles is compromised."8 Research from other fields has suggested that "[r]esponsivity and the ability to build and maintain a therapeutic alliance between care recipient and provider can be impaired if the care provider is also struggling with compromised mental health."8 This Health Impact Review did not explore evidence for how access to and use of mental health services by correctional facility workers may affect people incarcerated in DOC facilities.

work or labor camps. SSB 5043 only pertains to facilities where adults are held in total confinement in a facility or intuition operated directly by DOC.

- Other correctional facility workers. Key informants noted that when correctional facility workers call out or take leave other DOC staff members are also impacted as the facility needs to ensure appropriate staffing coverage (personal communication, DOC, February 2025). DOC's fiscal note for the original version of SB 5043 states, "[d]ue to unknown factors, DOC is not able to provide the amount of custody relief positions that would be needed for employees who may be out on leave due to the approved PTSD claims through L&I. The DOC assumes that any employee providing custody relief coverage would be qualified to receive over-time (OT) compensation in addition to the regular salary."12 DOC staff stated that different departments may be impacted differently due to potential approved leave (personal communication, DOC, February 2025). Research has suggested that "elevated rates of officer turnover and absenteeism can lead to higher [prison population]-to-officer ratios and greater numbers of...assault." Overall, resulting "staff shortages and officer absences from work can create a cycle whereby low officerto-[prison population] ratios and high turnover in officer staffing threaten the effective implementation of a correctional facility's security mandates." This Health Impact Review did not explore evidence for how access to and use of mental health services by correctional facility workers may affect other DOC staff.
- Families and communities. Increased use of mental health services among correctional facility workers may affect the health of their families and communities. This Health Impact Review did not evaluate how access to and use of mental health services by correctional workers may affect broader community health.
- Staff working at other prison, juvenile rehabilitation, or jail facilities in Washington State. SSB 5043 applies to employees of DOC working at a correctional facility where adults sentenced to the jurisdiction of DOC are held in total confinement in a facility or institution operated directly by DOC. The bill provisions do not apply to staff working with people sentenced to partial confinement or community supervision, staff working at facilities contracted by DOC, staff working in juvenile rehabilitation facilities, ¹² or staff working in local and county jails. ¹² Staff working in these facilities also experience violence, assault, and traumatic events on a reoccurring basis and may also experience PTSD due to work-related stress (personal communications, February-March 2025). This Health Impact Review did not assess mental health conditions experienced by staff working in these facilities or examine potential inequities SSB 5043 may create among correctional employees by facility type.
- PTSD prevention. Key informants stated that prevention of PTSD for correctional facility workers is important to build resiliency and to reduce the burden of mental health conditions for workers (personal communications, February 2025). There are 3 levels of potential PTSD prevention efforts. Primary prevention of PTSD includes reducing exposure to traumatic events and preparing workers for potential exposure to traumatic events (personal communication, L&I, February 2025). Secondary prevention of PTSD includes early identification and interventions for workers exposed to events likely to cause acute stress to reduce the impact once exposure to a traumatic event has occurred

(personal communication, L&I, February 2025). 10 Tertiary prevention includes treating the impact of PTSD once it has developed (personal communication, L&I, February 2025). 10 Key informants stated that there is limited evidence related to primary prevention programs in other professions; however, developing behavioral health programs may assist in diminishing the outcomes of other stress related conditions, such as depression, suicidality, and substance use (personal communications, L&I, March 2025). L&I staff shared they are working on clinical guidelines related to the treatment of PTSD based on work of the Industrial Insurance Medical Advisory Committee (RCW 51.36.140) and an external, contracted study (personal communication, L&I, March 2025). Researchers have emphasized the importance of interventions that adopt traumainformed care and practices, reduce PTSD risk factors, promote PTSD protective factors, and promote resilience to stress among correctional facility workers.^{7,8,10} For example, a meta-analysis demonstrated that reductions in PTSD occur following "multimodal, holistic programs that promoted resilience, stress, and emotion regulation among at-risk workers."10 This Health Impact Review did not assess how PTSD prevention efforts may help to alleviate mental health conditions for correctional facility workers or impact occupational PTSD-related workers' compensation claims.

Pensions. Key informants stated that, in some instances, a traumatic event or cumulative impact may be debilitating and render an employee permanently and totally disabled and not capable of any employment (personal communications, February-March 2025). In these instances, workers' compensation provides a process that allows people access to a pension (personal communications, February-March 2025). Since 2018, the State Fund has received, allowed, and closed 18 PTSD claims for law enforcement officers with the worker being granted a pension. 12 L&I granted a pension for 30% of the 60 PTSD claims from law enforcement officers received, allowed, and closed by L&I.¹² Pensions are typically calculated based on an injured worker's time loss compensation rate, which is 60% of an employee's wages at the time of injury, plus an additional 5% if an employee is married and an additional 2% per dependent (up to 10%) (personal communication, DOC, March 2025). However, the pension rate can be reduced due to social security offset, prior impairment awards, etc. (personal communication, DOC, March 2015) Key informants shared different perspectives on how potential access to pensions may impact the use of workers' compensation for PTSD. Some key informants expressed concerns that the presumption creates an adverse incentive within the system as a worker who is unable to return to work may be granted a significant L&I pension, which combined with their public employee pension may be more than their usual earnings (personal communications, February 2025). Additionally, many PTSD pension claims include an order awarding ongoing mental health treatment (personal communication, L&I, March 2025). This Health Impact Review did not examine potential impacts of workers' compensation pension outcomes.

Magnitude of impact

SSB 5043 has the potential to impact certain correctional facility workers employed in certain DOC correctional facilities and institutions.

Correctional facilities

SSB 5043 refers to the definition of correctional facility in <u>RCW 72.09.015</u>, which defines correctional facility as a facility or institution operated directly or by contract by the Secretary of Corrections for the purposes of incarcerating adults in total or partial confinement. However, the bill provisions only pertain to facilities where adults sentenced to the jurisdiction of DOC are held in total confinement in a facility or institution operated directly by DOC. That is, SSB 5043 does not relate to facilities where people are held in partial confinement or to facilities contracted by DOC.

DOC operates 11 state prisons with custody levels ranging from minimum to maximum security. DOC stated that all 11 state prisons meet the definition of correctional facilities specified in SSB 5043 (i.e., are facilities where adults are held in total confinement and are operated directly by DOC) (personal communication, DOC, February 2025). Additional DOC facilities (e.g., as part of the Community Corrections Division, reentry facilities, and work release programs) do not meet this definition of correctional facility (personal communication, DOC, February 2025).

Correctional facility workers

DOC is a Washington State executive branch agency. DOC is the second largest executive branch employer, accounting for 12% of the Washington State agency workforce. As of December 31, 2024, there were 9,079 DOC employees. DOC employees may work in centralized statewide or regional offices as well as at DOC correctional facilities and institutions across the state (personal communication, Teamsters Local 117, February 2025). As of February 28, 2025, there were 6,370 DOC employees working in the 11 DOC state prison facilities (unpublished data, DOC, February 2025). There were 4,257 custody staff, 710 medical staff, and 1,403 general staff working in the 11 state prison facilities (unpublished data, DOC, February 2025).

The bill defines correctional facility worker as an employee of DOC working at a correctional facility where adults sentenced to the jurisdiction of DOC are held in total confinement in a facility or institution operated directly by DOC. Specifically, all DOC employees may be impacted by provisions of SSB 5043 if they meet the following criteria:

- Are employed at a correctional facility where adults sentenced to the jurisdiction of DOC are held in total confinement in a facility or institution operated directly by DOC (i.e., at the 11 state prison facilities). The bill does not relate to facilities where people are held in partial confinement or to facilities contracted by DOC.
- Are employed on a fully compensated basis. Key informants stated that SSB 5043 pertains to all DOC state employees, regardless of job classification, work activities (custody, medical, administrative, transporters, mail room clerks, supervisors, etc.), or job status (e.g., permanent, project) (personal communications, February 2025). The bill does not relate to people who are currently incarcerated and working in a DOC facility or institution or for Washington State Correctional Industries, as these workers are not employed on a fully compensated basis (personal communication, Teamsters Local 117, February 2025).

• Have been employed as a correctional facility worker in Washington State for at least 90 consecutive days.

Therefore, SSB 5043 has the potential to impact all DOC employees who meet these criteria.

DOC psychology staff

DOC employs a Staff Psychology Administrator as well as 6 regional staff psychologists (personal communication, DOC, March 2025). DOC psychology staff are available to support any DOC staff experiencing trauma, violence, assault, or stress in the workplace (personal communication, DOC, March 2025). Each regional staff psychologist is available to support approximately 1,500 DOC staff and manages 1 or 2 teams of peer-support specialists (personal communication, DOC, March 2025). Peer-support teams consist of a range of DOC staff (e.g., correctional officers, administrative staff), and peer-support specialists receive 40 hours of initial training as well as 8 hours of monthly training (related to self-regulation, co-regulation, communication, etc.) to support DOC staff who experience trauma in the workplace (personal communication, DOC, March 2025). Following a critical incident (e.g., assault), a peer-support team will connect with potentially impacted staff and perform an initial assessment to identify an approach to help address staff needs (personal communication, DOC, March 2025). Regional staff psychologists provide clinical oversight for the teams and provide a more acute response to staff involved in the incident (personal communication, DOC, March 2025). In addition to responding to specific incidents, DOC psychology staff also provide stress and resilience training during DOC's New Employee Orientation; connect staff with mental health resources; and help supervisors navigate situations with staff in crisis (personal communication, DOC, March 2025).

Posttraumatic stress disorder (PTSD)

A report by the National Institute of Justice stated that, "many scholars conclude that employment as a [correctional officer] is among the most dangerous and life threatening of all professions, including law enforcement." Moreover, "prisons [are] dangerous environments that carry increased risk of harm to the people working in them." Correctional officers "are required to interact with and supervise potentially dangerous [people] in relatively unsafe and secluded surroundings. Specifically, "the violent and chaotic nature of prison work has been shown to negatively impact prison employee physical health, mental health, sleep, personal life, and general wellness." Correctional officers may experience multiple work-related dangers, including exposure to infectious and communicable diseases, prison gangs, disruptive people, contraband items, riots, and people in distress. They experience increased risk of adverse physical and mental health outcomes, including increased risk of injury, heart disease, hypertension, high cholesterol, diabetes, metabolic disease, stress, burnout, etc. 7,9

Correctional employment is a "uniquely stressful occupation with regular and ongoing exposure to violence and threat of harm. Chronic exposure to these kinds of stressors represents a significant risk factor for mental illness." Correctional workers experience high levels of psychological distress, anxiety, depression, suicide ideation, death by suicide, and lower life expectancy.⁷⁻⁹

Research has found that 19% to 44% of correctional facility workers in the U.S. experience PTSD.^{7,8,10} Research from other countries have found higher PTSD rates for some correctional worker job classifications. For example, 32.6% of correctional officers and 17.2% of correctional

wellness staff working in Canadian federal prisons screened positive for PTSD.⁸ Although correctional officers were significantly more likely to screen positive for some mental health outcomes (e.g., PTSD) than correctional wellness staff, outcomes for wellness staff were still significantly higher than the general public.⁸ Correctional workers that screened positive for PTSD reported significantly higher rates of memory impairment, depression, sleep difficulties, digestive problems, heart disease, skin conditions, and obesity compared to correctional workers that screened negative for PTSD.⁸

Specific to Washington State, researchers conducted a survey in the summer of 2013 with 355 DOC employees to evaluate the prevalence, risk factors, and protective factors of PTSD.⁷ The majority of survey respondents (65%) were correctional officers.⁷ Other respondents included medical, counseling, and administrative staff.⁷ Researchers found that 19% of DOC employees "met the criteria for diagnosable PTSD."⁷ They also found "a high rate of stress symptoms, even among prison workers who did not meet PTSD criteria."⁷ For example, 15% of DOC employees experienced bad dreams related to work events; 14% avoided memories or reminders of workplace traumas; and 10% experienced disturbing flashbacks.⁷ Notably, the researchers found that PTSD scores did not differ based on facility type, job classification, or percentage of time spent directly with people who are incarcerated, indicating that all correctional facility workers may experience PTSD and efforts to reduce the prevalence of PTSD "should not focus solely on correction officers or higher security prisons."⁷

The literature has not assessed the impact of personal or occupational history on the incidence of PTSD among correctional facility workers. However, research has found that risk factors for PTSD among correctional facility workers may include higher ambiguity in job role and exposure to critical incidents at work. While there are no national standards or common approaches to defining critical incidents or addressing critical incidents after they occur for correctional facility workers, critical incidents are generally defined as "trauma-inducing experiences where there is a threat to safety, well-being, or integrity, and exposure to these incidents may [cause] feelings of vulnerability, a perceived inability to maintain control, safety, or security, and distressing reactions such as fear and helplessness." For example:

approximately a quarter of prison employees routinely experience serious threats to themselves or their families, almost half have witnessed coworkers being seriously injured by [people who are incarcerated], over a half have witnessed [a person who is incarcerated] dying or encountered a recently dead [person], and the vast majority have dealt with [people who are incarcerated] who have been recently beaten and/or sexually assaulted.⁷

Additionally, research has found that correctional facility workers are exposed to multiple incidents on a repetitive basis, rather than isolated or one-time events. A study with 105 correctional facility workers in the U.S. asked staff to report whether they experienced a critical incident: never; 1-9 times; 10-50 times; or more than 50 times. Among higher occurrence reports, 36% of correctional facility workers reported 10-50 occurrences of coworker injured; 12% reported 10-50 occurrences of badly beaten adult; and 11% reported 10-50 occurrences of seeing someone dying. Six percent of correctional facilities workers reported more than 50 occurrences of "life threatened"; 3% reported more than 50 occurrences of "coworker injured"; and 1% reported more than 50 occurrences of "sexually assaulted adult." DOC staff stated that they may experience critical incidents on a daily basis (personal communication, DOC, February 2025).

A body of research has demonstrated that exposure to critical incidents is strongly correlated with PTSD. ¹⁰ One study found that 59% of correctional facility workers were exposed to critical incidents, and corrections staff exposed to critical incidents were more likely to report symptoms of PTSD. ¹⁰ A Canadian study showed that "the rates of some mental disorders (i.e., PTSD, generalized anxiety disorder, panic disorder, social anxiety disorder) correlated positively with the number of exposures to different [critical incidents]."

Overall, a large percentage of correctional facility workers, regardless of job classification or work activities, experience PTSD.

Workers' compensation claims

There are about 101,000 workers' compensation claims filed in Washington State each year. ¹² Approximately 13.8% of claims are appealed. ¹² Of claims that are appealed, about 60% are appealed to the BIIA and later granted. ¹² Claims may also be resolved in mediation or litigation. ¹²

PTSD-related occupational disease presumptions were established for certain occupations beginning in 2018. From 2018 through September 30, 2024, there were 715 occupational PTSD-related claims, including 435 occupational PTSD-related claims through state-funded workers' compensation and 280 occupational PTSD-related claims through self-insurance (unpublished data, L&I, February 2025). The majority of presumptive PTSD claims are accepted (79% of state-funded workers' compensation claims and 77% of self-insured claims) (unpublished data, L&I, February 2025).

In the fiscal note for the original version of SB 5043, DOC estimated the number of correctional facility workers who may file a claim related to PTSD. DOC based their estimates on claim rates of law enforcement officers "given the similarity in job duties" and for certain DOC job classifications. Since 2018, there have been 60 PTSD-related claims for law enforcement officers. Under current law, there are 4.15 PTSD-related claims per 1,000 eligible law enforcement officers and firefighters.

Based on the PTSD-related claims rate for law enforcement officers and firefighters, DOC estimates that about 18 custody staff and 3 medical staff would apply for PTSD-related claims annually if the bill were to pass. ¹² Therefore, about 21 occupational PTSD-claims may be filed by DOC staff per fiscal year following bill implementation. ¹² However, the fiscal note estimates are not inclusive of all DOC job classifications, and employees would be impacted by SSB 5043 regardless of their job classification and work activities. Moreover, the fiscal note for L&I states that there will likely be more claims related to PTSD for correctional facility workers than the current claim rate for law enforcement officers and firefighters. ¹² Therefore, the estimates presented in the fiscal note for the original version of SB 5043 may be an underestimate of potential PTSD-related claims by correctional facility workers.

DOC also estimated the potential number of staff that may be diagnosed with PTSD based on findings from the 2013 survey with 355 DOC staff, estimates of PTSD among direct care nurses, and estimates of PTSD among the general public (personal communication, DOC, February 2025). Based on these sources, DOC estimated that 851 custody staff, 170 medical staff, and 95

general DOC staff may experience PTSD (unpublished data, DOC, February 2025). However, research has shown that all correctional facility staff, regardless of job classification or work activities, experience PTSD at rates higher than the general public, suggesting this may also be an underestimate for some job categories. DOC assumed that only 38% (425) of staff experiencing PTSD may initiate a PTSD-related workers' compensation claim (unpublished data, DOC, February 2025).

Lastly, L&I conducted an actuarial assessment and determined that "the midpoint actuarial estimate of new PTSD claims that will be filed by correctional facility workers annually is 54 claims." However, based on the highest claims scenario, L&I estimated that the bill may result in 75 new workers' compensation claims per year, with about 10 new appeals per year. 12

While estimates vary and it is difficult to anticipate the exact number of DOC employees who may initiate PTSD-related workers' compensation claims, correctional facility workers would likely file some number of occupational PTSD-related workers' compensation claims each year if SSB 5043 were to pass.

Overall, SSB 5043 has the potential to affect certain correctional facility workers in Washington State.

Logic Model

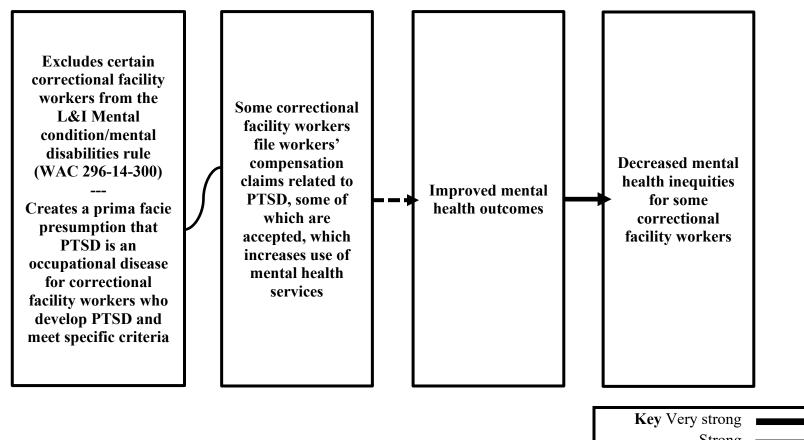
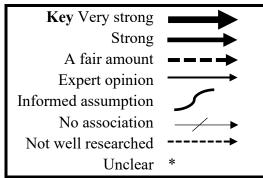


Figure 1:
Concerning industrial insurance coverage for posttraumatic stress disorders affecting correctional facility workers

SSB 5043



Summaries of Findings

Would 1) excluding certain correctional facility workers from the Washington State Department of Labor and Industries (L&I) Mental condition/mental disabilities rule (WAC 296-14-300) and 2) creating a prima facie presumption that posttraumatic stress disorder (PTSD) is an occupational disease for correctional facility workers who develop PTSD and meet specific criteria result in some workers filing workers' compensation claims related to PTSD, some claims being accepted, and increased use of mental health services?

We have made the informed assumption that 1) excluding certain correctional facility workers from the L&I Mental condition/mental disabilities rule (WAC 296-14-300) and 2) creating a prima facie presumption that PTSD is an occupational disease for correctional facility workers who develop PTSD and meet specific criteria would likely result in some correctional facility workers filing workers' compensation claims related to PTSD and some claims being accepted, which would increase use of mental health services. This informed assumption is based on bill provisions, workers' compensation PTSD claims data for other occupations, and information shared by key informants from L&I, Department of Corrections (DOC), and Teamsters Local 117 (i.e., the union which represents DOC employees).

Under Washington State's workers' compensation laws, a worker who is injured or suffers disability from an occupational disease (RCW 51.08.140) in the course of employment is entitled to certain benefits. RCW 51.08.142 requires L&I to adopt a rule (WAC 296-14-300) that claims based on mental conditions or mental disabilities caused by stress do not fall within the definition of occupational disease. However, stress resulting from a single traumatic event may be considered an industrial injury. ¹⁴ Industrial injury requirements necessitate mental health claims pertain to a single critical event (e.g., physical injury, assault) and be filed within 1 year of the event. This restricts access for people whose conditions result from multiple exposures and for people who are diagnosed more than 1 year after the event.

In recent years, the Washington State Legislature passed legislation to exclude certain first responders and nurses from L&I's Mental condition/mental disabilities rule. Specifically, L&I's rule does not apply to occupational disease claims resulting from PTSD of certain firefighters, law enforcement officers, public safety telecommunicators, and direct care registered nurses under specific circumstances. ¹⁴ For these occupations, employees may file a workers' compensation claim related to PTSD for multiple, reoccurring, chronic exposures (i.e., claims do not have to be related to a single critical event, but rather related to career exposures) (personal communications, DOC, March 2025). However, PTSD is not considered an occupational disease if the condition is directly related to disciplinary action, work evaluation, job transfer, layoff, demotion, termination or similar action taken in good faith by an employer. ¹²

Additionally, lawmakers established a prima facie presumption that PTSD is an occupational disease for certain firefighters and law enforcement officers (RCW 51.32.185) and direct care registered nurses (RCW 51.32.395). Typically, the burden of proof in workers' compensation claim is on the employee to show that an injury is work-related or an illness is occupational (personal communications, February 2025). However, a prima facie presumption reverses the assumption. A prima facie presumption establishes that there is sufficient evidence that PTSD is an occupational disease by the nature of the person being employed in a specified occupation, if

they meet criteria (personal communications, February 2025). Therefore, the burden of proof is on the employer to show that an employee's PTSD is not the result of their occupation (personal communications, February 2025). The current presumption only applies to active or former firefighters and law enforcement officers who have PTSD that develops or manifests itself after the person has served at least 10 years. For direct care registered nurses, the current presumption applies to those who have PTSD that develops or manifests itself after they have been employed on a fully compensated basis as a direct care registered nurse in Washington State for at least 90 consecutive days. The presumption for each occupation may be rebutted by preponderance of the evidence. Such evidence may include, but is not limited to, lifestyle, hereditary factors, and exposure from other employment or nonemployment activities.¹⁴

SSB 5043 would add certain correctional facility workers to the list of occupations excluded from L&I's rule, which would allow correctional facility workers to submit workers' compensation claims for PTSD as an occupational disease (i.e., for multiple, reoccurring, chronic exposures, rather than linked to a specific event). Correctional facility workers covered under the bill language are limited to those who: 1) are employed at a correctional facility where adults sentenced are held in total confinement in a facility or institution operated directly by DOC; 2) are employed on a fully compensated basis; and 3) have been employed as a correctional facility worker for at least 90 consecutive days. The bill would also extend presumptive coverage for PTSD as an occupational disease to certain correctional facility workers, similar to coverage now provided for certain firefighters, law enforcement officers, and direct care registered nurses. As with certain first responders and nurses, the presumption may be rebutted with a preponderance of the evidence. SSB 5043 does not specify which evidence may be used as part of a rebuttal.

If SSB 5043 were to pass, L&I stated the bill would require rulemaking to amend WAC 296-14-300, Mental condition/mental disabilities. ¹² Key informants stated that L&I would likely communicate with healthcare providers about changes to law (personal communications, DOC, March 2025). For example, L&I may communicate with providers through established distribution lists or outreach with providers (personal communication, L&I, March 2025). Key informants stated DOC correctional facility workers may learn about the change to law through a variety of communication channels (e.g., Teamsters Local 117; the Employee Assistance Program; DOC supervisors, Human Resources staff, and claims staff; DOC internal communications) (personal communications, February-March 2025). Additionally, DOC psychology staff may support DOC staff potentially experiencing PTSD symptoms by providing information about PTSD; discussing the process for PTSD treatment; recommending a mental healthcare provider in the community; or informing staff of the process for filing a workers' compensation claim (personal communication, DOC, March 2025).

Key informants generally agreed that implementation of SSB 5043 would result in some workers filing claims (personal communications, February 2025). Allowing PTSD-related claims as a workers' compensation benefit may help to normalize and reduce barriers to seeking treatment for mental health conditions (personal communications, February 2025). Research with other first responders has shown internalized or self-stigma is associated with decreased likelihood of having accessed mental health care in the past, decreased intent to seek care in the future, and higher barriers to care. Key informants working with DOC staff stated that there is a workplace culture to "suffer in silence" and asking for help related to mental health is not the norm

(personal communication, DOC, March 2025). Key informants noted that by establishing the presumption that PTSD is an occupational disease, workers would not have to prove their diagnosis is the result of work, which may alleviate pressure and remove barriers to getting treatment (personal communications, Teamsters Local 117, February 2025). Key informants stated that acknowledging in state law that PTSD and trauma are occupational hazards of working in a correctional setting may help reduce feelings of isolation and hopelessness for DOC staff; improve morale; and encourage staff to access needed resources (personal communication, DOC, March 2025). Lastly, key informants stated that, unlike health insurance which provides coverage for treatment and may require people to pay a copay, workers' compensation covers treatment at no cost to the employee and provides partial wage replacement (personal communications, February 2025). Therefore, workers' compensation time-loss benefits may provide a level of economic stability necessary for some workers to pursue a claim and seek treatment.

Key informants stated that a correctional facility worker who anticipates they may have PTSD symptoms may choose to seek care in a variety of ways. Correctional facility workers may choose not to seek treatment (e.g., due to personal privacy, perceived stigma, workplace culture); may pursue treatment using personal health insurance; or, if SSB 5043 were to pass, may pursue treatment through a workers' compensation claim (personal communications, February-March 2025). If an employee chooses to pursue treatment through a workers' compensation claim, they must first receive an initial diagnosis of PTSD from a healthcare provider (personal communications, February 2025). Employees typically present to their established healthcare provider (e.g., primary care provider) but may present to any provider (e.g., urgent care provider, mental health provider, specialist) (personal communications, February-March 2025). Healthcare providers routinely ask a person whether their condition may be work-related and, if so, whether they would like to file a "Report of Accident" to begin the workers' compensation process (personal communication, DOC, March 2025). A healthcare provider may indicate potential PTSD on the Report of Accident (personal communications, February-March 2025). Once an employee receives an indication of potential PTSD from a healthcare provider, they may file a PTSD-related workers' compensation claim (personal communication, L&I, February 2025). Key informants stated that this process of seeking out medical documentation in order to begin a workers' compensation claim may facilitate DOC staff connection to providers and increase DOC staff seeking and accessing mental healthcare (personal communication, DOC, March 2025).

After filing a claim, a mental health examination must be performed by a certified mental health provider (i.e., psychologist, psychiatrist, or psychiatric advanced practice registered nurse) in the workers' compensation system (personal communication, L&I, February-March 2025). L&I staff stated that there are different types of providers who can diagnose PTSD within the workers' compensation system; however, not all providers may have the expertise necessary to diagnose PTSD (e.g., primary care provider) (person communication, L&I, February 2025). In instances of suspected PTSD, a certified mental healthcare provider must conduct a mental health examination to confirm a PTSD diagnosis (personal communication, L&I, February 2025). L&I staff stated that an initial mental health evaluation may be conducted via telehealth appointment, but a person is required to be seen in-person within the first 6-months of treatment (personal communication, L&I, February 2025).

Key informants expressed different views about how allowing occupational PTSD-related claims through workers' compensation may impact access to mental healthcare. Some key informants stated that workers' compensation may expand care options by allowing workers to see mental healthcare providers who may not be accessible through the employee's health insurance (personal communications, February 2025). For example, while there may be a limited number of providers who accept a specific health insurance, additional providers may accept workers' compensation (personal communications, February 2025). Key informants noted that state prison facilities are in remote and hard to access areas of the state (personal communication, Teamsters Local 117, February 2025). They stated that these geographies may have limited access to care and limited provider options, and so expanding care options to include healthcare providers in the workers' compensation system may increase access to mental healthcare providers in these areas (personal communications, February 2025). Telehealth options may also expand access to providers; however, key informants stated telehealth may not be appropriate for some patients and care needed (personal communications, February-March 2025). On the other hand, L&I staff stated that not all mental healthcare providers may have expertise in diagnosing or treating PTSD, which may limit access to care (personal communication, L&I, February 2025). DOC staff emphasized the importance for correctional staff and other first responders to receive culturally-appropriate care from providers with expertise related to occupational trauma they may experience in the workplace (personal communication, DOC, March 2025). Key informants stated there are very few providers statewide with this type of expertise (personal communication, DOC, March 2025).

Workers' compensation claims data from other professions indicate that allowing claims for occupational PTSD has resulted in some workers filing claims and some claims being accepted. From 2018 through September 30, 2024, there have been 715 occupational PTSD-related claims, including 435 occupational PTSD-related claims through state-funded workers' compensation and 280 occupational PTSD-related claims through self-insurance (unpublished data, L&I, February 2025). The majority of presumptive PTSD claims are accepted (79% of state-funded workers' compensation claims and 77% of self-insured claims) (unpublished data, L&I, February 2025). In addition, about 13.8% of claims are appealed. Of claims that are appealed, about 60% are appealed to the BIIA and later granted. DOC staff stated that, as of 2023, PTSD screening is included as part of pre-employment, baseline psychology evaluation to determine if a potential employee may be experiencing PTSD, which could impact whether a DOC employee experiencing PTSD symptoms would receive a presumption later in their career (personal communications, DOC, March 2025). Based on other occupational PTSD-related claims, a majority of occupational PTSD-related claims filed by correctional facility workers may likely be accepted.

In the fiscal note for the original version of SB 5043, L&I stated that "[t]he average PTSD claim received requires [2] years from receipt to resolution. PTSD claims are complex and require more time from the claim manager than other claims L&I manages." Key informants explained that a workers' compensation claim remains open until the workers' compensation healthcare provider determines an employee has reached maximum medical improvement (personal communications, February 2025). This means the workers' condition has either resolved or is stable and no further medical treatment will help their condition improve (personal communication, L&I, February 2025). The claim is then resolved (i.e., closed without permanent

impairment, closed with permanent impairment, or closed with a pension) but may be reopened if a worker experiences another traumatic incident or requires additional care (personal communications, February 2025). While SSB 5043 would only allow a workers' compensation claim to be filed if the worker receives a PTSD occupational disease diagnosis, key informants shared that, if another work-related mental health diagnosis develops or is identified during the course of a worker's treatment for PTSD, treatment for another diagnosis (e.g., anxiety, depression) may also be covered within the claim (personal communication, L&I, February 2025).

Since bill provisions would allow correctional facility workers to file occupational disease claims resulting from PTSD and create a prima facie presumption that PTSD is an occupational disease for correctional facility workers, and since occupational PTSD-related claims data from other occupations show that workers file claims, claims are accepted, and claims remain open until the workers' condition has either resolved or no further medical treatment will help their condition improve, we have made the informed assumption that SSB 5043 would likely result in some correctional facility workers filing workers' compensation claims related to PTSD and some claims being accepted, which would increase use of mental health services for these workers.

Would increased use of mental health services among some correctional facility workers improve mental health outcomes?

There is a fair amount of evidence that increasing use of mental health services would likely improve mental health outcomes for some correctional facility workers. There is a large body of evidence supporting the positive association between using health services for the early detection and treatment of mental health disorders¹⁶ and improved health outcomes. This does not indicate that all treatments are effective, but rather that evidence-based treatments are available. ^{16,17}

Psychological treatments for adults with PTSD are "designed to minimize the intrusion, avoidance, and hyperarousal symptoms of PTSD by some combination of re-experiencing and working through trauma-related memories and emotions and teaching better methods of managing trauma related stressors." ¹⁸ In its Clinical Practice Guideline for the Treatment of PTSD, the American Psychological Association (APA) has strongly recommended 4 interventions: cognitive behavioral therapy (CBT), cognitive processing therapy (CPT), cognitive therapy, and prolonged exposure (PE). 19 Recommendations were based on the strength of available evidence; treatment outcomes; the balance of benefits versus harms; burdens of interventions; patient values and preferences; and applicability of the evidence to various treatment populations. ¹⁹ APA also conditionally recommended 3 psychotherapies (i.e., brief eclectic psychotherapy, eye movement desensitization and reprocessing [EMDR] therapy, and narrative exposure therapy [NET]) and 4 medications. ¹⁹ Multiple systematic reviews ^{18,20,21} and meta-analyses 18,20 assessing psychological treatments have documented evidence supporting the efficacy of several treatments for improving outcomes for adults with PTSD. For example, one systematic review and meta-analysis found evidence supporting the efficacy of exposure therapy for improving PTSD symptoms, achieving loss of PTSD diagnosis, and improving depression symptoms for adults with PTSD. 18 Specifically, 66% more participants treated with exposure therapy than subjects in waitlist control groups achieved loss of PTSD diagnosis. ¹⁸ Moreover, researchers have stated, "trauma-focused psychotherapies have demonstrated effectiveness in reducing PTSD symptoms in a variety of populations and in relation to different types of trauma

exposure (e.g., combat, sexual assault, physical assault)."²¹ Evidence has also indicated treatments were effective at sustaining symptom improvements beyond treatment endpoint.²⁰

Additionally, studies consistently demonstrate the co-occurrence of PTSD with specified mental and behavioral health disorders. For example, PTSD is frequently associated with co-occurring psychiatric conditions, such as depression and substance use, which are also risk factors for suicidal ideation and behaviors. Evidence suggests about 80% of people with PTSD have one or more additional mental health diagnoses. Evidence has suggested an estimated 13% of people with PTSD also have a diagnosis of generalized anxiety disorder. ²³

Evidence has shown that people with co-occurring conditions can benefit from various treatment options. 17,21,24,25 For example, a systematic review examining co-occurring PTSD and suicidal thoughts and behaviors found that PTSD-specific treatments and those combining therapies for PTSD and suicide reduced both PTSD- and suicide-related outcomes.²¹ Meanwhile, suicidefocused treatments reduced suicide-related outcomes, but "the findings were mixed for their impact on PTSD-related outcomes."²¹ A systematic review of 24 behavioral randomized clinical trials for people with co-occurring alcohol/drug use and PTSD found that study participants in both experimental (e.g., trauma exposure and addiction coping skills training) and control conditions (e.g., 12-step facilitation sessions, supportive counseling) improved significantly over time on substance use disorder (SUD) and PTSD outcomes. ¹⁷ Findings suggest that "people with SUD/PTSD can benefit from a variety of treatment options, including standard SUD care."17 Additionally, findings of a systematic review of 9 randomized clinical trials evaluating the efficacy of pharmacologic treatment suggest that "[people] with alcohol use disorder (AUD) and comorbid PTSD can safely be prescribed medications used in non-comorbid populations and patients improve with treatment."²⁴ Another systematic review found evidence that people who experience comorbid physical or mental impairments seem to be at higher risk for persistent PTSD symptoms and should be identified early to prevent chronic PTSD.²⁵

There is also a growing body of literature that suggests PTSD, and potentially other stress disorders, is associated with physical health outcomes. ^{22,23,26} Evidence suggests that PTSD is associated with cardiovascular disease (CVD)^{23,26} and coronary heart disease. ²⁷ Within the general public, people diagnosed with PTSD have 3.4 times the odds of heart failure than those without a PTSD diagnosis. ²³ Correctional workers that screened positive for PTSD reported significantly higher rates of memory impairment, depression, sleep difficulties, digestive problems, heart disease, skin conditions, and obesity compared to correctional workers that screened negative for PTSD. ⁸

Researchers have noted that PSTD treatment for first responders is:

often challenging because in first responders the clinical presentation is often complicated by chronicity of the condition, comorbid psychiatric conditions, the ongoing stressors they may continue to face on their job, the difficulties in dealing with medical retirement or insurance issues, organizational demands, and distrust of mental health professionals.²⁸

Therefore, while there is strong evidence that increasing use of mental health services would likely improve mental health outcomes, we have downgraded the body of evidence to a fair amount of evidence for 3 reasons. First, research shows that correctional facility workers are exposed to multiple incidents (e.g., injured co-worker, badly beaten adult, seeing someone dying) on a repetitive basis, rather than isolated or one-time events. Decond, we did not identify

any literature that assessed PTSD treatments for correctional staff, and key informants stated there are no evidence-based PTSD treatment options specific to correctional staff (personal communication, DOC, March 2025). Third, there is a lack of mental health providers with expertise in treating patients working within the unique context of correctional facilities (personal communication, DOC, March 2025). Without that workplace cultural awareness, correctional staff may not feel safe engaging in treatment with providers (personal communication, DOC, March 2025).

Therefore, there is a fair amount of evidence that increasing use of mental health services would likely improve mental health outcomes for some correctional facility workers.

Would improved mental health outcomes decrease mental health inequities for some correctional facility workers?

There is strong evidence that improved mental health outcomes would likely decrease mental health inequities for some correctional facility workers. It is well established that correctional facility workers experience multiple mental health outcomes and at rates higher than other occupations and the general public.^{1,7-10}

Based on occupation, correctional facility workers experience increased risk of adverse physical and mental health outcomes, including increased risk of injury, heart disease, hypertension, high cholesterol, diabetes, metabolic disease, stress, and burnout,^{7,9} and high levels of psychological distress, anxiety, depression, PTSD, suicide ideation, death by suicide, and lower life expectancy.^{7-9,11}

The National Institute of Justice report included a review of literature examining correctional officers' perception of workplace safety issues, including exposure to infectious disease, risk of injury, and risk of victimization by people who are incarcerated or coworkers. Studies found that correctional officers perceived their risk of various safety-related issues to be high. One study found that 92.2% of officers believed they were at risk of contracting Hepatitis B or C. Another study found that between 57% and 73% of officers believed they were at risk of victimization by people who were incarcerated.

Two studies have specifically examined mental health outcomes among DOC staff. From 2016-2020, researchers from University of California, Irvine collaborated with DOC to examine experiences of staff working in Intensive Management Units (IMUs)^g. They found that 80% of DOC staff working on IMUs reported that stress impacted their health "some" or "a lot" in the past 12 months. Researchers found 3 primary reasons for high stress levels, including feeling overworked, undervalued, and hypervigilant. For example, 98% of staff agreed or strongly agreed that they "always have to keep in mind that trouble could happen any time. Improver, "although [DOC staff] felt safe working in the IMU, they overwhelmingly felt hypervigilant (often even unsafe) outside of prison, suggesting that their work *in* the IMU had health and social consequences *outside* of the IMU. To DOC staff working in IMUs previously stated that they feel on edge all the time and that interactions with people who are incarcerated can be unpredictable and violent (personal communication, DOC, July 2021). In discussions about SSB 5043, key

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^g An Intensive Management Unit (IMU) is an all-male unit or building where people are held in solitary confinement. Five DOC state prisons have separate intensive management units or buildings.

informants stated that many correctional facility workers feel hypervigilant at work in the prison and outside of the prison, regardless of the facility where they work or job classification (personal communications, February 2025). Chronic and pervasive levels of stress can negatively impact physical and mental health outcomes. Other research has also shown that "higher levels of stress were significant predictors of [3] variations of [corrections] officer burnout: depersonalization, emotional exhaustion, and job ineffectiveness." Moreover, "many studies have found safety and wellness risks within the correctional environment to significantly influence officers' desire to use administrative sick leave as well as their desire to resign." A study examining data from 2000 to 2008 found that 16.2% of correctional officers resigned after only 3 years on the job.

In the second study, researchers conducted a survey in the summer of 2013 with 355 DOC employees to evaluate the prevalence, risk factors, and protective factors of PTSD.⁷ Researchers found that 19% of DOC employees "met the criteria for diagnosable PTSD."⁷ They also found "a high rate of stress symptoms, even among prison workers who did not meet PTSD criteria."⁷ For example, 15% of DOC employees experienced bad dreams related to work events; 14% avoided memories or reminders of workplace traumas; and 10% experienced disturbing flashbacks.⁷ Notably, the researchers found that PTSD scores did not differ based on facility type, job classification, or percentage of time spent directly with people who are incarcerated, indicating that all correctional facility workers may experience PTSD.⁷

Public safety workers (including correctional facility workers) are employed in some of the most dangerous occupations. The National Institute of Justice stated that, "many scholars conclude that employment as a [correctional officer] is among the most dangerous and life threatening of all professions, including law enforcement." Correctional facility workers experience multiple mental health outcomes at levels higher than other occupations and the general public. For example, a 2011 study found that 31% of correctional officers reported serious psychological distress, which is twice the rate of the general public. A 2012 study found that 27% of correctional officers reported symptoms of PTSD, which is almost twice the rate of combat Veterans (14%). A 2013 survey found that PTSD-rates among DOC staff (19%) were 6 times higher than in the general public and "[p]rison employees have a PTSD rate equivalent to Iraq and Afghanistan war [V]eterans and higher than police officers." Research found that correctional officers experience death by suicide at twice the rate of the general public.⁹ Exposure to work-related injuries for correctional facility workers is 40 times the average for all employees. 10 Lastly, correctional officers also experience lower life expectancy; "the average lifespan of individuals in this line of work was 59 years, some 16 years below the national average of 75 [years]."9

Therefore, since correctional facility workers experience mental health conditions and at rates higher than other occupations and the general public, there is strong evidence that SSB 5043 may decrease inequities by occupation for correctional facility workers.

Annotated References

1. National Institute for Occupational Safety and Health (NIOSH) National Occupation Research Agenda, Public Safety Council National Occupational Research Agenda for Public Safety.2018.

In this report, the National Institute for Occupational Safety and Health (NIOSH), National Occupation Research Agenda, Public Safety Council recommended greater research to "identify the incidence and impact of violent encounters during daily interactions for correctional officers" as well as research to "identify, prevent, and treat mental or behavioral health problems before they evolve into PTSD, depression, alcoholism, or drug use for public safety sector employees" (including corrections staff).

2. PTSD and DSM-5. 2023; Available at:

https://www.ptsd.va.gov/professional/treat/essentials/dsm5 ptsd.asp. Accessed 3/3/2025. The U.S. Department of Veterans' Affairs, National Center for PTSD provides an overview PTSD criterion in the American Psychiatric Association *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*, including information about the updates included in *DSM-5-TR* in 2022.

3. Levin A. P., Kleinman S. B., Adler J. S.. DSM-5 and Posttraumatic Stress Disorder. *The Journal of the American Academy of Psychiatry and the Law.* 2014;42(1):46-58.

The American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders (DSM) is the handbook used by healthcare professionals in the United States as the authoritative guide to the diagnosis of mental disorders. The 5th Edition, DSM-5, includes a new chapter, "Trauma- and Stress-Related Disorders," which discusses PTSD, acute stress disorder (ASD), adjustment disorders (AD) separately from the anxiety disorders (e.g., panic disorder and social phobia). DSM-5 expands indirect exposures by adding A4: "repeated or extreme exposure to aversive details of the traumatic event(s)." Examples include first responders who collect human remains and police officers who are repeatedly exposed to details of child abuse. Authors note, the "Diagnostic Features" section provides no further explanation of A4. The "Prevalence" section "contains an oblique reference to A4, stating, 'Rates of PTSD are higher among veterans and others whose vocation increases the risk of traumatic exposure (e.g., police, firefighters, emergency personnel)[.]" While not clearly stated, the criterion suggests that "therapists and social service workers, as well as legal professionals, such as public defenders, prosecutors, and judges, who regularly encounter crime scene details of homicide and domestic violence, could develop PTSD." While compensation for mental-mental claims has been limited in some states to "sudden, unexpected exposure", researchers conclude that criterion A4 provides support for regarding cumulative work-related exposures to trauma as qualifying injuries. The authors note that, "DSM-5 is the first edition of the Manual to identify vocational responsibilities explicitly as potential qualifying traumatic experiences that could precipitate PTSD." They suggest that this could result in PTSD being recognized in workers compensation claims, and could raise questions about whether PTSD should be included under disability accommodations. The authors predict an increase in claims due to the expansion of qualifying events and potential impacts on disability and workplace accommodations.

- 4. Association American Psychiatric. Posttraumatic Stress Disorder. 2013.
- The American Psychiatric Association defines PTSD as a trauma- and stress-or-related disorder due to exposure to actual or threated death, serious injury, or sexual violation. APA defines exposure as a situation in which an individual "directly experiences the traumatic event, witnesses the traumatic event in person, learns that the tramatic event occured to a close family member or close friend, or experiences first-hand repeated or extreme exposure to aversive details of the traumatic event." Updates made to the APA's "Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition" (DSME-5) specifically state that repeated work-related trauma may result in PTSD, including the type of reoccuring trauma encountered by police officers and first responders.
- 5. State of Washington Board of Industrial Insurance Appeals. About BIIA. 2025; Available at: https://biia.wa.gov/AboutBIIA.html. Accessed, 2025.

This webpage provides an overview of the State of Washington Board of Industrial Insurance Appeals (BIIA). The BIIA is administered by 3 full-time Board members appointed by the Governor. It hears appeals from decisions made by L&I in several areas. The principle types of appeals are: industrial insurance (workers' compensation), safety citations under the Washington Industrial Safety and Health Act (WISHA), and Employer Premium (tax assessments and classifications).

- 6. Prison Facilities. 2021; Available at:
- https://www.doc.wa.gov/corrections/incarceration/prisons/default.htm. Accessed 4/15/2021. This webpage provides information about Washington State's prison facilities and the population incarcerated in DOC facilities.
- 7. James L., Todak N. Prison employment and post-traumatic stress disorder: Risk and protective factors. American Journal of Industrial Medicine. 2018;61:725-732. James and Todak surveyed 355 Washington State Department of Corrections (DOC) employees in the summer of 2013 to evaluate the prevalence, risk factors, and protective factors of posttraumatic stress disorder (PTSD). The majority of respondents (65%) were correctional officers. Other respondents were medical, counseling, and administrative staff. The authors used validated survey instruments to rate experience of PTSD symptoms, critical incidents, and work satisfaction. The authors stated, "[p]rison employment is a uniquely stressful occupation with regular and ongoing exposure to violence and threat of harm. Chronic exposure to these kinds of stressors represents a significant risk factor for mental illness." The authors also presented background information demonstrating that correctional officers report serious psychological distress at double the rate compared to the general population and higher rates of anxiety and depression compared to other occupations. The authors stated that PTSD amount correctional employees is less understood. The authors found that 19% of DOC employees "met the criteria for diagnosable PTSD" and "a high rate of stress symptoms, even among prison workers who did not meet PTSD criteria." Related to specific symptoms, 15% of DOC employees experienced bad dreams related to work events; 14% avoided memories or reminders of workplace traumas; and 10% experienced disturbing flashbacks. PTSD symptoms were higher among women than men; among Black employees than white and Hispanic employees; among day and evening shift employees than night shift employes; and among employees with more than 10 years of experience than those with less than 10 years of experience. PTSD scores did not differ based on

education level or age. PTSD scores also did not differ based on facility type, job classification, or percentage of time spent directly with people who are incarcerated, "indicating that interventions designed to reduce the prevalence of PTSD among prison employees should not focus solely on correction officers or higher security prisons." Risk factors for PTSD included exposure to critical incidents and higher ambiguity in job role. Overall, greater exposure to critical incidents of "being seriously injured" and "encountering an inmate recently sexually assaulted" were significantly associated with higher PTSD scores. Increased experience of "I am often placed in unnecessary danger" and "I am often unclear about what is expected of me" also significantly associated with higher PTSD scores. Together, these critical incidents an frustrations were identified as potential risk factors for PTSD. Protective factors included happiness with job assignments and positive relationships with supervisors and coworkers. Overall, the authors found that PTSD-rates among prison employees were 6 times higher than in the general population and "[p]rison employees have a PTSD rate equivalent to Iraq and Afghanistan war [V]eterans and higher than police officers, suggesting the importance of developing programs for promoting resilience to stress". The authors stated that, "the violet and chaotic nature of prison work has been shown to negatively impact prison employee physical health, mental health, sleep, personal life, and general wellness." For example, PTSD has been connected to a range of health risks, including cardiovascular and metabolic diseases. Previous research has found that "approximately a quarter of prison employees routinely experience serious threats to themselves or their families, almost half have witnessed coworkers being seriously injured by inmates, over a half have witnessed an inmate dying or encountered a recently dead inmate, and the vast majority have dealt with inmates who have been recently beaten and/or sexually assaulted." Lastly, the authors noted "it is critically important to target interventions specifically at reducing PTSD risk factors and promoting PTSD protective factors."

8. Fusco N., Ricciardelli R., Jamshidi L., et al. When Our Work Hits Home: Trauma and Mental Disorders in Correctional Officers and Other Correctional Workers. *Front Psychiatry*. 2020;11:493391.

Fusco et al. examined mental health outcomes for 1,308 correctional workers in Canadian federal prisons. Responses for 359 correctional officers (i.e., correctional, parole, and security intelligence officers) and 68 wellness service staff (i.e., nurses, psychologists, behavioral counselors, social workers, occupational therapists) were included in the analysis. The authors stated, "duties of correctional officers and wellness staff differ, but both work together in challenging environments with persons who have complex needs. The elevated rates of mental health symptoms amongst correctional officers, and healthcare professionals working in other settings, suggest that rates would also be elevated among healthcare professionals working within correctional settings." The authors hypothesized that correctional officers would experience higher rates of PTSD than prison wellness staff or other prison staff. Overall, the authors found that 32.6% of correctional officers and 17.2% of wellness staff screened positive for PTSD; both rates are higher than the rate for PTSD in the general population. Correctional officers and wellness staff also both reported higher rates of suicide ideation than the general population. For example, 40.3% of correctional officers and 32.2% of wellness staff reported experiencing suicidal thoughts. Although correctional officers were significantly more likely to screen positive for some outcomes (e.g., PTSD) than wellness staff, outcomes for wellness services staff were still significantly higher than the general population. A previous Canadian study showed that "the rates of some mental disorders (i.e., PTSD, generalized anxiety disorder,

panic disorder, social anxiety disorder) correlated positively with the number of exposures to different [potentially psychologically traumatic events] types." Moreover, based on a study in the U.S., correctional facility workers "reported experiencing an average of 28 events of violence, injury, or death, and being the victim of an average of two assaults throughout their careers. Such statistics often fail to include verbal and sexual harassment, which is disproportionately experienced by correctional staff." Previous research has also found that 27% of U.S. correctional workers experienced PTSD. Correctional workers that screened positive for PTSD had statistically significantly higher rates of memory impairment, depression, sleep difficulties, digestive problems, heart disease, skin conditions, and obesity compared to correctional workers that screened negative for PTSD.

9. Ferdik F.V., Smith H.P. Correctional Officer Safety and Wellness Literature Synthesis. National Institute of Justice; 2017.

This National Institute of Justice (NIJ) report summarizes a review of literature related to correctional officer safety and wellness. Correctional officers work in facilities "supervising the activities of inmates, enforcing rules and regulations, affording [individuals] access to social services, and perhaps most importantly, maintaining order." The report stated that, "many scholars conclude that employment as a [correctional officer] is among the most dangerous and life threatening of all professions, including law enforcement." NIJ noted that, "officers are required to interact with and supervise potentially dangerous [individuals] in relatively unsafe and secluded surroundings." Moreover, "prisons [are] dangerous environments that carry increased risk of harm to the people working in them." Correctional officers may experience multiple work-related dangers, including exposure to infections and communicable disease, prison gangs, disruptive inmates, contraband, riots, and working with individuals with mental health concerns. They experience increased risk of physical and mental health concerns, included increased risk of injury, heart disease, diabetes, high cholesterol, hypertension, stress, burnout, etc. A 2011 study found that 31% of correctional officers reported serious psychological distress, which is twice the rate of the general public. A 2012 study found that 27 percent of correctional officers reported symptoms of post traumatic stress disorder, which is almost twice the rate of combat Veterans (14%). Research has also found that correctional officers experience death by suicide at twice the rate of the general public. Correctional officers also experience lower life expectancy; "the average lifespan of individuals in this line of work was 59 years, some 16 years below the national average of 75." NIJ noted that previous research has found that "some officers are assigned to more dangerous units of the prison (e.g., administrative segregation), which can increase their risk of physical and mental health problems." In 2011, correctional officers "experienced 544 work-related injuries or illnesses that required absences from work per 10,000 full-time officers—the third highest rate of nonfatal workplace injuries...surpassed only by police officers and security guards." Studies have found that between 22% and 35% of correctional officers report high levels of stress. These negative health impacts "can have deleterious effects on the wider prison institution. Staff shortages and officer absences from work can create a cycle whereby low officer-to-inmate ratios and high turnover in officer staffing threaten the effective implementation of a correctional facility's security mandates." Correctional officers may also experience work/family conflict that further impacts psycho-social health. The NIJ report also included a review of literature related to correctional officer's perception of workplace safety. The review included 8 articles examining a range of safety-related issues, including exposure to infectious disease, risk of injury, and risk of victimization by individuals

who are incarcerated or coworkers. The studies found that correctional officers perceived their risk of various safety-related issues to be high. For example, one study found that 92.2 percent of officers believed they were at risk of contracting Hepatitis B or C. Another study found that between 57 and 73 percent of officers believed they were at risk of victimization by individuals who were incarcerated. Overall, researchers also found that "higher levels of stress were significant predictors of three variations of officer burnout: depersonalization, emotional exhaustion, and job ineffectiveness." Moreover, "many studies have found safety and wellness risks within the correctional environment to significantly influence officers' desire to use administrative sick leave as well as their desire to resign." A study examining data from 2000 to 2008 found that 16.2% of correctional officers resigned after only three years on the job, and "elevated rates of officer turnover and absenteeism can lead to higher inmate-to-officer ratios and greater numbers of inmate-on-inmate and inmate-on-staff assault."

10. Jaegers L. A., El Ghaziri M., Katz I. M., et al. Critical incident exposure among custody and noncustody correctional workers: Prevalence and impact of violent exposure to work-related trauma. *Am J Ind Med.* 2022;65(6):500-511.

Jaegers et al. examined the prevalence of exposure to critical incidents experienced by 105 employees at a reentry, community supervision facility that includes both custody and noncustody units. The researchers compared differences in exposure experienced by custody staff (i.e., correctional officers, community corrections probation and parole officers) and non-custody staff (i.e., administrative support staff, counselor, nursing staff). They also evaluated impacts of exposure to critical incidents on job satisfaction, PTSD, lower back disease, missed work, and sleep. Critical incidents are "trauma-inducing experiences where there is a threat to safety, wellbeing, or integrity, and exposure to these incidents may [cause] feelings of vulnerability, a perceived inability to maintain control, safety, or security, and distressing reactions such as fear and helplessness." The researchers noted that there are no national standards or common approaches to defining critical incidents or addressing critical incidents after they occur for correctional facility workers. Jaegers et al. used the Critical Incident History Questionnaire, which was designed to evaluate critical incident exposure among law enforcement officers, to examine the prevalence of exposure among correctional facility workers. Overall, they found that 59% of community prison employees were exposed to critical incidents. Of respondents, 35% reported seeing a coworker injured; 27% reported seeing someone dying; and 19% had their life threatened. Custody workers experienced greater exposure than non-custody workers; however, all staff experienced moderate to high prevalence of exposure to critical incidents. About 44% of community prison employees screened positive for PTSD, and employees exposed to critical incidents reported greater feelings of PTSD. The authors noted that this finding aligns with a body of research indicating that exposure to critical incidents and PTSD are strongly correlated.

11. Reiter K., Chesnut K., Gonzalez G., et al. Reducing Restrictive Housing Use in Washington State: Results from the 2016-2020 Study "Understanding and Replicating Washington State's Segregation Reduction Programs," Contract No. K11273.2021. Researchers from University of California, Irvine collaborated with DOC to determine how the agency reduced the use of restrictive housing. As part of this work, they used mixed methodology, including: 1) evaluating administrative data at six snapshot intervals between 2002 and 2017; 2) completing 315 paper surveys with individuals who are held in and DOC staff working in Intensive Management Units (IMUs); 3) conducting 186 interviews with a random

sample of individuals held in MAX Custody; and 4) conducting 77 interviews with a convenience sample of staff working in IMUs. They provided themes and main findings in five areas, including: research practices; use of restrictive housing use; conditions of restrictive housing; experiences of staff; and experiences of individuals who are incarcerated. The report also includes recommendations for further policy reform.

12. (OFM) Washington State Office of Financial Management. Multiple Agency Fiscal Note Summary: SB 5043 (PTSD/correctional workers). 2025.

A full Multiple Agency Fiscal Note was published February 12, 2025, for the original version of SB 5043. The fiscal note includes information from local governments as well as the Washington State Administrative Office of the Courts; Office of the Attorney General; Board of Industrial Insurance Appeals; Department of Labor and Industries; Department of Children, Youth, and Families; and Department of Corrections.

13. Workforce data. 2025; Available at: https://ofm.wa.gov/state-human-resources/workforce-data/workforce. Accessed 2/26/2025.

The Washington State Office of Financial Management (OFM) publishes data and statistics related to the Washington State governmental workforce, including information related to the Department of Corrections workforce and staffing. This webpage provides links to datasets related to workforce distribution by state agency and the number of employees and headcount trends.

14. Services Senate Committee. Senate Bill Report: SB 5043. 2025.

The Bill Report for SB 5043, Concerning industrial insurance coverage for posttraumatic stress disorders affecting correctional facility workers, provides background information relevant to the bill, a summary of bill provisions, and a summary of testimony provided during public hearing.

15. Skogstad M., Skorstad M., Lie A.. Work-related post-traumatic stress disorder. *Occupational Medicine*. 2013;63:173-182.

Authors conducted a systematic reveiw of available research on occupational groups that are at particular risk of developing work-related post-traumatic stress disorder (PTSD). Researchers identified 140 eligible articles that met the following criteria: 1) evaluated occupational-related PTSD, 2) study population consisted of non-military or 9/11 affected personnel, 3) workers experienced direct traumatic exposure, 4) highest scientific quality, and 5) published in peerreviewed journals. Findings indicate that occupational groups such as police officers, firefighters, and ambulance personnel are at increased risk of experiencing stressful events that make them more likely to suffer from PTSD, reported prevalence of <10%, ~20%, and ~20%, respectively. One systematic review analyzed found uniformed personnel to exhibit an unwillingness to seek help for psychological problems; authors state this may be related to a 'macho culture', which includes "denial and/or a constant pressure to control emotions and a desire to appear efficient." Authors conclude that "[m]ental health problems prior to the traumatic event and weak social support increase the risk of PTSD." Prevention of work-related PTSD includes "a sound organizational and psychosocial work environment, systematic training of employees, social support from colleagues and managers, and a proper follow-up of employees after a critical event."

16. American Psychological Association. Evidence-Based Practice in Psychology: APA Presidential Task Force on Evidence-Based Practice.2006.

The American Psychological Association (APA) created a policy indicating that the evidence-base for a psychological intervention should be evaluated using both efficacy and clinical utility as criteria. The Association President appointed the APA Presidential Task Force on Evidence-Based Practice and the task force published this document with the primary intent of describing psychology's commitment to evidence-based psychological practices. This document, though, also references many research articles providing evidence for the efficacy of a number of psychological treatments and interventions. The reference list for this document highlights the growing body of evidence of treatment efficacy from the 1970s through 2006. Note that this does not indicate that all treatments are effective, but rather than there is a very large body of evidence supporting that evidence-based treatments are available.

17. Simpson T. L., Lehavot K., Petrakis I. L. No Wrong Doors: Findings from a Critical Review of Behavioral Randomized Clinical Trials for Individuals with Co-Occurring Alcohol/Drug Problems and Posttraumatic Stress Disorder. *Alcoholism: Clinical and Experimental Research.* 2017;41(4):681-702.

This systematic review includes relevant behavioral randomized clinical trials (RCTs) that evaluated PTSD-oriented exposure-based treatments, addiction-focused treatments, and coping-based treatments that do not involve exposure to trauma memories. Researchers identified 24 behavioral RCTs: 7 exposure based, 6 addiction focused, and 11 coping based. Control conditions varied by study, but all participants received some type of care whether initiated on their own or accessed through the study (e.g., 12-step facilitation sessions, substance use disorder [SUD] treatment as usual, healthy lifestyle curriculum sessions, supportive counseling). The majority of studies found that participants in both the experimental and control conditions improved significantly over time on SUD and PTSD outcomes. None of the studies found "significant between-group differences in both SUD and PTSD outcomes favoring the experimental treatment." Findings indicate interventions that integrate exposure-based PTSD treatment and behavioral SUD treatment are associated with better PTSD outcomes than SUD care. Authors conclude that results suggest that people with SUD/PTSD can benefit from a variety of treatment options, including standard SUD care.

18. Cusack K., Jonas D. E., Forneris C. A., et al. Psychological treatments for adults with posttraumatic stress disorder: A systematic review and meta-analysis. *Clinical Psychology Review*. 2016;43:128-141.

Cusack et al. conducted a systematic review and meta-analysis to assess the efficacy, comparative effectiveness, and adverse effects of psychological treatments for adults with PTSD. Authors included 64 studies published from January 1, 1980, through May 20, 2014, which met inclusion criteria. Eligible psychological treatments included: brief eclectic psychotherapy; cognitive behavioral therapies (CBT) such as cognitive therapy (CT), including cognitive processing therapy (CPT), cognitive restructuring (CR), coping skills therapy (including stress inoculation therapy), and exposure therapy, including prolonged exposure; eye movement desensitization and reprocessing (EMDR); hypnotherapy; interpersonal therapy; psychodynamic therapy; and narrative exposure therapy (NET). Authors stated, "These therapies are designed to minimize the intrusion, avoidance, and hyperarousal symptoms of PTSD by some combination of re-experiencing and working through trauma-related memories and emotions and teaching

better methods of managing trauma related stressors." Investigators classified studies that met inclusion criteria, and "the classification scheme and categorization of each study was refined based on input by members of [the] technical expert panel, peer reviewers, and public reviewers." Included studies assessed at least one of the following outcomes: PTSD symptoms, remission (no longer having symptoms), loss of PTSD diagnosis, quality of life, disability or functional impairment, return to work or active duty, or adverse events. Researchers included 12 questions to assess selection bias, confounding, performance bias, detection bias, and attrition bias, and a low risk of bias rating required favorable responses to at least 10 questions. Studiew which received a high risk of bias ratings had a fatal flaw in one or more categories based on researchers' qualitative assessment, and the majority of studies that received a high risk of bias rating had numerous problems (average of 8 unfavorable responses to the 12 questions). Researchers considered 4 key domains (i.e., risk of bias, consistency, directness, and precision of the evidence) and graded the strength of evidence (SOE) as high, moderate, low, or insufficient. For each domain with an unfavorable assessment, researchers downgraded the SOE by at least one category. The 64 randomized controlled trials (RTCs) included had sample sizes ranging from 10 to 563 and study durations ranging from 4 weeks to 2 years. Sixty trials evaluated psychological treatments, 1 study compared psychological and pharmacological treatments, and 3 evaluated combinations of psychological and psychological treatments compared with either one alone. Overall, studies generally enrolled people with severe PTSD and with a mean age in the 30s-40s. Evidence showed several psychological treatments are effective for adults with PTSD. For example, researchers calculated the number of patients with PTSD who would need to be treated to achieve 1 good outcome (e.g., to achieve loss of PTSD diagnosis). Fewer than 4 patients would need to be treated to achieve loss of PTSD diagnosis for each of the following treatments: exposure therapy (2 patients), CPT (3), CT (2), CBT-mixed (4), and EMDR (2). Moderate evidence supports the efficacy of CT, including CPT, for improving PTSD symptoms, achieving loss of PTSD diagnosis, improving depression and anxiety symptoms, and reducing disability for adults with PTSD. Evidence for CT was insufficient for remission and for other outcomes. Evidence was insufficient to determine the efficacy of relaxation or stress inoculation training for adults with PTSD. Evidence supports the efficacy of exposure therapy for improving PTSD symptoms (high SOE), achieving loss of PTSD diagnosis (moderate SOE), and improving depression symptoms for adults with PTSD (high SOE). Evidence was insufficient for other outcomes (remission, anxiety, quality of life, disability or functional impairment, and return to work or active duty). Evidence supports the efficacy of CBT-mixed treatments for improving PTSD symptoms (moderate SOE). Evidence also supports the efficacy of CBT-mixed interventions for achieving loss of PTSD diagnosis, remission, and reduction of depression symptoms (all moderate SOE) as well as reduction of disability or functional impairment and anxiety symptoms (both low SOE). Evidence supports the efficacy of EMDR for reduction of PTSD symptoms, but SOE is low because of some inconsistency and imprecision. Evidence supports the efficacy of EMDR for achieving loss of PTSD diagnosis and improving depression symptoms (moderate SOE for both). Evidence supports the efficacy of NET for improving PTSD symptoms (moderate SOE) and for achieving loss of PTSD diagnosis (low SOE). Authors found evidence was insufficient to determine efficacy for achieving remission for all psychological treatments except for CBT-mixed treatments (moderate SOE), as CRTs typically did not report remission as an outcome. When comparing the effectiveness of treatments, authors found moderate SOE that exposure therapy was superior to relaxation for reducing PTSD symptoms and moderate SOE that exposure therapy and CT were similar in loss of PTSD diagnosis.

Additionally, there was moderate SOE that Seeking Safety is more effective than substance abuse treatment as usual for improving PTSD symptoms. Overall, evidence was insufficient to determine whether findings are applicable to all those with PTSD or whether they are only applicable to certain groups. For example, the evidence from subjects with combat-related trauma that contributed to assessments of the efficacious treatments was limited; therefore, its unknown whether or not findings are applicable to adults with PTSD from combat-related trauma. Authors noted limitations including the exclusion of 30 articles due to high risk of bias, of which many were excluded due to high attrition rates. Authors stated, "It is unknown to what extent the attrition rates were due to the underlying condition—given that some of the key features of PTSD are avoidance, loss of interest, and detachment—or to the treatments (e.g., adverse effects, worsening of symptoms)." Authors recommended future studies should collect information about adverse effects to better understand potential adverse effects of an intervention/treatment.

19. Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder (PTSD) in Adults. American Psychological Association 2017.

This American Psychological Association (APA) Guideline was developed to provide recommendations on psychological and pharmacological treatments for PTSD in adults. The Guideline Development Panel (Panel) was comprised of health professionals (i.e., from psychology, psychiatry, social work, and family medicine) and community members who selfidentified as having had PTSD. The Panel made recommendations based on: "1) strength of evidence; 2) treatment outcomes and the balance of benefits vs. harms and burdens of interventions; 3) patient values and preferences; and 4) applicability of the evidence to various treatment populations. PTSD symptom reduction and serious harms were selected by the [Panel] as critical outcomes for making recommendations." Specifically, the Panel strongly recommended the use of the following psychotherapies/interventions for adult patients with PTSD (listed in alphabetical order): cognitive behavioral therapy (CBT), cognitive processing therapy (CPT), cognitive therapy (CT), and prolonged exposure therapy (PE). The panel suggests the use of brief eclectic psychotherapy (BEP), eye movement desensitization and reprocessing (EMDR), and narrative exposure therapy (NET). A conditional recommendation indicates that an intervention "can lead to good treatment outcomes; however, the evidence may not be as strong, or the balance of treatment benefits and possible harms may be less favorable, or the intervention may be less applicable across treatment settings or subgroups of individuals with PTSD."

20. Mavranezouli I., Megnin-Viggars O., Daly C., et al. Psychological treatments for post-traumatic stress disorder in adults: a network meta-analysis. *Psychological Medicine*. 2020;50:542-555.

Mavranezouli et al. conducted a systematic review and network meta-analyses of psychological interventions for adults with PTSD. They evaluated PTSD symptom change scores post-treatment and at 1–4-month follow-up, and remission post-treatment to examine the relative effectiveness of treatments using network meta-analysis. Authors conducted their search of databases in January/February 2017 and again in January 2018. A total of 90 trials, with 6,560 participants and 22 interventions. In 64% of the included studies, the study population comprised adults with a diagnosis of PTSD; while in 36% of the included studies, the study population consisted of adults with clinically significant PTSD symptoms (i.e., based on baseline scores above a pre-defined threshold on a validated PTSD symptom scale). All evidence was assessed

for bias. Authors assessed the evidence as moderate- to low-quality. Researchers found eye movement desensitization and reprocessing (EMDR), combined somatic/cognitive therapies, trauma-focused (TF) cognitive behavior therapy (CBT), and self-help with support "appeared to be most effective at reducing PTSD symptoms post-treatment v. waitlist, followed by non-TF-CBT, TF-CBT combined with a selective serotonin reuptake inhibitor (SSRI), SSRIs, self-help without support and counseling." Additionally, evidence indicated "EMDR, TF-CBT, self-help with support and counseling improved remission rates post-treatment." Researchers were not able to focus on complex PTSD, which was less likely to be identified and managed effectively in routine practice; thus, they recommended research to identify appropriate interventions specific to populations with complex PTSD.

21. Rozek D. C., Baker S. N., Rugo K. F., et al. Addressing co-occurring suicidal thoughts and behaviors and posttraumatic stress disorder in evidence-based psychotherapies for adults: A systematic review. *Journal of Traumatic Stress.* 2022;35:729-745.

Rozek et al. conducted a systematic review examining the evidence of the impact of treatments specifically designed to treat PTSD or suicide on both PTSD- and suicide-related outcomes. PTSD is a well-established risk factor for suicidal thoughts and behaviors (e.g., suicidal ideation, attempts, and deaths, as well as suicide-related inpatient hospital admissions). Available evidence indicates that patients with more severe PTSD symptoms report more severe suicidal ideation and engage in more suicidal behaviors. Additionally, PTSD is frequently associated with co-occurring psychiatric conditions, such as depression and substance use, which are also risk factors for suicidal ideation and behaviors. While clinical guidelines for PTSD treatment have suggested that trauma-focused treatments can be used with people who are at elevated risk for suicide, guidelines do not define when a person with PTSD who is at heightened risk for suicide is "prepared" to engage in trauma-focused treatment or how to use these treatments in the context of heightened suicide risk. Therefore, some patients with PTSD who have suicidal thoughts and behaviors may receive delayed trauma-focused treatment, if PTSD treatment is ever initiated, as providers try to prepare or stabilize them. Authors cited a growing body of literature demonstrating that suicidal ideation and the beliefs associated with suicide risk improve over the course of PTSD treatment. Authors analyzed a total of 33 articles which met the full inclusion criteria including 23 examining PTS treatments, 4 examining suicide-focused treatments, and 6 examining combined treatments. Authors stated, "[d]ue to variability in the study designs, outcome measures, and populations, we did not employ a meta-analytic approach and instead used a descriptive synthesis approach," including sample characteristics, treatment type, supplemental components, comparison group(s), PTSD outcome measure(s), suicide outcome measure(s), and major findings. Authors assessed the quality of each study (strong: 10 studies; moderate: 17 studies; and weak: 6 studies). Evidence showed "PTSD and combined treatments reduced both PTSD- and suicide-related outcomes, with most studies focusing on cognitive processing therapy [CPT] [n = 11] or prolonged exposure [PE] [n = 9]." Authors stated that "all other PTSD treatments included in the review (EMDR, n = 4; PCT, n = 2; COPE, n = 2; NET, n = 1) showed positive impacts on PTSD symptoms and suicide-related outcomes; however, there were fewer studies that examined these treatments, suggesting the inherent need for additional research." Meanwhile suicide-focused treatments reduced suicide-related outcomes, but findings were mixed for their impact on PTSD-related outcomes. Authors noted limitations of the study and recommended further research to: 1) determine the effectiveness of EMDR, PCT, COPE, SS,

and NET treatments for people with co-occurring PTSD and suicidal thoughts and behaviors; 2) consider potential pharmacologic or other therapeutic interventions as confounders; 3) refine measurements of suicide risk (e.g., suicidal ideation and suicidal behavior); 4) assess effectiveness for underrepresented groups. Authors concluded that overall findings supported clinical guidelines which suggested utilizing PTSD treatments for people who have PTSD and are at risk for suicide.

22. U.S. Department of Veterans Affairs. PTSD: National Center for PTSD - Co-Occurring Conditions. 2025; Available at:

https://www.ptsd.va.gov/professional/treat/cooccurring/index.asp. Accessed 3/4/2025. This U.S. Department of Veterans Affairs webpage provides links to research explaining the connections among PTSD, trauma, and co-occurring mental and physical health problems. Research includes information on suicide, sleep, substance use, moral injury, neurocognitive problems (traumatic brain injury), anger and violence, and physical problems (e.g., pain).

23. Gradus Jaimie L. Prevalence and prognosis of stress disorders: a review of the epidemiologic literature. *Clinical Epidemiology*. 2017;2017(9):251-260.

This review summarizes the literature on stress disorders (International Classification of Diseases, 10th Edition) including acute stress reaction, PTSD, adjustment disorder, and unspecified stress reactions and the common psychiatric and somatic consequences of these disorders. Epidemiological literature consistently demonstrates the co-occurrence of PTSD and depression. Additionally, evidence suggests an estimated 13% of people with PTSD also have generalized anxiety disorder diagnoses. In the National Comorbidity Survey in the US, men with PTSD had 6.9 times the odds of having a major depressive episode (95% confidence interval [95% CI] = 4.4, 11) and had 5.9 times the odds of generalized anxiety disorder (95% CI = 2.6, 13) than men without PTSD. Women with PTSD had 4.1 times the odds of a major depressive episode (95% CI = 3.1, 5.4) and have 2.8 times the odds of generalized anxiety disorder (95% CI = 3.1, 5.4) than women without PTSD. Using cross-sectional data, the National Epidemiologic Survey on Alcohol and Related Conditions found that those with PTSD had 2.7 times the odds of major depression and 4.3 times the odds of having any anxiety disorder (95% CI = 3.8, 4.8) than those without PTSD. Substance abuse and dependence (alcohol and drug) is a third widely accepted comorbidity of stress disorders. In the National Comorbidity Survey, "men with PTSD had 2.1 times the odds of alcohol abuse or dependence (95% CI = 1.1, 3.7) and 2.9 times the odds of drug abuse and dependence (95% CI = 1.5, 5.8) than men without PTSD." Among women, "the odds of alcohol abuse and dependence for those with PTSD was 2.5 (95% CI = 1.8, 3.5) and the odds of drug abuse and dependence was 4.5 (95% CI = 3.1, 6.4) compared to those without PTSD." There is a strong base of evidence that PTSD is associated with cardiovascular disease (CVD), particularly among male U.S. veterans and in the general population. The association between CVD and other anxiety disorders is less well studied. Within the general population, people diagnosed with PTSD have 3.4 times the odds of heart failure than those without a PTSD diagnosis. There is conflicting evidence as to whether PTSD is associated with cancer and gastrointestinal (GI) disorders. The author concludes that stress disorders have potentially detrimental health outcomes for those living with these disorders.

24. Petrakis I. L., Simpson T. L. PTSD and Alcohol Use Disorder: A Critical Review of Pharmacologic Treatments. *Alcoholism: Clinical and Experimental Research*. 2017;41(2):226-237.

This systematic reivew identified 9 relevant randomized clinical trials (RTCs) that evaluated the efficacy of pharmacotherapy for individuals diagnosed with alcohol use disorder (AUD) and PTSD. Authors categorized studies as (1) those that evaluated first line treatments for PTSD [3 studies], (2) those that evaluated medications to target AUD [4 studies], and (3) those that evaluated medications hypothesized to be effective in targeting alcohol consumption as well as PTSD symptoms [3 studies]. One study was counted twice as it evaluated both a medication to treat PTSD and one to treat AUD. All but one study reviewed found that PTSD symptoms and drinking outcomes improved significantly over time. However, no one agent showed clear evidence of efficacy in this comorbid group. Authors note that conflicting results may be due in part to differences in study populations (gender distribution, military status) and other potential confoundings including severity and chronicity of illness, type of trauma experienced, other comorbid diagnoses, concomitant psychotripic medications, and whether additional resources were available (e.g., sober housing and robust addiction counseling services). However, findings suggest that "individuals with AUD and comorbid PTSD can safely be prescribed medications used in non-comorbid populations and patients improve with treatment."

25. Steinert C., Hofmann M., Leichsenring F., et al. The course of PTSD in naturalistic long-term studies: High variability of outcomes. A systematic review. *Nordic Journal of Psychiatry*. 2015;69(7):483-496.

This systematic review summarizes available findings on the prospective, naturalistic long-term course of PTSD and its predictors. Although PTSD is one of the most frequent mental disorders, with a lifetime prevalence of 8%, its lont-term course is largely unknown. Researchers note that "prospective studies investigating various samples of traumatized populations reported PTSD remission rates that ranged between 35% and 66% after 3-36 months." While these findings suggest that a considerable portion of individuals with PTSD recover over time, others experience chronic PTSD, lasting several eyars. Twenty-five studies were reviewed with a total of 24 cohorts of adult participants (n=10,500); 14 cohorts with observer-assessed PTSD at baseline and 10 with probable PTSD. Researchers found methodology and participant populations varied between studies. Those focusing on patient populations with observer assessed PTSD found that between 18% and 50% of patients experienced a stable recovery within 3-7 years. Findings suggest that individuals who lack social support as well as experience comorbid physical or mental impairments seem to be at elevated risk for non-remission and should be identified early to prevent chronic PTSD.

26. Hegg-Deloye S., Brassard P., Jauvin N., et al. Current state of knowledge of post-traumatic stress, sleeping problems, obesity and cardiovascular disease in paramedics. *Emerg Med J.* 2014;31(3):242-247.

Hegg-Deloye et al. completed a systematic review of 25 articles to examine the impact of work-related stress on the health of paramedics. Overall, they found that paramedics experience both acute and chronic stress indicators (including increased levels of cortisol and epinephrine), which increases their risk for cardiovascular disease. They also concluded that paramedics experience high rates of posttraumatic stress disorder, sleep disorders, and obesity. Based on studies included in the review, the authors found that the rate of PTSD among emergency workers may

be as high as 20%, compared to 5% in the general population. In addition, data show that more than 80% of people with PTSD report sleep difficulties, which may result in higher body mass index and increased risk of cardiovascular disease.

27. Player M. S., Peterson L. E. Anxiety Disorders, Hypertension, and Cardiovascular Risk: A Review. *International Journal of Psychiatry in Medicine*. 2011;41(4):365-377.

This review of evaluates available evidence of the associations between hypertension, coronary heart disease (CHD), and anxiety disorders and their contribution to morbidity to patients. Findings from several studies indicate an association between PTSD and CHD. Authors cite a study of randomly sampled male Vietnam veterans (n=4,328) free of heart disease at baseline. Of the 15-year follow-up period, those with PTSD had a 2.25 higher risk of heart disease mortality than those without PTSD. Similarly, a prospective cohort study of psychological factors in adults with cardiovascular disease (CVD) found patients with PTSD reported higher numbers of symptoms, physical limitations, and lower quality of life than those without PTSD. Authors also cite studies that indicate PTSD may have an important effect on diabetes and diabetes outcomes. Investigators conclude prospective cohort studies assessing the links between anxiety disorders and the development of CHD provide the strongest evidence for the association.

28. Bryant R. A. . 9 Challenges in Treating First Responders. *Treating PTSD in First Responders: A Guide for Serving Those Who Serve*: American Psychological Association; 2021:143-166.

In this book Dr. Richard Bryant provides an overview of the theoretical and empirical frameworks for understanding PTSD in first responders (e.g., police, firefighters, and paramedics), who experience higher rates of PTSD than the general population. Chapter 9 specifically discusses challenges in treating first responders.