

WORKERS' COMPENSATION BOARD OF NOVA SCOTIA

**ESTIMATED COST IMPACT OF PROPOSED CHANGES TO PSYCHOLOGICAL
INJURY POLICY**

August, 2013

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EXECUTIVE SUMMARY

The Board of Directors of the Workers' Compensation Board of Nova Scotia (the "Board") is currently reviewing its approach to adjudicating and compensating stress claims. Specifically, it is considering the introduction of a new "Psychological Injuries" policy that is applicable to workers of assessed and self-insured employers that are not covered under the Government Employee Compensation Act ("GECA"). In addition, it is proposing a revised "GECA – Psychological Injuries" policy applicable to workers of self-insured employers that are covered under the GECA.

The proposed "Psychological Injuries" policy expands the current interpretation of accident to include psychological injuries resulting from cumulative exposure to traumatic events. The current practice of the Board for non-GECA workers is to only compensate for psychological injury that is the result of an acute reaction to a traumatic event.

The proposed revisions to the "GECA – Psychological Injury" policy focus mainly on clarifying the definitions of traumatic event and gradual onset stress, and are not intended to significantly alter the types of stress claims that are currently compensable.

The Board has retained Morneau Shepell to estimate the financial impact of the proposed policy change. This report examines the potential impact of the policy change for assessed employers. It should be read as an approximate risk assessment of alternative scenarios.

A costing of this nature presents numerous unique challenges. First off, it is difficult to find relevant, credible data on which to base cost projections. Secondly, given the low frequency and complexity of claims filed to date, it is difficult to define precisely the Board's current practice in terms of the types of stress claims it accepts as compensable. The Board's current practice forms the reference point for measuring the increase in claims under the proposed policy. Finally, the actual interpretation and administration of the proposed policy could differ markedly from its original intentions with potentially significant cost effects. It is not possible to predict such things in advance. As a result, the precision of any analysis is limited and we would place a low, to moderate at best, confidence in the results.

We proceeded by examining the Board's potential experience under a number of scenarios derived from the experience of other jurisdictions. Based on our analysis we expect the proposed "Psychological Injuries" policy to increase the Board's new accident costs by up to \$0.02 per \$100 of assessable payroll annually. This is our best estimate of the financial impact of the policy, *if implemented and sustained over time as it is currently written*. However, there is a risk that appeal and legislative decisions may significantly expand the scope of the coverage beyond the original intent of the policy. In an extreme case, we estimate that a very broad interpretation and application of the policy could increase the Board's new accident costs by an amount in the order of \$0.40 per \$100 of assessable payroll per annum.

In our view, the primary risks associated with the proposed policy are twofold; subsequent legislative interpretations and appeal decisions expanding the scope of the coverage beyond what was thought to be the original intent, and incidence in Nova Scotia that is materially higher than elsewhere.

The risk of expanding coverage is primarily a legal or operational issue and is not necessarily driven by adopting a clear policy outlining what the legislation covers. Rather, legislative

interpretations and appeal decisions on the intent of the Act always present a risk, whether a specific policy exists or not.

The other primary risk, a significantly higher incidence of psychological injuries, has the potential to result in more claims filed than elsewhere even if the policy is strictly applied as it is currently written. Introduction of the proposed policy may trigger changes that result in a higher number of claims filed than experienced in the past or that otherwise would have been filed in absence of the policy. The latter point is a function of awareness rather than entitlement and therefore it is a risk that is present regardless of the policy. However, this risk could be more meaningful if the incidence for the new conditions covered under the policy is materially higher in Nova Scotia than in other jurisdictions that have adopted a similar change in the past.

Unfortunately, neither the incidence of psychological injury in Nova Scotia nor the potential impact of proposed policy on claiming patterns can be assessed accurately at this time. The high cost scenarios examined in this report are intended to give the Board an appreciation of these potential risks.

INTRODUCTION

The Board of Directors of the Workers' Compensation Board of Nova Scotia (the "Board") is currently considering the introduction of a new "Psychological Injuries" policy applicable to workers of assessed and self-insured employers that are not covered under the Government Employee Compensation Act ("GECA"). The proposed policy expands the current interpretation of accident to include psychological injuries resulting from cumulative exposure to traumatic events. In addition, the Board is proposing revisions to the "GECA – Psychological Injuries" policy applicable to workers of self-insured employers that are covered under the GECA. The proposed revisions mainly focus on clarifying the definitions used in the GECA policy.

The Board asked Morneau Shepell to estimate the potential cost impacts of the contemplated policy change. The purpose of this report is to present the results of our analysis under a range of plausible scenarios. It should be viewed as a risk assessment of the range of potential costs under the proposed policy.

Our report is organized as follows: Section 1 contains additional information on the Board's psychological injury policies along with a description of the costing performed; Section 2 describes the data used for the analysis; the method and assumptions used to estimate the financial impact of the policy is presented in Section 3; the results are presented in Section 4 and our conclusion remarks are presented in Section 5.

SECTION 1 – BACKGROUND

Our understanding of the proposed policies and a discussion of the costing challenges are presented below.

Understanding of the Policy

The Workers' Compensation Board of Nova Scotia (the "Board") currently uses two different approaches for adjudicating workplace stress depending on the legislation that applies to the worker. Workers covered by the Government of Canada under GECA have different adjudication criteria than workers covered under the Workers' Compensation Act, or the "Act", (i.e., workers of assessed employers and self-insurers other than the Government of Canada). The main difference between the two approaches is the type of psychological injuries that are eligible for compensation. Workers covered under GECA may be entitled to compensation for psychological injuries caused by a reaction to a traumatic event or by exposure to certain gradual onset stressors. Compensation to workers of non-GECA employers, on the other hand, is limited by the definition of accident in the Act to psychological injuries resulting from a reaction to a traumatic event only.

The Board is contemplating changes to its approach to adjudicating and compensating stress claims. Specifically, it is considering the introduction of a new "Psychological Injuries" policy that is applicable to workers of assessed and self-insured employers that are covered by the Act. In addition, it is proposing a revised "GECA – Psychological Injuries" policy applicable to workers of self-insured employers that are covered under the GECA. The full text of the proposed policies can be found in the background paper "*Compensability of Workplace Stress*" available on the Board's website. The substantive changes from the Board's current approach are discussed below for each policy.

The proposed "Psychological Injuries" policy expands the current interpretation of accident to include psychological injuries resulting from cumulative exposure to traumatic events. Currently, the practice of the Board for non-GECA workers is to only compensate for psychological injury that is the result of an acute reaction to a traumatic event.

The proposed revisions to the "GECA - Psychological Injuries" policy focuses on clarifying the definitions of traumatic event and gradual onset stress. For workers covered under GECA, the current practice is to compensate for psychological injuries resulting from acute or cumulative exposure to traumatic events, as well as from gradual onset stress. The proposed revisions are not intended to substantially change the types of stress claims that are currently compensable.

Both policies will continue to exclude stress claims associated with specified labour relations issues. As well, psychological injuries caused by a compensable physical injury are not covered by either policy but will continue to be compensable as per the Board's current practice.

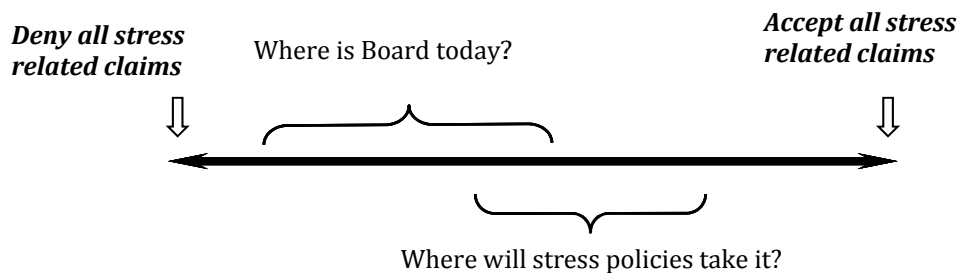
In short, aside from GECA's coverage of psychological injury resulting from gradual onset stress, the proposed policies establish the same entitlement criteria for all workers whether they are covered by the Act or GECA.

Costing Challenges

The Board has asked Morneau Shepell to estimate the financial impact of the proposed policy changes. We have focused on assessed employers for the purpose of this costing. Based on discussions with Board staff, an estimated financial impact is not required for self-insured employers covered under GECA because the proposed revisions are not expected to significantly alter the current practice for these employers. Further, estimates of the financial impact for non-GECA self-insured employers are not considered in this costing report due to data limitations. However, a simple illustrative estimate of the impact on non-GECA self-insured employers may be obtained by making appropriate adjustments to the results calculated for assessed employers.

The required calculation is to determine the changes that will occur in claiming patterns and the Board’s adjudication practices with respect to workplace stress relative to those currently experienced. In effect, we need to assess “Where is the Board today?” in the adjudication of workplace stress claims and “Where will the new policy take it?” after changes are introduced. The financial impact is then the difference in costs under the current approach and the proposed approach.

This is best illustrated using a line to show the continuum of potential workplace stress adjudication practice:



The continuum line shows extremes that could be associated with the workplace stress policy. At one extreme there is “deny all stress related claims” which is a very clear, measurable starting point with zero costs. At the other end there is “accept all stress related claims” which is somewhat more difficult to measure. A policy that is very liberal, or applied very liberally, would lead to higher costs and the possibility more claims being filed because of availability of benefits.

The first difficulty in the costing is to determine where the Board is today in terms of its compensation of workplace stress claims. This is not a straightforward question to answer. As part of the data supplied for this study, staff at the Board reviewed some historical stress claims filed by workers. Their review revealed that the application of the Board’s adjudication criteria varied from case to case. This is to be expected for these types of claims given that entitlement decisions are made by different case managers, in the absence of a policy, with each individual case presenting its unique set of circumstances and challenges.

For instance, staff at the Board noted some claims from workers of assessed employers that involved reactions to cumulative traumatic events that were deemed to meet the threshold of acute reaction to a traumatic event. Further, staff also found some instances of accepted claims that, based on the information extracted, did not appear to meet the entitlement criteria of either the Board’s current or proposed psychological injury policies but may have been accepted based

on multiplicity of conditions unique to the case at hand. Given the challenges noted above, it is difficult to determine the reference point from which we should measure expected changes that would arise with the implementation of the proposed policy.

The second variable, where will the proposed stress policies take the Board, is even more difficult to measure. The ultimate position along the continuum of claims adjudication for workplace stress will depend on how practices develop over time and how they are shaped by appeal and court decisions challenging practices of the Board in relation to the policy and requirements of the Act. In addition, the change in stress policy may lead to a change in claiming patterns and lead to an increase in claims filed. Neither of these factors can be easily predicted in advance. Furthermore, the risk of appeal and court decisions significantly expanding the scope of coverage may well exist even in the absence of a psychological injuries policy.

A third main difficulty with the costing is the lack of relevant, credible data on which to base estimates of financial impact. While many workers' compensation boards have implemented a workplace stress policy, detailed experience data is not readily available to determine the impact of the policy on the board's claim costs. Further, the value of data from other jurisdictions is somewhat limited given that it is highly dependent on that jurisdiction's adjudication practice which can vary greatly for psychological injuries.

In summary, we are in a position where a costing is needed, the reference starting point cannot be measured with precision and the ending point is dependent on numerous subjective evaluations which cannot be clearly defined nor fully assessed at this stage. There are two potential moving targets and the added cost is the difference between the two. In a situation like this, the range of results for potential added cost can be very broad. The best that can be achieved is a reasonable estimate of the range for potential costs to assist the Board of Directors in understanding and assessing the risk. However, we would place a low, to moderate at best, confidence in the results presented in this report.

SECTION 2 – DATA

Data from several different sources were used for this costing. They are broken down by category and described below.

Historical Stress Claim Details

The main data file is a listing of historical stress claims filed with the Board. This data was extracted by the Department of Business Intelligence and included workplace stress claims filed with the Board during accident years 2007 to 2012. The claims were identified by one of the following four methods:

1. Claims with a special case indicator of “STRS”
2. Claims with Nature of Injury (“NOI”) coding indicating stress (NOI codes beginning with 521)
3. Manual review of event descriptions and injury remarks fields from the Claim Detail screen for relevant key words
4. Manual review of Efile documents containing the word “stress” in the document name

The main data elements extracted for each claim are as follows:

- Claim number
- Firm number
- Employer name
- Accident year
- NOI code
- NOI description
- Claim status (i.e. approved, disallowed, no action)
- Event description
- Injury remarks
- Wage loss benefits paid
- Total benefits paid

We have no means of verifying the accuracy of this data. However, we were satisfied with the approach used to extract the data. The historical claim information provided is summarized in the tables below.

TABLE 2.1 –HISTORICAL STRESS CLAIMS – COUNTS*

| Accident Year | GECA | | Non-GECA Self Insured Employers | | Assessed | |
|-----------------|-------|----------|---------------------------------|----------|----------|----------|
| | Filed | Approved | Filed | Approved | Filed | Approved |
| 2007 | 46 | 17 | 7 | 1 | 111 | 32 |
| 2008 | 37 | 13 | 10 | 3 | 117 | 32 |
| 2009 | 44 | 11 | 9 | 1 | 101 | 25 |
| 2010 | 27 | 7 | 16 | 5 | 110 | 26 |
| 2011 | 25 | 14 | 14 | 4 | 78 | 27 |
| 2012 | 24 | 17 | 10 | 2 | 88 | 29 |
| Total | 203 | 79 | 66 | 16 | 605 | 171 |
| Acceptance rate | | 39% | | 24% | | 28% |

* Approved claims include claims that have \$0 of wage loss paid and are not marked as disallowed or no action. These records may be medical aid only claims or claims that were not accepted but have not been coded accurately.

TABLE 2.2 –HISTORICAL STRESS CLAIMS – PAYMENTS (\$)

| Accident Year | GECA | | Non-GECA Self Insurers | | Assessed | |
|---------------|-----------|-----------|------------------------|---------|-----------|-----------|
| | Wage Loss | Total | Wage Loss | Total | Wage Loss | Total |
| 2007 | 251,581 | 356,493 | - | 247 | 88,958 | 136,095 |
| 2008 | 145,689 | 195,986 | 114,864 | 184,757 | 336,168 | 748,325 |
| 2009 | 194,578 | 291,879 | 78,750 | 116,029 | 270,669 | 444,204 |
| 2010 | 179,157 | 203,712 | 168,067 | 214,989 | 345,137 | 623,200 |
| 2011 | 68,098 | 87,593 | 12,506 | 21,783 | 156,854 | 213,908 |
| 2012 | 52,123 | 58,843 | 2,753 | 3,558 | 127,873 | 195,916 |
| Total | 891,226 | 1,194,506 | 376,940 | 541,363 | 1,325,658 | 2,361,647 |

Claim Severity Details

Staff at the Board also supplied a file containing counts and total benefit payments by severity category for all registered claims. This data was provided for accident years 2003 to 2012, and is summarized in the Appendix.

Data from Other Jurisdictions

The number of lost time stress claims accepted by workers' compensation boards in Canada was provided for accident years 2007 to 2011 inclusive. This data was obtained by the Board from the Association of Workers' Compensation Boards of Canada ("AWCBC"). The extract included compensable lost time claims for all employer types (i.e. self-insured and assessed) with the following stress-related NOI codes:

- 52000 - Mental disorder or syndrome, uns.
- 52100 - Anxiety, stress, neurotic disorders, uns.
- 52110 - Post-traumatic stress
- 52130 - Panic disorder
- 52190 - Anxiety, stress, neurotic disorders, n.e.c.
- 52191 - Depressive state
- 52192 - Burn out
- 52193 - Adjustment disorder
- 52194 - Psychological decompensation
- 52210 - Substance-induced mental disorder
- 52900 - Mental disorders or syndromes, n.e.c.

This data is summarized in the Appendix. When interpreting the data it is important to keep in mind that coding practices differ between organizations. In addition, there are likely some workplace stress claims that are not coded to these categories. To assess the usefulness of this data, we compared the number of claims reported to independent data sources provided by staff at the Board for three jurisdictions (British Columbia, Saskatchewan, and Nova Scotia). We found that the number of claims in the AWCBC extract is about 85% of the actual stress claim counts for these jurisdictions in the periods examined. While not perfect, the AWCBC data does provide a useful indication of the volume of accepted lost time claims due to workplace stress in jurisdictions across Canada.

In addition to the stress claim data, we were provided with a copy of a jurisdictional review of workplace stress policies at workers' compensation boards in Canada. This review was conducted by staff at the Board as part of their policy development work. While each jurisdiction's definition of compensable stress varies, the types of workplace stress claims that are eligible for compensation generally fall into one of three categories:

1. Acute reactions to a traumatic event – "Acute Traumatic"
2. Reaction to cumulative traumatic events over time – "Cumulative Traumatic"
3. Chronic or gradual onset stress – "Gradual Onset"

The following table summarizes the results of the jurisdictional review using the categories defined above.

TABLE 2.3 – TYPES OF COMPENSABLE STRESS

| Category | Jurisdiction |
|--|----------------------|
| Acute Traumatic Only | NB, NL, NS, BC*, MB* |
| Acute Traumatic and Cumulative Traumatic | NT/NU, PE, ON, YT |
| Acute Traumatic, Cumulative Traumatic, and Gradual Onset | AB, QC, SK |

** The policies of MB and BC were updated in 2012. Their categorization in Table 2.3 reflects their approach to workplace stress prior to their recent policy revisions as historical claims data would reflect the previous policy.*

Finally, we obtained data on certain key statistical measures (“KSM”) that is available to the public from the AWCBC. In particular, we obtained data on KSM 2.1 (assessable lost time claims) and KSM 21 (injury frequency) for all jurisdictions.

Miscellaneous Information

Other miscellaneous data and information used in the costing includes:

- A copy of the Board’s 2012 valuation report provided by Board staff.
- Copies of the Board’s past Annual Reports obtained from their website.
- Various studies on stress, its health effects and financial impacts. Unfortunately, many of the studies are not directly applicable to the costing. Stress can result from a variety of factors, one of which is the workplace. The majority of studies available do not focus on the types of workplace stress noted in Table 2.3. However, there are some studies available that illustrate the potentially high costs of psychological injuries. Data from these studies is cited when used in this costing report.
- Experience data and projections from WorkSafe BC. WorkSafe BC recently revised its psychological injuries policy (July 1, 2012) and switched from only compensating for acute reactions to traumatic events, to compensating for reactions to one or more traumatic events or gradual onset stress. Data supplied to the Board by WorkSafe BC showed approximately a 220% increase in stress claims registered in the first eight months following the policy change. In addition, projections provided by the actuarial department of WorkSafe BC suggest an increase of about 30% in the number of stress claims accepted under the revised policy.

SECTION 3 – METHODS AND ASSUMPTIONS

The approach used to estimate the financial impact of the “Psychological Injuries” policy consisted of two main steps: estimating the increase in claims under the new policy (incidence) and estimating the average cost of the new claims accepted under the policy (severity). These steps are discussed below.

Incidence

A number of methods were used to estimate the potential increase in the number stress claims compensated under the new policy. The first approach involved using the AWCBC stress claim data to compare experience for jurisdictions with different adjudication policies to that of the Board. Specifically, the stress claim data for each jurisdiction and accident year summarized in the Appendix was combined with the jurisdiction’s corresponding injury frequency and number of lost time claims to obtain an estimate of its lost time (“LT”) stress claim incidence using formula (1) below.

$$(1) \text{ LT stress claim incidence} = (\text{LT stress claims} / \text{All LT claims}) \times \text{Injury frequency}$$

Application of formula (1) to assessed employers involves a couple of implicit assumptions. Firstly, AWCBC lost time stress data includes claims for all employers, not just assessed, so the bracketed term in (1) is an approximation. That being said, we would not expect the lost time stress claims as a percentage of total lost time claims to vary much when measured for all employers versus only assessed employers because assessed employers comprise a large proportion of the employer total in most jurisdictions. Further, as discussed below, results in formula (1) will be used to compare incidences across jurisdictions with different stress policies. Since we are interested in relative comparisons, the impact of any approximation this is applied consistently across jurisdictions is limited. The second assumption implicit in formula (1) is that exposure to stress is uniform across jurisdictions so that any difference in stress incidences can be attributed to differences in the entitlement policies of the jurisdiction. Given the ubiquitous nature of stress and lack of readily available data to suggest otherwise, this does not appear to be an unreasonable initial assumption. However, if the incidence of psychological injury in Nova Scotia for the cases that fit under the new interpretation of accident but not the old interpretation is materially greater than the same incidence in other jurisdictions, the proposed policy may result in a higher number of claims filed, all else equal.

Next, the results for jurisdictions were grouped according to the types of stress that is considered compensable as categorized in Table 2.3 and an average claim incidence was determined for each category. To obtain an estimate of the increase in claim incidence resulting from the new policy, the average for the Board was compared to the results for jurisdictions with more liberal entitlement criteria. Specifically, the estimated lost time stress incidence for the Board was compared to the average for jurisdictions that compensate for acute and cumulative traumatic stress, and to those that compensate for acute traumatic, cumulative traumatic and gradual onset stress (the comparator groups correspond to the last two rows in Table 2.3). The results of these calculations are presented below.

TABLE 3.1 – ESTIMATED LOST TIME STRESS CLAIM INCIDENCES

| Category | Calculated Incidence | Increase compared to NS |
|--|----------------------|-------------------------|
| Nova Scotia | 0.72% | n/a |
| Acute Traumatic and Cumulative Traumatic | 0.91% | 27% |
| Acute Traumatic, Cumulative Traumatic, and Gradual Onset | 2.12% | 196% |

While the proposed “Psychological Injuries” policy only compensates for workplace stress that is a reaction to one or more traumatic events (i.e. acute traumatic and cumulative traumatic) we have also calculated the potential increase assuming experience follows those jurisdictions that also accept gradual onset stress claims. The line between stress resulting from cumulative exposure to traumatic events and that arising from chronic exposure to significant stressors may be blurred and we felt it was prudent to examine both scenarios. For the purpose of this costing we have assumed increases of 30% and 200% in lost time stress claims based on this analysis.

In addition, the recent changes made to the psychological injury policy at WorkSafe BC (effective July 1, 2012) provide an indication of the potential response to the Board’s proposed policy. As noted earlier, preliminary data following the policy change at WorkSafe BC suggest an increase of around 220% in the number of psychological injury claims registered, and an increase of about 30% in claims accepted. While the new policy at WorkSafe BC provides coverage for more triggering conditions than the policy proposed by the Board (i.e. the policy at WorkSafe BC compensates for certain types of gradual onset stress, as well as acute and cumulative reactions to traumatic events) and the volume experience is limited, we still feel it is useful for illustrating the range of possibilities for the Board.

Finally, numerous studies of the experience of other workers’ compensation organizations, as well as the economy as a whole, provide examples of potential high cost scenarios. These tests can be used to provide the Board with a sense of the potential risks of the new psychological injury policy should the entitlement and adjudication criteria change from their original intention. The most relevant studies are discussed below:

- California – Psychological injuries accounted for 9% of all new workers compensation claims in California in 1990¹. This increase in psychological claims was largely attributed to the adoption of a very broad definition of compensable stress. The California State Supreme Court ruled in 1986 that workplace causation need only be “more than infinitesimal or inconsequential” for a mental stress claim to be compensable². However, by 1994 experience had moderated and psychological stress claims accounted for fewer than 4% of all claims accepted.

1 – Elisburg D (1994), Workplace Stress: Legal Developments, Economic Pressures, and Violence. John Burton’s Workers’ Compensation Monitor, 6:12-19

2 – California Workers’ Compensation Institute (1990): Mental Stress Claims in California Workers’ Compensation – Incidence, Costs and Trends. CWCI Research Notes

- Comcare – Comcare is an agency of the Australian government that works to implement the Government’s policies to improve the health and safety of federal workplaces. Between 2006 and 2011 psychological injury claims made up between 10% and 13% of total claims for Comcare’s premium paying workplaces³.
- Statistics Canada – According to the General Social Survey conducted by Statistics Canada in 2010, 27% of employed people aged 20 to 64 reported their lives are “quite” or “extremely” stressful. Furthermore, 62% of these highly stressed people identified work as their main source of stress⁴. Taken together, these statistics suggest that roughly 16.7% (27% x 62%) of the employed population is highly stressed due to their work.

Severity

To estimate the average cost of claims we developed a distribution of claim costs by severity category. To begin, staff at the Board provided us with counts of claims and benefits paid to date for accident years 2003 to 2012, broken down by the following severity categories:

- Not approved / disallowed
- Approved, no lost time
- Time loss, up to 2 weeks
- Time loss, 2 to 5 weeks
- Time loss, 5 to 26 weeks
- Time loss, 26 to 52 weeks
- Time loss, more than 52 weeks

This data is summarized in the Appendix. Using the total costs and counts, we calculated the average cost per claim for each severity category. Of course, it is possible that claims belonging to one severity category may transition to more severe categories over time. This potential is particularly acute for recent accidents where a greater proportion of claims are not yet mature. In order to estimate the cost of additional stress claims, we need the average cost by severity category for mature or completed claims. We estimated these figures using the following process:

1. We only focused on accident years 2010 and prior to ensure that the cost data is reasonably mature
2. We assumed that the costs for all severity categories up to 26 weeks of time loss are complete. We assumed that costs for the 26 to 52 weeks of time loss category are complete after 5 years (i.e. complete for accident years 2007 and prior). Finally, we assumed that costs for the 52+ week time loss category are complete after 8 years (i.e. complete for accident years 2004 and prior).
3. Average costs for severity categories in non-complete accident years were grossed-up by development factors calculated from completed accident years. For instance, the completed costs for the 26 to 52 week time loss category for the 2010 accident year are estimated by multiplying the payments in the 2 to 5 and 5 to 26 weeks lost categories (which are assumed complete) by appropriate development factors. These development factors are derived from the ratio of the 26 to 52 week lost category to the 2 to 5 weeks lost and 5 to 26 weeks lost categories for completed accident years.

3 -http://www.comcare.gov.au/safety_and_prevention/health_and_safety_topics/psychological_injury-13/costs_of_psychological_injury

4 – Statistics Canada, General Social Survey, 2010

4. We also used claim count data from completed categories to estimate the distribution of claims by severity category.
5. The average costs calculated in step 3 for the 2010 accident year were then inflated to 2012 and adjusted so that they are consistent with the 2012 new accident cost from the Board's valuation report (i.e. the assumed average costs by severity category multiplied by the assumed distribution of claims by severity category matches the 2012 new accident costs).

The assumed severity distribution (including future administrative expense) can be found in Table 3.2 below.

TABLE 3.2 – ASSUMED SEVERITY DISTRIBUTION

| Category | Distributions (% of claims) | | | Average Cost (\$) |
|-------------------------------|-----------------------------|-----------------|------------------|-------------------|
| | All Claims | Accepted Claims | Lost time Claims | |
| Not approved / Disallowed | 17.2% | | | 70 |
| Approved, no lost time | 54.9% | 66.3% | | 600 |
| Time loss, up to 2 weeks | 11.5% | 13.8% | 41.1% | 1,200 |
| Time loss, 2 to 5 weeks | 4.9% | 6.0% | 17.7% | 3,400 |
| Time loss, 5 to 26 weeks | 8.1% | 9.8% | 29.2% | 11,700 |
| Time loss, 26 to 52 weeks | 1.3% | 1.5% | 4.5% | 52,900 |
| Time loss, more than 52 weeks | 2.1% | 2.6% | 7.6% | 235,800 |

Using the results in Table 3.2 directly to estimate the cost of psychological injury claims assumes that these claims are similar in cost to the average claim accepted by the Board. However, there is evidence that these claims can be more costly in general:

- A study performed by the National Council of Compensation Insurance in the United States found that charges for compensated medical injury claims were on average 52% higher than physical injury. It also found that these claims tend to last longer – an average of 39 weeks compared to 24 weeks for the average physical injury⁵.
- Another study found that psychological injury can have a high rate of recurrence. In particular, employees with a previous disability claim that is related to mental illness were found to be almost seven times more likely to have another disability claim related to that illness than those with no previous disability related to mental illness⁶.

5 –Elisberg, D (1994): supra

6 – Dewa, C.S., Chau, N., & Dermer, S. (2009). Factors associated with short-term disability episodes, Journal of occupational and environmental medicine, 51, 1394-1402

In order to estimate the difference in costs between the average stress claim and the average claim, we compared the average cost for historical stress claims accepted by the Board to the average costs per claim calculated for all claims. In the historical stress claim data provided by the Board, claims that had \$0 of wage loss paid and were not marked as disallowed or no action were recorded as approved. These claims may be medical aid only claims or may be that were never accepted and were not recorded accurately. Any such claims with total payments less than \$250 are assumed to have not been accepted for the purpose of this analysis. The results are shown in Table 3.3 below.

TABLE 3.3 – COST OF STRESS CLAIMS VS. ALL CLAIMS

| Accident Year | Average Claim (\$) | Average Stress Claim (\$) | Ratio |
|----------------------|---------------------------|----------------------------------|--------------|
| 2007 | 11,775 | 5,566 | 47% |
| 2008 | 10,731 | 32,165 | 300% |
| 2009 | 9,848 | 23,183 | 235% |
| 2010 | 8,958 | 25,750 | 287% |
| 2011 | 7,190 | 12,396 | 172% |
| 2012 | 3,994 | 14,881 | 373% |
| Total | 9,066 | 19,467 | 215% |

The results in Table 3.3 support the notion found in the literature that stress claims are generally more costly than regular claims. To account for this, we have applied a 200% gross up to the assumed costs in Table 3.2 for the purpose of this costing.

Estimated Cost

The estimated financial impact of the proposed psychological injury policy is calculated by multiplying the expected number of additional stress claims under the new policy by the appropriate average cost per claim. The number of additional stress claims is determined by multiplying the incidence adjustment factor for the scenario by the appropriate cost base for the scenario and subtracting the Board’s average volume of stress claims (treating zero wage loss, low cost claims as not accepted, as discussed above). The estimated average cost per claim is based on Table 3.2. Finally, the estimated rate impact is determined by dividing the estimated cost by the Board’s assessable payroll (\$9.5 billion for 2012) and multiplying by 100. The details and results of these calculations are presented in Section 4.

SECTION 4 – RESULTS

The results of our calculations for the various scenarios are presented below. Please note that these results are applicable to assessed employers.

TABLE 4.1 – INCREASE IN CLAIMS

| Scenario | Base | Base Value | Incidence Factor | Annual Stress Claims | | |
|-------------------------------------|-----------------|------------|------------------|----------------------|-----------------|------------|
| | | | | Projected Total | Current Average | Additional |
| 1. AWCBC – Acute/ Cumulative | LT* Claims | 18 | 130% | 23 | 18 | 5 |
| 2. AWCBC – Gradual Onset | LT Claims | 18 | 300% | 54 | 18 | 36 |
| 3. BC – LT Claims | LT Claims | 18 | 130% | 23 | 18 | 5 |
| 4. BC – Registered Claims | Filed Claims | 101 | 220% | 222 | 101 | 121 |
| 5. Comcare - Low | All LT Claims | 5,704 | 10% | 570 | 18 | 552 |
| 6. Comcare - High | All LT Claims | 5,704 | 13% | 742 | 18 | 724 |
| 7. California - Low | All LT Claims | 5,704 | 4% | 228 | 18 | 210 |
| 8. California - High | All LT Claims | 5,704 | 9% | 513 | 18 | 495 |
| 9. Stats Canada (illustration only) | Covered Workers | 284,000 | 0.17%** | 483 | 101 | 382 |

* LT stands for “Lost time”

** Assumes that 1 out of every 100 possible cases from Statistics Canada data files a psychological injury claim with the Board. This scenario is illustrative as there is no data source available to estimate how many stressed workers would file a claim and be accepted under the Act.

The base value in Table 4.1 refers to the variable to which the incidence adjustment factor is applied to project total stress claims under the new policy. In scenarios 1, 2, and 3 this is lost-time stress claims; in scenario 4 it is filed stress claims; in scenarios 5 through 9 it is all lost-time claims (stress and non-stress); and in scenario 9 it is covered workers. The base values used in scenarios 1 through 4 are based on the Board’s average experience during the 2007 to 2012 period. Using historical averages provides a more stable, realistic estimate of the Board’s typical experience given the considerable year-over-year variation in its stress claims volume. In scenarios 5 through 9, it is based on the Board’s 2012 experience. For each scenario, the base value multiplied by the incidence factor gives the projected total stress claims (either lost time or

filed, as the scenario dictates) under the proposed policy. Subtracting the Board’s current average experience gives a measure of the expected increase in annual claims due to the policy. Claims figures in the table have been rounded to the nearest whole number of claims.

In Table 4.2 below, we present the estimate cost of scenarios 1 through 4, which correspond to our best estimate of the financial impact of the proposed “Psychological Injuries” policy if implemented as it is currently written and if the incidence of covered conditions in Nova Scotia are of the same order of magnitude as in other jurisdictions.

TABLE 4.2 – ANNUAL COST IMPACT – BEST ESTIMATE SCENARIOS

| Scenario | Additional Claims* | Average Cost (\$) | Multiplier for Stress | Projected Total Cost (\$) | Rate Impact (\$) |
|----------|--------------------|-------------------|-----------------------|---------------------------|------------------|
| 1 | 5 | 24,657 | 200% | 246,600 | less than 0.01 |
| 2 | 36 | 24,657 | 200% | 1,775,300 | 0.02 |
| 3 | 5 | 24,657 | 200% | 246,600 | less than 0.01 |
| 4 | 121 | 7,233 | 200% | 1,750,400 | 0.02 |

* From Table 4.1

The average cost used in Table 4.2 is based on the corresponding figures derived in Table 3.2. For instance, scenario 4 projects the increase in filed stress claims under the policy and so the average cost for all filed claims (\$7,233) is used. All other scenarios project the increase in accepted lost time stress claims so the average cost for lost time claims (\$24,657) is used. The rate impact is rounded to the nearest cent per \$100 of assessable payroll.

Scenarios 1 and 2 are based on the jurisdictional analysis conducted using AWCBC data. Scenario 1 corresponds to observed stress claim incidence for jurisdictions that accept claims for both acute and cumulative reactions to traumatic events, while scenario 2 corresponds to those Boards that also accept gradual onset stress claims. These scenarios assume that the Board’s adjudication criteria and claim experience is similar to other jurisdictions in Canada.

Scenarios 3 and 4 are based on initial observations for WorkSafe BC following the implementation of their revised psychological injury policy in July of 2012. While the WorkSafe BC data is relevant, its reliability is limited given the short time period since the policy change. Scenario 3 assumes that the Board experiences an increase in compensable lost time stress claims similar to WorkSafe BC. Scenario 4 assumes an increase in registered stress claims consistent with WorkSafe BC’s experience and that claims are accepted following the Board’s general distribution for all claims given in Table 3.2.

Together, scenarios 1 through 4 imply an increase in new accident costs of up to \$0.02 per \$100 of assessable payroll. As stated earlier, this represents our best estimate of the financial impact of the proposed “Psychological Injuries” policy. It assumes that the policy is implemented and adjudicated in accordance with its original intent over the long term, and that the incidence of covered conditions in Nova Scotia is similar to other jurisdictions.

Scenarios 5 through 9 are tests that use the actual experience of other jurisdictions to illustrate the potential high end of the range of possible results. The results for these potential high cost scenarios are presented in Table 4.3. These high costs may occur as the result of a very broad application of the policy to a wide range of conditions that could be deemed to be work-related using a reasonable inference or similar lenient adjudication criteria. Alternatively, high costs may occur from appeal or legislative decisions that result in the application of a broader definition of compensable stress claims than contemplated by the original policy. Lastly, a materially higher incidence of psychological injury in Nova Scotia than elsewhere could also push the costs towards the higher end.

It is worth noting, however, that the risk of legislative interpretations and appeal decisions expanding the scope of coverage under the Act is always present and is not necessarily amplified by the introduction of a policy outlining the criteria for entitlement. Clearly defining in policy the conditions intended to be covered by the Act and the applicable adjudication criteria may assist in focusing the interpretation and application to the original intentions and, in that regard, mitigate the potential risks that may be inferred by the introduction of the policy.

Furthermore the proposed policy defines conditions that are already recognized as compensable in other jurisdictions in Canada. As such, it does not introduce anything that has not been covered elsewhere and relates to conditions for which there exists preliminary experience results, albeit limited in scope. Instead, what may result in higher costs for the Board than elsewhere is a higher incidence for those psychological injuries covered under the expanded interpretation of the proposed policy. In addition, changes in claiming patterns in response to the policy or other influences may also result in more claims being filed. Neither of these factors can be assessed in a precise quantitative fashion at this time.

TABLE 4.3 – ANNUAL COST IMPACT – HIGH COST SCENARIOS

| Scenario | Additional Claims* | Average Cost (\$) | Multiplier for Stress | Projected Total Cost (\$) | Rate Impact (\$) |
|----------|--------------------|-------------------|-----------------------|---------------------------|------------------|
| 5 | 552 | 24,657 | 200% | 27,221,300 | 0.29 |
| 6 | 724 | 24,657 | 200% | 35,703,300 | 0.38 |
| 7 | 210 | 24,657 | 200% | 10,355,900 | 0.11 |
| 8 | 495 | 24,657 | 200% | 24,410,400 | 0.26 |
| 9 | 382 | 7,233 | 200% | 5,526,000 | 0.06 |

* From Table 4.1

Once again, the average cost used in Table 4.3 is based on the corresponding figures derived in Table 3.2. For instance, scenario 9 projects the increase in filed stress claims under the policy and so the average cost for all filed claims (\$7,233) is used. All other scenarios project the increase in accepted lost time stress claims so the average cost for lost time claims (\$24,657) is used. The rate impact is rounded to the nearest cent per \$100 of assessable payroll.

Scenario 5 and 6 are based on the experience of Comcare, the agency responsible for providing workplace safety and compensation services to employees of the federal government in Australia. In the past, lost time psychological injury claims represented between 10% and 13%

of Comcare's total lost time claims. Similarly, scenarios 7 and 8 use workers' compensation experience from the state of California, where lost time stress claims ranged between 4% and 9% of all lost time claims, to project cost impacts for the Board. These scenarios imply a potential increase in the Board's new accident costs of between \$0.11 and \$0.38 per \$100 of assessable payroll annually. While the adjudication and entitlement criteria used in these jurisdictions is certainly different from that proposed in the "Psychological Injuries" policy, their experience is still valuable for assessing the potential cost of a very liberal application of the policy.

Finally, scenario 9 attempts to provide the Board with an estimate of their potential exposure to the filing of stress claims by the covered workforce. It is based on Statistics Canada data suggesting that almost 17% of the labour force is highly stressed due to their work. Not all types of work-related stress would be compensable; however, if even 1% of the potential cases from workers claiming in Statistics Canada surveys to be highly stressed due to work result in a filed claim, it could have an impact of \$0.06 per \$100 of assessable payroll on the Board's required rate. Stated in another way, for every 1% of the population of workers who claim to be highly stressed due to work, the potential cost increase for assessed employers in NS is estimated at \$0.06 per \$100 of assessable payroll per annum. If 5% of those workers ended up on the workers compensation system, the estimated increase in the annual cost would be about \$0.30 per \$100 of assessable payroll.

Liability Impact

Staff at the Board expect that any liability impact associated with the proposed new policy will largely be limited to psychological injury claims currently under appeal. However, there may be a potential for psychological claims that were not accepted in the past to be re-filed under the new policy, or for former workers who have been out of work to file a claim for conditions now acceptable as a compensable. It is difficult to estimate the potential liability impact for these past claims. However, in order to provide the Board with an assessment of the potential liability impact, we calculated the increase in liability assuming that claims that were not accepted in the past are re-filed and accepted at the same rate as new claims.

For this calculation we used data for non-compensable stress claims in the past 6 years (2006 to 2012 – the period for which we have data on filed stress claims) to estimate the liability impact under scenarios 1 to 4. The calculations produced an estimated liability impact between \$2 million and \$11 million. The ultimate liability impact depends on the degree of retroactivity, if any, applied to the policy and is a one-time cost upon policy adoption that would be amortized according to the Board's funding strategy.

SECTION 5 – CONCLUSION

We believe the following points should be kept in mind when considering the adoption of a new psychological injury policy:

- The figures presented in this costing are estimates that should be interpreted with care. As noted in Section 2, there are numerous data challenges associated with a costing of this nature. As well, it is difficult to ascertain where the Board currently sits on the spectrum of stress compensability, let alone where the proposed policy will ultimately take it. We would place a low, to moderate at best, confidence in the calculated results. In such a situation, the best that can typically be achieved is an appreciation of the range of financial risks due to the policy and the potential likelihood of the conditions underlying each scenario being realized.
- The ultimate cost of a new psychological injury policy will be largely determined by the incidence of potential cases for covered workers in Nova Scotia, the entitlement and adjudication criteria applied in the policy, and the effectiveness of return to work strategies. Given this, the major risks are legislative interpretation and appeal decisions that significantly expand the scope of the coverage beyond its original intent, and a high incidence for those psychological injuries covered under the expanded interpretation of the proposed policy.
- Legislative and appeal decisions expanding the scope of coverage is primarily a legal risk. It is important to note that this risk exists currently, even in the absence of a psychological injuries policy, as a competent tribunal could determine on review of the merits of a particular case or cases that such cases are compensable under the Act whether there is a policy or not. Stated in another way, if the current Act confers benefits for certain psychological injuries then the fact that there is no policy for such injuries does not in and of itself reduce or eliminate the risk of expanding coverage. However, the Board should seek advice from its legal counsel with respect to the potential interpretations of the proposed policy and the associated risks.
- Introduction of the proposed “Psychological Injuries” policy may trigger changes in claiming patterns that result in a higher number of claims filed than otherwise would be the case. This risk is particularly acute if the incidence of psychological injury in Nova Scotia is significant. Neither the incidence of covered conditions in Nova Scotia nor the potential impact of the proposed policy on claiming patterns can be assessed accurately at this time.
- An alternative method for estimating the impact of the proposed psychological injury policy is for staff at the Board to review a sample of past disapproved stress claims and adjudicate the claim under the new policy to see if a different decision would have been reached. The frequency of revisions could provide an estimate of the expected financial impact of the policy. This method mitigates some of the aforementioned data issues and ensures that the adjudication criteria applied are consistent with the proposed policy’s intent. However, this method does not account for the potential increase in claims filed resulting from expanded coverage (perceived or real), nor does it explicitly consider the risk of appeal decisions expanding the coverage. Increased claims filing could be triggered by individuals or by disability income insurers.
- An increase in psychological injury claims may lead to higher administrative costs for the Board. Adjudication of psychological injury may involve more complex considerations than a physical injury. As well, decisions on psychological injury claims may be more likely to be appealed. Both of these factors could result in higher administrative costs for adjudicating stress claims.

- Awareness of the negative impact and prevalence of stress in society is increasing. Even without a change in practice, the frequency of psychological injury claims registered with the Board may increase due to increased awareness of the coverage and potential compensation.
- This report estimates the financial impact of the proposed psychological injury policy for assessed employers only based on the current and expected experience, as best as it can be determined. Estimates for self-insured employers have not been included given the limited data available. A simple estimate for self-insured employers could be obtained by making appropriate adjustments to the figures in this report. We would be happy to assist the Board with this estimation if they wish.

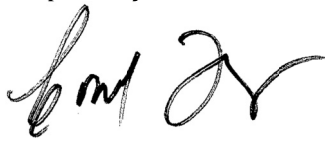
Actuarial Statement

The approach and calculations used for purposes of this report are consistent with accepted actuarial practice for risk assessments of this nature. Given that the data is either limited or non-existent in some areas, the assumptions underlying the calculations are broad based and are intended to illustrate the range of potential risks. It is impossible to provide a precise estimate of the actual cost of the proposed “Psychological Injuries” policy given the many variables and claiming patterns that could affect the ultimate results.

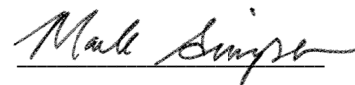
Our analysis should be viewed as an assessment of the potential financial risk to the Board of adopting the proposed policy. We believe that the risk assessment presented in this report provides a fair estimate of the potential range of costs. However, if the Board adopts the “Psychological Injuries” policy as described in this report, actual costs could still fall outside the estimated ranges as the available experience data is too limited to provide a more precise estimate at this time. If the policy is applied as we understand it, and if the experience is similar to that observed in other jurisdictions with similar coverage, then its annual cost can be up to \$0.02 per \$100 of assessable payroll. However, as outlined in this report, there are a variety of factors that cannot be adequately assessed at this time but which may lead to higher costs for the policy. While not expected to be the case based on the content of the policy and the limited data available, if the resulting accepted claims in Nova Scotia follow a much higher and broader pattern, then the annual cost of the policy could reach up to \$0.40 per \$100 of assessable payroll.

We trust that the information provided in this report is useful as the Board considers adoption of a new psychological injury policy. If you have any questions, or if we can be of further assistance, please do not hesitate to contact us.

Respectfully submitted,



Conrad Ferguson, FCIA



Mark Simpson, FCIA

APPENDIX

TABLE A.1 – COUNT OF ASSESSED CLAIMS BY SEVERITY CATEGORY

| Severity | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Not Approved / Disallowed | 3,563 | 5,056 | 5,288 | 4,660 | 5,047 | 5,216 | 4,776 | 5,015 | 3,918 | 3,267 |
| Approved, No Lost Time | 17,655 | 16,424 | 16,192 | 15,829 | 15,543 | 15,275 | 12,943 | 13,745 | 13,672 | 14,210 |
| Time Loss – up to 2 weeks | 3,471 | 3,426 | 3,524 | 3,273 | 3,335 | 3,237 | 2,778 | 2,743 | 2,501 | 2,430 |
| Time Loss – 2 to 5 weeks | 1,417 | 1,436 | 1,380 | 1,448 | 1,487 | 1,474 | 1,271 | 1,193 | 1,148 | 1,107 |
| Time Loss – 5 to 26 weeks | 2,477 | 2,691 | 2,585 | 2,316 | 2,251 | 2,136 | 2,025 | 1,844 | 1,854 | 1,670 |
| Time Loss – 26 to 52 weeks | 417 | 446 | 414 | 341 | 343 | 299 | 286 | 292 | 311 | 198 |
| Time Loss – Over 52 weeks | 689 | 820 | 715 | 619 | 532 | 510 | 440 | 437 | 310 | - |
| Total | 29,689 | 30,299 | 30,098 | 28,486 | 28,538 | 28,147 | 24,519 | 25,269 | 23,714 | 22,882 |

TABLE A.2 – PAYMENTS ON ASSESSED CLAIMS BY SEVERITY CATEGORY (\$ 1,000'S)

| Severity | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|----------------------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|
| Not Approved / Disallowed | 73 | 93 | 96 | 379 | 165 | 283 | 249 | 247 | 222 | 106 |
| Approved, No Lost Time | 6,177 | 7,132 | 6,226 | 7,101 | 7,080 | 6,795 | 6,138 | 5,739 | 5,412 | 3,922 |
| Time Loss - up to 2 weeks | 1,560 | 1,578 | 1,866 | 2,193 | 2,682 | 2,609 | 2,362 | 2,441 | 2,376 | 1,834 |
| Time Loss - 2 to 5 weeks | 2,245 | 2,619 | 2,486 | 2,997 | 3,474 | 3,457 | 3,173 | 2,911 | 2,763 | 2,392 |
| Time Loss - 5 to 26 weeks | 16,094 | 16,876 | 17,421 | 17,156 | 18,910 | 18,111 | 17,389 | 15,646 | 15,619 | 12,507 |
| Time Loss - 26 to 52 weeks | 11,240 | 11,307 | 12,432 | 12,354 | 13,638 | 10,322 | 9,319 | 8,993 | 8,565 | 4,852 |
| Time Loss - Over 52 weeks | 92,540 | 94,769 | 80,833 | 69,544 | 54,880 | 47,659 | 34,724 | 28,317 | 14,708 | - |
| Total | 129,928 | 134,375 | 121,361 | 111,722 | 100,830 | 89,236 | 73,355 | 64,293 | 49,665 | 25,615 |

TABLE A.3 – LOST TIME CLAIMS CODED TO COMMON PSYCHOLOGICAL INJURY NOI'S (2007-2011)

| Nature of Injury (NOI) | AB | BC | MB | NB | NL | NS | NT/NU | ON | PE | QC | SK | YT |
|--|------------|--------------|------------|------------|-----------|------------|--------------|--------------|-----------|--------------|------------|-----------|
| 52000 - Mental disorder or syndrome, uns. | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 11 | 7 | 0 |
| 52100 - Anxiety, stress, neurotic disorders, uns. | 387 | 138 | 194 | 11 | 8 | 49 | 8 | 399 | 3 | 833 | 188 | 5 |
| 52110 - Post-traumatic stress | 53 | 1,071 | 94 | 41 | 13 | 41 | 6 | 1,541 | 5 | 3,188 | 93 | 3 |
| 52130 - Panic disorder | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 2 | 0 |
| 52190 - Anxiety, stress, neurotic disorders, n.e.c. | 40 | 203 | 1 | 53 | 3 | 21 | 7 | 321 | 1 | 0 | 61 | 1 |
| 52191 - Depressive state | 5 | 7 | 0 | 1 | 2 | 1 | 0 | 64 | 0 | 214 | 10 | 0 |
| 52192 - Burn out | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 |
| 52193 - Adjustment disorder | 2 | 66 | 0 | 4 | 0 | 0 | 0 | 51 | 0 | 1,003 | 2 | 0 |
| 52194 - Psychological decompensation | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 23 | 0 | 0 | 0 | 0 |
| 52210 - Substance- induced mental disorder | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 |
| 52900 - Mental disorders or syndromes, n.e.c. | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 |
| Total | 532 | 1,489 | 289 | 110 | 26 | 112 | 22 | 2,460 | 9 | 5,257 | 363 | 9 |