RESEARCH AND EVALUATION

A PSYCHOSOCIAL SURVEY OF HEALTHCARE WORKERS

September 2023

WORKSAFE
Mahi Haumaru Aotearoa

Authorship

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Acknowledgement

The team would like to acknowledge Dr Mark Johnson (Manager Research and Evaluation) for contributing to the survey's development and implementation and the overall report's peer-review process. Special thanks to Julie Williamson (Principal Advisor System Strategies), Vanessa Cooper (Mental Health Work Specialist), and WorkSafe Healthcare Action Group for their insightful feedback on the overall report.

For their contributions to the format of the report, the team would like to thank Lynda Currie and Charlotte Rae (Communications and Channels).

The team would like to thank Timothy Hannan (former Senior Analyst Research and Evaluation) for his contributions to the first stage of the survey implementation and the research company Kantar Public for undertaking the fieldwork and preparing the final dataset and technical report.

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Executive summary

The Psychosocial Survey of Healthcare Workers (HCWs) is designed to contribute to an evidence-informed approach to address psychosocial harm in the healthcare setting by measuring indicators of psychosocial safety climate, demands at work, leadership, social capital, interpersonal relations, health and wellbeing, psychological distress, and hostile acts at work. Using a combination of three validated questionnaires; the Copenhagen Psychosocial Questionnaire III (COPSOQ III), the 12-item Psychosocial Safety Climate (PSC), and the World Health Organization Five Wellbeing Index (WHO-5), the survey aimed to provide data and insight on the nature of psychosocial factors in the healthcare sector and identify key features leading to positive and negative psychosocial work environments.

The survey was conducted from 25 February to 15 May 2022, covering 1,067 respondents aged 18 years and over who were (i) employees working for wages or salary, or self-employed and (ii) working in the healthcare industry. Specific healthcare organisations included were hospitals and medical and other healthcare services (including physical and mental health/counselling). Those working in residential care and social assistance services were excluded from the population of interest. Those without pay in a family business were also excluded. All surveys were completed online using a web-based platform. The survey data was weighted by age within gender and ethnicity. Weights were prepared using 2018 Census Data.

In keeping with WorkSafe's aspiration to be an insight-led regulator, this project aimed to collect data from workers employed in a group of healthcare organisations that experience high levels of psychosocial risk. It helped provide a robust baseline for future change monitoring and support the development of targeted guidance and future measures of the efficacy of interventions. Survey findings will support WorkSafe's Strategic Plan for Work-Related Health, "Healthy Work," which outlines a plan for a New Zealand Aotearoa where, ultimately, fewer people experience work-related ill-health. Data from this survey will inform stakeholder engagement with the healthcare sector, and support development of learning and education materials, design initiatives and inform strategic plans for WorkSafe.

Key findings of the survey

The survey has identified common psychosocial risk and protective factors experienced by New Zealand healthcare workers

HCWs report significantly lower Psychosocial Safety Climate (PSC) than all New Zealand workers. The survey found that approximately half of the HCWs report an overall PSC score of 36 or below, suggesting a higher risk of exposure to psychological distress (such as job strain, burnout, stress), bullying, and other psychosocial factors (e.g., high job demands or low job satisfaction). This proportion is significantly higher than that reported among all NZ workers[1], with 39.5%. HCWs appear to face greater risks from Work Pace and Emotional Demands. The sector also commonly reports lower Recognition, Role Clarity, and Predictability.

However, HCWs report lower Insecurity over Working Conditions and Job Insecurity. HCWs are more likely to report higher Possibilities for Development, Meaning of Work, Horizontal Trust (trust built among employees), Social Support from Colleagues and Sense of Community at Work (feeling part of the team).

Over half of healthcare workers report exposure to at least one offensive behaviours (either bullying, sexual harassment, or threats of violence) in the last 12 months before the survey

Compared to all New Zealand workers, HCWs are more likely to report exposure[2] to Bullying (33.0 % vs. 22.6%) and Threats of Violence (34.1% vs 14.0%) in the last 12 months.

[1] The 2021 New Zealand Workplace Barometer Report.
[2] 'Exposure' could include personal experience of the act happening to oneself or witnessing it occurring between others.

Higher exposure to Bullying, Sexual Harassment, and Threats of Violence are strongly associated with lower PSC scores. Among workers indicating a very low PSC score (≤26, very high risk of psychosocial issues), the proportions of exposure to Bullying, Sexual Harassment, and Threats of Violence are 64.0%; 22.0%, and 50.1%, respectively. These proportions are significantly higher than that reported by workers who indicate a higher PSC score.

Psychological distress, including burnout (physical and emotional exhaustion), stress (problems relaxing), and cognitive stress (problems concentrating) is common in healthcare workers

One in seven (14.0%) HCWs report exposure to at least one form of psychological distress (i.e., Physical Exhaustion, Emotional Exhaustion, Stress, or Cognitive Stress) all the time. Only 23.3% of workers report not being exposed to any psychological distress. Physical Exhaustion is the most common psychological distress occurring from part of the time to 'all the time', being reported by HCWs by 72.5%, followed by Emotional Exhaustion (67.7%), Stress (57.9%), and Cognitive Stress (46.4%).
Some 76% of HCWs rate their health as good and above. However, this proportion is significantly lower than that reported by all NZ workers (81%). HCWs who indicate PSC scores greater than or equal to 41 (low risk) rate their health significantly better than those who report a lower PSC score (high risk).

Psychosocial factors vary by healthcare setting

Compared to the average, HCWs working in a hospital face greater risks from Work Pace, Insecurity over Working Conditions, and Work-life Conflict. They are more likely to report low Recognition, low Job Satisfaction, and unfair treatment at work. However, they report significantly higher Social Support from Colleagues and Horizontal Trust (trust built among employees). This suggests that the survey results could be used to perform risk assessments to achieve the most appropriate measures to address psychosocial risks/harm in a particular healthcare setting.

Psychosocial working conditions in the healthcare sector differ markedly by demographics

Compared to males, female workers appear to face greater risks from Work Pace, Sexual Harassment, and Burnout. They are also less likely to report strong Influence at Work, Possibilities for Development, and Meaning of Work. However, male HCWs report significantly higher Job Insecurity than their female colleagues. Higher exposure to psychosocial risks in female workers is likely to be associated with their occupation. Therefore, further analysis is needed to better understand these gaps.

Older workers aged 60 years and above appear to face fewer risks from Stress, Burnout, Sexual Harassment, Threats of Violence, Job Insecurity, Work-life Conflict, and Insecurity over Working Conditions than HCWs overall. On the other hand, they are more likely to report high Meaning of Work and Job Satisfaction.

Large healthcare organisations with over 100 employees are more likely to experience higher psychosocial risks than the average

Besides demographics, psychosocial risks and harm in the healthcare sector are significantly different by business size. Large organisations employing over 100 workers (three-quarters of these organisations are hospitals) report the lowest PSC of 34.6, suggesting a high risk of depression and job strain. In addition, large organisations with more than 100 workers appear to face more significant risks from Quantitative Demands, Work Pace, Emotional Demands, Role Conflicts, and Insecurity over Working Conditions. HCWs in these organisations report greater exposure to Bullying, Sexual Harassment, and Threats of Violence than the average. Low Social Capital, Predictability, Recognition, and Role Clarity are commonly reported by HCWs in large organisations.

Psychosocial risks are strongly associated with night work and long working hours

Compared to those who do not work at night, workers who work at least three hours between midnight and 5 am in the last four weeks appear to face higher risks from Work Pace, Emotional Demands, Role Conflicts, and Work-life Conflicts. Reported exposure to Burnout, Bullying, Sexual Harassment, and Threats of Violence is significantly higher among these workers.

Compared to the average, those working more than 51 hours per week are more likely to report exposure to Threats of Violence. They also face greater risks from Demands at Work, Role Conflict, Job Insecurity, Work-life Conflicts, and Burnout (both physical and emotional exhaustion).

Self-reported exposure to psychosocial risks is uneven by regions where workers primarily work

Healthcare workers working in the Bay of Plenty and Northland appear to face less risk from Insecurity over Working Conditions than the average. However, those in Counties Manukau report a significantly higher mean score for Insecurity over Working Conditions. These findings provide additional information to support organisational leadership and activities on workplace health and safety in the healthcare sector.

1. Background

Psychosocial hazards are a significant workplace health and safety issue. Cox and Griffiths (1995) defined psychosocial hazards as "those aspects of work design and the organisation and management of work, and their social and environmental contexts, which have the potential for causing psychosocial or physical harm." According to the International Labour Organisation (2016), psychosocial factors are "interactions between and among work environment, job content, organizational conditions and workers' capacities, needs, culture, personal extra-job considerations that may, through perceptions and experience, influence health, work performance, and job satisfaction".

According to Statistics New Zealand (2021), there are 263,800 workers and 21,834 enterprises in the healthcare and social assistance category Q based on ANZSIC[3], making it one of the largest industries in New Zealand. The industry is divided into four subsectors: hospitals, medical and other health care services, residential care services, and social assistance services. More than 80% of the healthcare and social assistance (HCSA) workforce is female. Over 55% of them are people aged 45 years and over. The New Zealand Medical Workforce in 2022 showed an increase in the population of Māori, female, and practising doctors. Female doctors were mainly in the age group between 25 and 34 years, while male doctors were those aged 30-34 and 60-64 (Medical Council of New Zealand, 2022).

Psychosocial hazards in the healthcare sector have been captured in several studies. The European Agency for Safety and Health at Work (EU-OSHA) (2010) identified stress, violence, and harassment as significant barriers to occupational health and safety in the healthcare industry. A literature review by WorkSafe New Zealand (2021) has concluded that psychosocial risk factors are markedly different in healthcare settings. While stress, somatic symptoms, depression, and burnout are the most common psychological distress among hospital workers, healthcare workers in community settings appear to face a lack of support and role ambiguity at work. Workplace exposure to hostile acts is also common among healthcare workers regardless of their work setting. Exposure to hostile acts is more common for female workers. Nearly nine in ten female paramedics reported exposure to verbal abuse, significantly higher than that reported by their male colleagues (80%) (Boyle et al., 2007). Female healthcare workers in the hospital were more likely to be exposed to discrimination and bullying (Walton, 2015).

The New Zealand Workplace Barometer (NZWB) was implemented in a collaboration between Massey University and WorkSafe over three years, from 2019 to 2021. The survey used the Psychosocial Safety Climate (PSC-12) questionnaire to explore the nature of psychosocial health problems in New Zealand workers and identify the poor psychosocial health outcomes at an organisational level. The NZWB found the four key features contributing to a positive work environment: management competence, inclusion, organisational justice, and a high level of Psychosocial Safety Climate. Although the survey provided invaluable findings for developing a healthy and safe workplace and evaluating the effectiveness of policies over time, its sample was insufficient to draw an insightful conclusion for individual sectors (Forsyth et al., 2021).

WorkSafe released the New Zealand Psychosocial Survey (NZPS) report in June 2022. The NZPS collected data from a large sample of workers using the internationally recognised and validated Copenhagen Psychosocial Questionnaire III (COPSOQ-III) (WorkSafe, 2022). According to the NZPS, HCSA workers appear to face a greater risk from emotional demands and demands for hiding emotions (concealing their feelings at work) than workers in other industries. In addition, they were exposed to bullying and threats of violence more often than all New Zealand workers. While managers and colleagues primarily caused bullying in the HCSA sector, threats of violence occurred during activities with clients, customers, or patients. However, HCSA workers are more likely to report receiving social support from their colleagues at work and being clear about their work's responsibilities, expectations, and objectives.

While the NZPS provides a nationally representative sample, it needs to contain a larger pool of participants in every sector to support data mining for more subtle analysis or all claims of representativeness within specific industries or populations. There still needs to be abundant good quality, reliable data about psychosocial risks in the workplace to base the development of assessment tools, interventions, and monitoring/surveillance strategies. HCSA is one of WorkSafe's prioritised

[3] Australia New Zealand Standard Industrial Classification

sectors. WorkSafe regulates through proactive engagement and reactive intervention in the healthcare sector. More insightful evidence on psychosocial factors at work will be helpful for WorkSafe to develop a more targeted approach for a specific industry, such as HCSA, that has a greater exposure to psychosocial risks and harm.

Conducted in 2022, the Psychosocial Survey of Healthcare workers used a combination of three questionnaire sets; including the COPSOQ-III, the PSC-12, and the World Health Organization Five Wellbeing Index (WHO-5), aiming to provide a more comprehensive picture of psychosocial health and wellbeing in the healthcare sector. The survey focused on the following questions:

- What are the current psychosocial risks for healthcare workers in New Zealand?
- How do these psychosocial risks affect healthcare workers' health and wellbeing?

In keeping with WorkSafe's aspiration to be an insight-led regulator, this project aimed to collect data from a group of organisations that experience high levels of psychosocial risks. It helped provide a robust baseline for future change monitoring and support the development of more targeted guidance and interventions. Survey findings could support WorkSafe's Strategic Plan for Work-Related Health, "Healthy Work," which outlines a plan for a New Zealand where, ultimately, fewer people experience work-related ill-health. Data from this survey could be used to support stakeholder engagement, develop learning and education materials, design initiatives and inform strategic plans for WorkSafe.

2. Methodology summary

2.1. Population of interest

The population of interest for this survey is people aged 18 years and over who were:

- employees working for wages or salary, or self-employed and
- working in the healthcare industry. Specific healthcare industries included were:
    - hospitals
    - medical and other healthcare services (including physical and mental health/counselling).

Those working in residential care and social assistance services were excluded from the population of interest. This decision was taken because while Healthcare and Social Assistance workers are usually combined into a single sector group for the purposes of analysis, they are quite different in terms of their demographic profiles. Those working without pay in a family business were also excluded.

Also, we considered that special attention should be given to workers in the Healthcare sector which was still experiencing elevated demands due to the impact of the COVID-19 global pandemic and staff shortages.

2.2. Fieldwork dates

The questionnaire was conventionally piloted with 30 respondents for the online panel survey and then a further 100 respondents. The pilot was done to test the occupations captured, interview length and survey processes. Fieldwork was conducted between 25 February and 15 May 2022.

2.3. Sample size and source

In total, 1,067 respondents completed the survey. All surveys were completed online using a web-based tool. A push-to-web methodology was used to boost the online panel survey, with sample sourced from the Electoral Roll. The open occupation field in the Electoral Roll was used to identify likely healthcare workers. Individuals were randomly selected from this group and sent a letter inviting them to visit a website to complete the survey online. The response rate was 24%.

2.4. Weighting

The survey data was weighted by age within gender and ethnicity. A simple cell-based weighting approach was adopted. Weights were prepared using 2018 Census Data of people who were:

- Aged 18 years and over,
- Working for wages or salary or self-employed (and not employing others).
- Working in healthcare – this was defined as those who work in hospitals, or medical and other healthcare services in a range of professional and non-professional roles based in both institutions (hospitals) and community/primary care. The definition excluded residential care and social assistance.

The minimum and maximum weighting factors were 0.465 and 3.077 respectively.

(Please check Appendix 4 for more details on the survey methodology).

2.5. Analysis

All analysis was performed in-house using RStudio 4.0.5. Reported differences between groups (or between a certain group and the average) are statistically significant at the 95% confidence level

($p<0.05$) unless stated otherwise. The reliability of each of the scales and subscales used in the survey were checked for internal consistency of responses.

3. Measures

The Psychosocial Survey of Healthcare workers used three sets of questionnaires: the Copenhagen Psychosocial Questionnaire (COPSOQ) version III, the Psychosocial Safety Climate 12 item (PSC-12), and the World Health Organization Five Wellbeing Index (WHO-5). Figure 1 describes all psychosocial scales in the survey.

3.1. The Copenhagen Psychosocial Questionnaire III (COPSOQ-III)[4]

Originating from Denmark, the Copenhagen Psychosocial Questionnaire (COPSOQ) has been used in many countries and translated into several languages. The COPSOQ-III comprises a range of five-point Likert format questions, wherein respondents state how frequently or to what extent they experience certain conditions at work. Each question is referred to as an item. The COPSOQ assigns a score between 0 and 100 for each possible response to the item. Groups of items are referred to as a Scale (e.g., Quantitative Demand or Work Pace). The scale measures the respondent's overall level of exposure to a risk factor or condition. Scales are reported as a score between 0 and 100, representing the mean (average) score of the items within it. Finally, groups of Scales are referred to as a Domain. For example, a Domain 'Demands at Work' in the psychosocial survey of healthcare workers consists of three Scales: Quantitative Demands, Work Pace and Emotional Demands.

The survey used the English version of the COPSOQ-III questionnaire capturing 32 core items and adding horizontal trust (TE3). Seven further items relating to indicators of specific harm were also included.

- TE3, Horizonal Trust
- TV1, Threats of Violence
- BU1, Bullying
- SH1, Sexual Harassment
- BO2 & BO3, Burnout
- ST1, Stress
- CS1, Cognitive Stress.

Following cognitive testing for the New Zealand Psychosocial Survey (2022), several changes were made to ensure transferability of the COSOQ-III to the New Zealand context. These changes were also applied to the version of the COPSOQ used in the current healthcare survey. Details of the previous cognitive testing can be found in the technical report in Appendix 3.

3.2. The Psychosocial Safety Climate 12 items (PSC - 12)

The survey used the Psychosocial Safety Climate- 12 items (PSC-12). The PSC-12 consists of four domains, including Management Commitment (MC), Management Prioritisation (MP), Organisational Communication (OC), and Organisational Participation (OP). Each domain contains three items. Respondents answered the question using five-point Likert scales from 'strongly disagree' to 'strongly agree' (scoring from 1-5). Domain scores are the sum of three items with the minimum possible score of 3, and the maximum possible score of 15. The overall PSC scale is computed as the sum of 12 items. The minimum overall PSC score is 12, and the maximum possible score is 60.

In this survey, no changes to the wording were made, however additional instruction was included as well as one change to grammar. These adjustments are summarised below.

[4] For information on COPSOQ and how to use it, please check this website https://www.copsoq-network.org.

- Additional instruction added MC1, MC2, MC3, MP2, MP3 to clarify senior management "By senior management, we mean leaders responsible for making strategic decisions."

- Grammar changes at OC1 "effect" changed to "affect" for specificity and correctness.

3.3. The World Health Organization Wellbeing Five Index (WHO-5)[5]

Originating from a World Health Organization (WHO) meeting in Stockholm in 1998, the WHO-5 has become well-known and used to assess psychological wellbeing. Since it is based on the Major Depression Inventory, which measures depression symptoms, the WHO-5 is used to explore the possibility of screening for depression (Topp et al., 2014).

The World Health Organization Wellbeing Five Index (WHO-5) questionnaire consists of five statements on how people have felt in the last 14 days. Respondents provide responses on a six-point Likert scale ranging from 'At no time' (0) to 'All the time' (5).

Below are the five statements asked in the WHO-5:

- I have felt cheerful in good spirits.
- I have felt calm and relaxed.
- I have felt active and vigorous.
- I woke up feeling fresh and rested.
- My daily life has been filled with things that interest me.

The raw score is calculated as the sum of all five answers. The raw score ranges from 0 to 25, 0 representing worst possible and 25 representing best possible quality of life. To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents worst possible quality of life, whereas a score of 100 represents best possible quality of life.

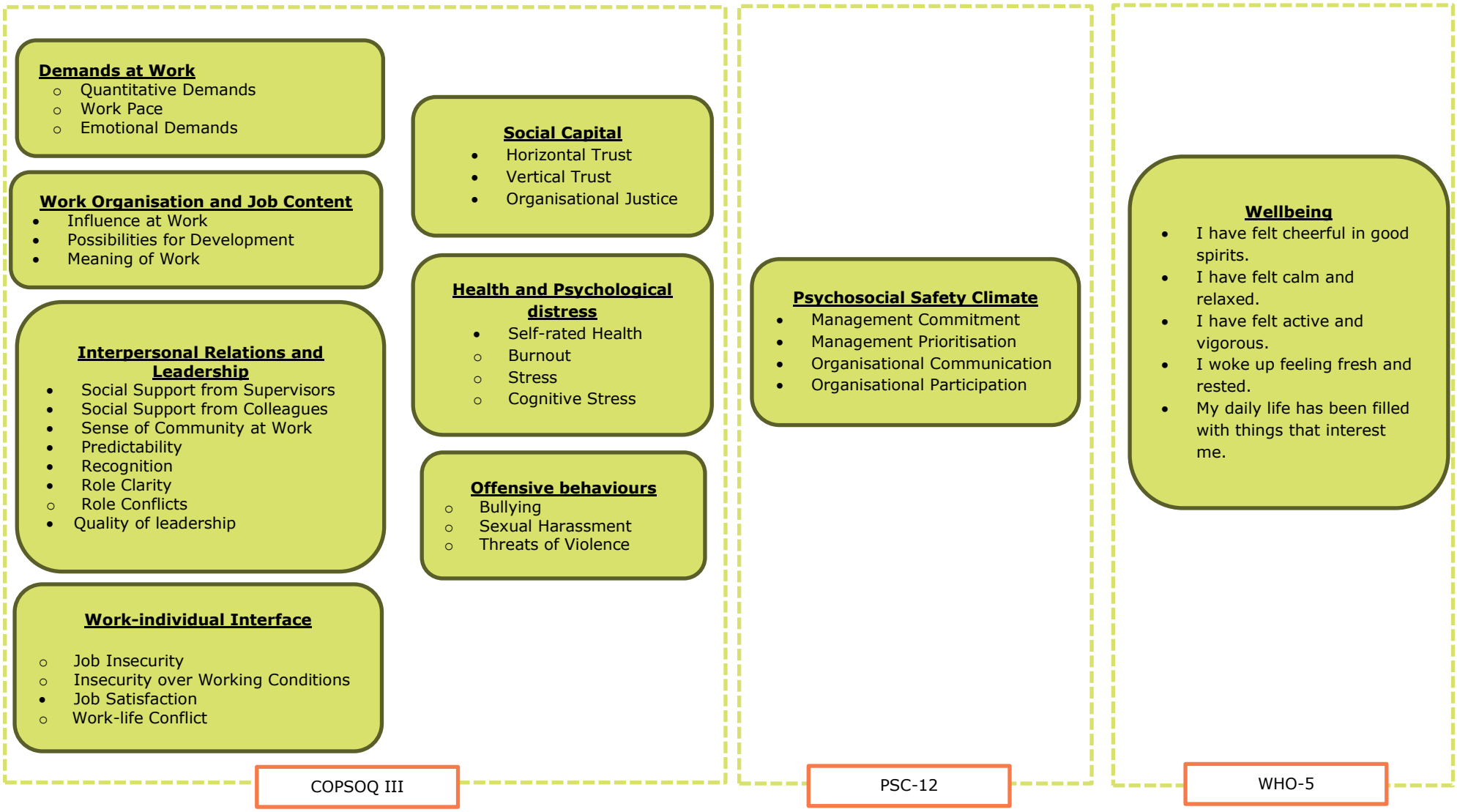
In this survey, the questionnaire was the original English version of the WHO-5 and no changes were made to content.

(Please refer to Appendices 3 and 4 for more information on the survey questionnaire).

[5] https://www.psykiatri-regionh.dk/who-5/Documents/WHO-5%20questionaire%20-%20English.pdf

- High = Higher risk
- High= Lower risk

Figure 1: Summary of all psychosocial scales in the psychosocial survey of healthcare workers



4. Sample overview

This section details the achieved sample composition by key demographic and grouping variables. Weighted results are reported.

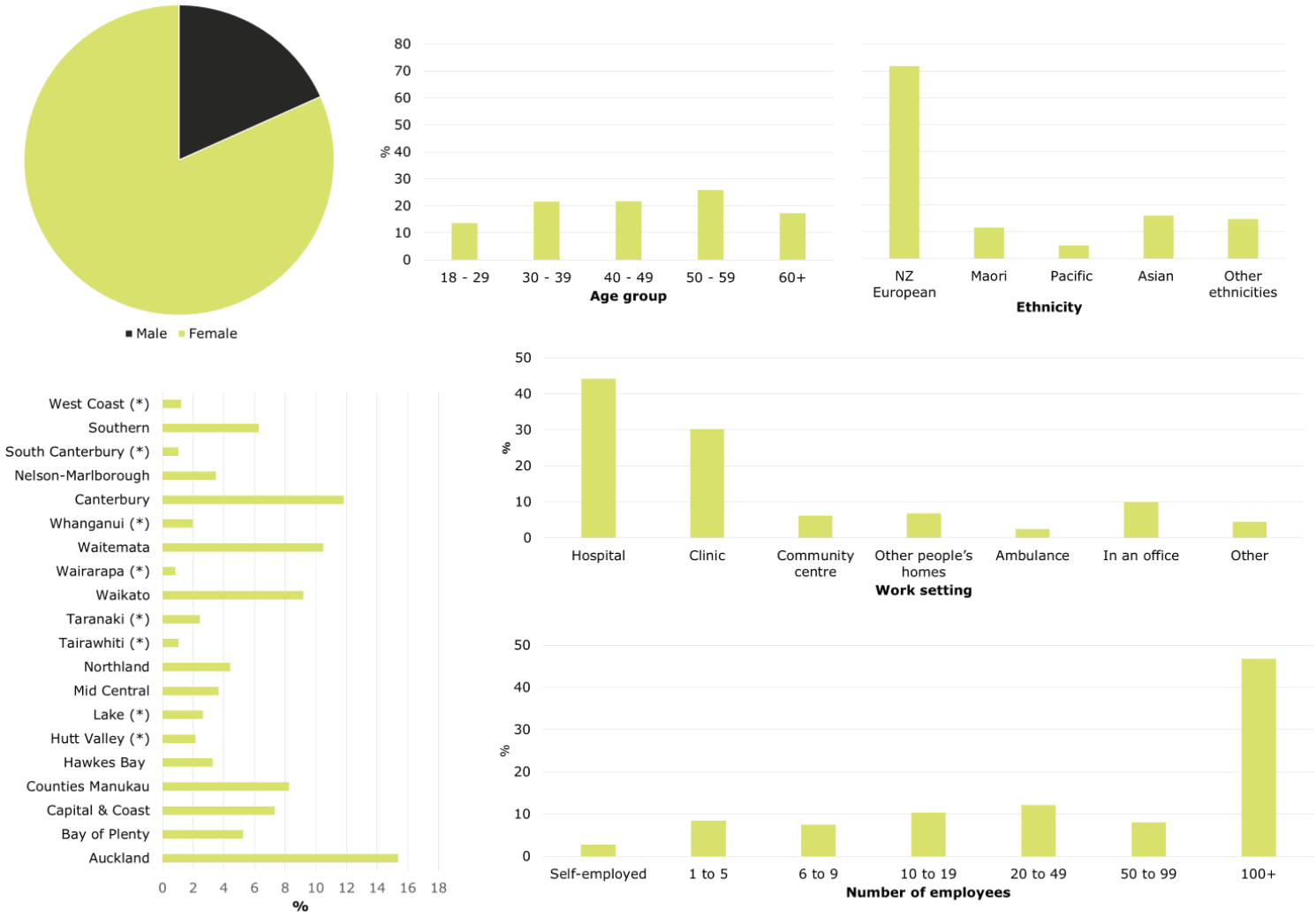


Figure 2: Demographic characteristics of the sample (%)
Note: Respondents can identify with multiple ethnicities. (*) Small samples. For region information, workers are asked, 'Which DHB region or regions do you mostly work in?'.

5. Detailed findings

5.1. The Copenhagen Psychosocial Questionnaire III (COPSOQ-III): Psychosocial work environment in the Healthcare sector

The Psychosocial Survey of Healthcare workers used COPSOQ-III to explore a number of psychosocial factors in the working environment, including Demands at Work, Work Organisation and Job Content, Interpersonal Relations and Leadership, Work-individual Interface, Social Capital, Offensive Behaviours, and Health and Psychological Distress.

5.1.1. DEMANDS AT WORK

In this survey, Demands at Work consists of the following scales:

- Quantitative Demands (how much a person can perform in their work or if the workers are behind their schedule)
- Work Pace (the speed at which tasks have to be performed)
- Emotional Demands (dealing with other people's feelings or being placed in emotionally difficult situations) at work.

As showed in Figure 3, HCWs report significantly higher scores for Quantitative Demands, Work Pace, and Emotional Demands than all NZ workers. High levels of Demands at Work are known to be harmful to workers. For example, high job demands contribute to an elevated risk of coronary heart diseases among British workers (Kuper & Marmot, 2003).

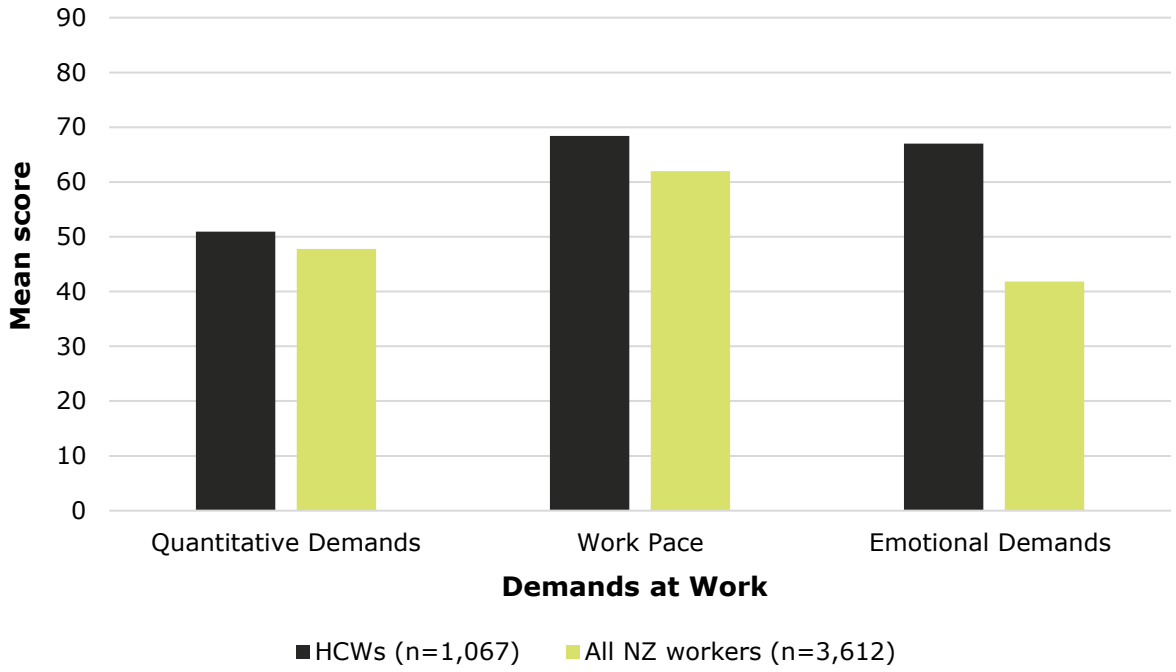


Figure 3: Demands at work mean score in healthcare workers and all New Zealand workers.

Note: Data for all NZ workers is obtained from the New Zealand Psychosocial Survey 2021 (WorkSafe NZ, 2022).

DEMANDS AT WORK BY WORK SETTING

When examined by work setting (Figure 4), HCWs who work in a hospital report significantly higher scores for Work Pace than all HCWs. People who work in an ambulance report significantly higher scores for Emotional Demands than those in other healthcare settings.

Figure 4: Demands at Work mean score by work setting

5.1.2. WORK ORGANISATION AND JOB CONTENT

In this survey, Work Organisation and Job Content consist of the following scales:

- Influence at Work (the capacity to have an effect on how work is done, for example, planning work or prioritising tasks)
- Possibilities for Development (opportunities for learning and career development)
- Meaning of Work (understanding how workers' work contribute to the organisation).

The mean scores for Influence at Work, Possibilities for Development, and Meaning of Work for HCWs are 55.2, 72.8, and 81.6, respectively. HCWs report significantly higher scores for Possibilities for Development and Meaning of Work compared to all NZ workers (Figure 5). A high level of Possibilities for Development and Meaning of Work is beneficial for workers. According to a study in Netherlands, high Possibilities for Development reduced work disability, while high Meaning of Work contributed to a decrease in unemployment (Van Zon et al., 2022).

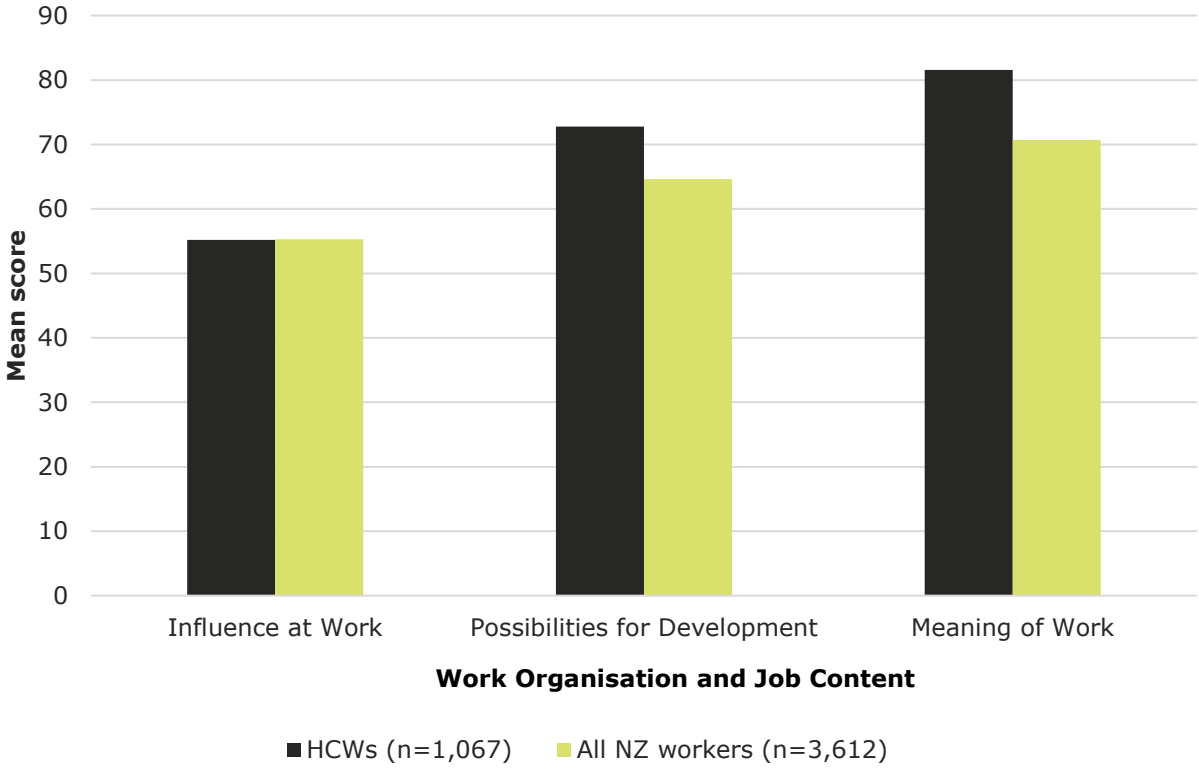


Figure 5: Work Organisation and Job Content mean score in healthcare workers and all New Zealand workers.

Note: Data for all NZ workers is obtained from the New Zealand Psychosocial Survey 2021(WorkSafe NZ, 2022).

WORK ORGANISATION AND JOB CONTENT BY WORK SETTING

When examined by work setting (Figure 6), there is no significant difference in Influence at Work, Possibilities for Development, and Meaning of Work among HCWs regardless of their work setting.

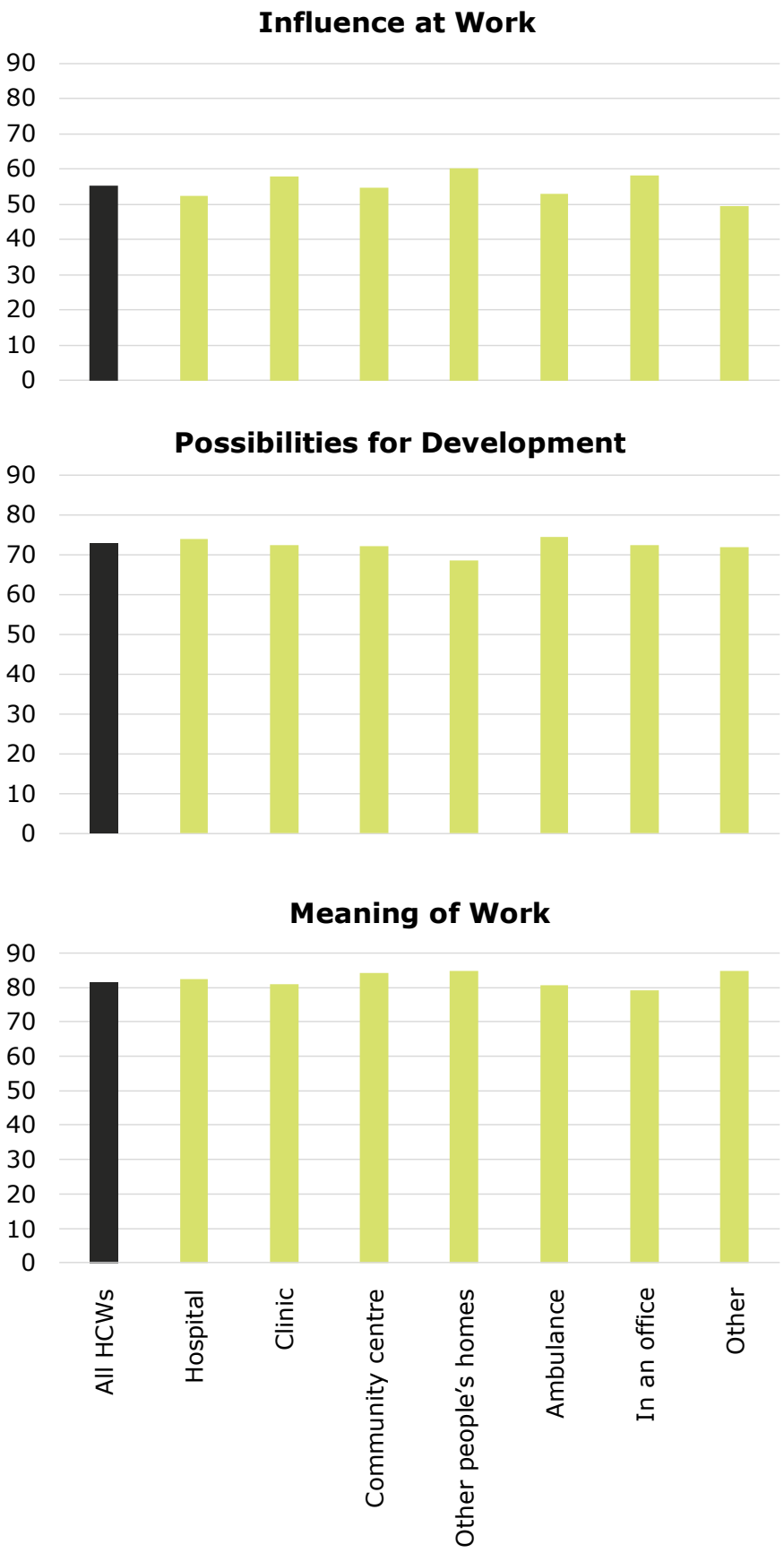


Figure 6: Work Organisation and Job Content mean score by work setting.

5.1.3. INTERPERSONAL RELATIONS AND LEADERSHIP

In this survey, Interpersonal Relations and Leadership consists of the following scales:

- Social support from Supervisors (support for workers' direct manager if they need it)
- Social support from Colleagues (support from colleagues if the workers need it)
- Sense of Community at Work (a feeling of being part of the team)
- Predictability (receiving relevant information to avoid uncertainty and insecurity at work)
- Recognition (workers' effort at work is valued and acknowledged by their manager)
- Role clarity (ability to understand responsibilities, expectations, and tasks at work)
- Role conflicts (possible conflict arising from task demands or prioritisation)
- Quality of leadership (leadership capabilities of the next higher manager).

As in Figure 7, the mean scores for Social Support from Supervisors, Social Support from Colleagues, and a Sense of Community at Work are 63.4, 72.7, and 80.5, respectively. Compared to all NZ workers, HCWs report significantly lower scores for Social Support from Supervisors but markedly higher scores for Social Support from Colleagues and a Sense of Community at Work. High Social Support from Colleagues and a Sense of Community at work are good for workers. Research has found that strong social support is essential for workplace health and safety. People who receive high social support are more resilient at work (Hämmig, 2017; Wang et al., 2018).

Compared to all NZ workers, HCWs report significantly lower scores for Predictability, Recognition, and Role Clarity. Low scores for these scales are known to be harmful to workers. However, HCWs are more likely to report high Quality of Leadership than NZ workers overall.

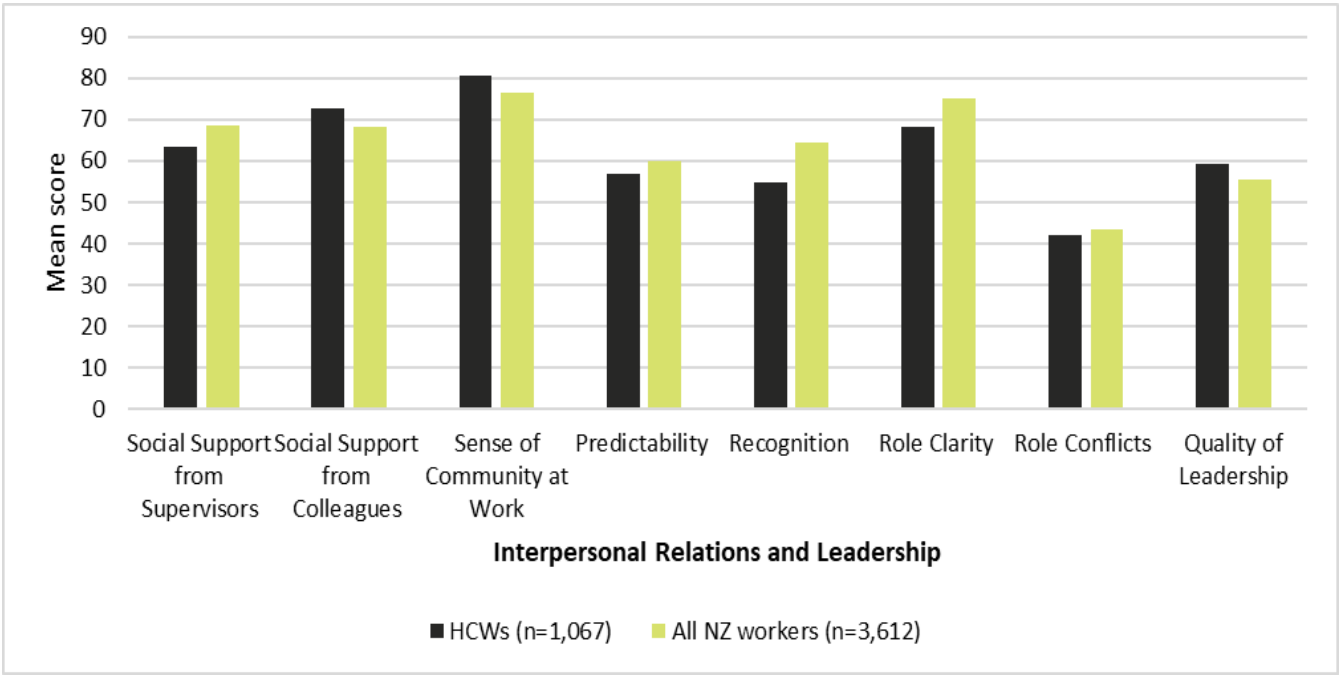


Figure 7: Interpersonal Relations and Leadership mean score in healthcare workers and all New Zealand workers.

Note: Data for all NZ workers is obtained from the New Zealand Psychosocial Survey 2021 (WorkSafe NZ, 2022).

INTERPERSONAL RELATIONS AND LEADERSHIP BY WORK SETTING

When examined by work setting (Figure 8), those working in an ambulance report significantly higher scores for Social Support from Colleagues than all HCWs as well as workers in other healthcare settings.

Healthcare workers in a hospital report significantly lower scores for Recognition, while office-based healthcare workers report significantly higher scores for this scale compared to all HCWs. People working in a community centre report significantly lower scores for Role Clarity than all HCWs. Those working in an ambulance are most likely to report exposure to Role Conflict, while workers in a clinic are least likely to be exposed to this psychosocial risk factor (Figure 9).

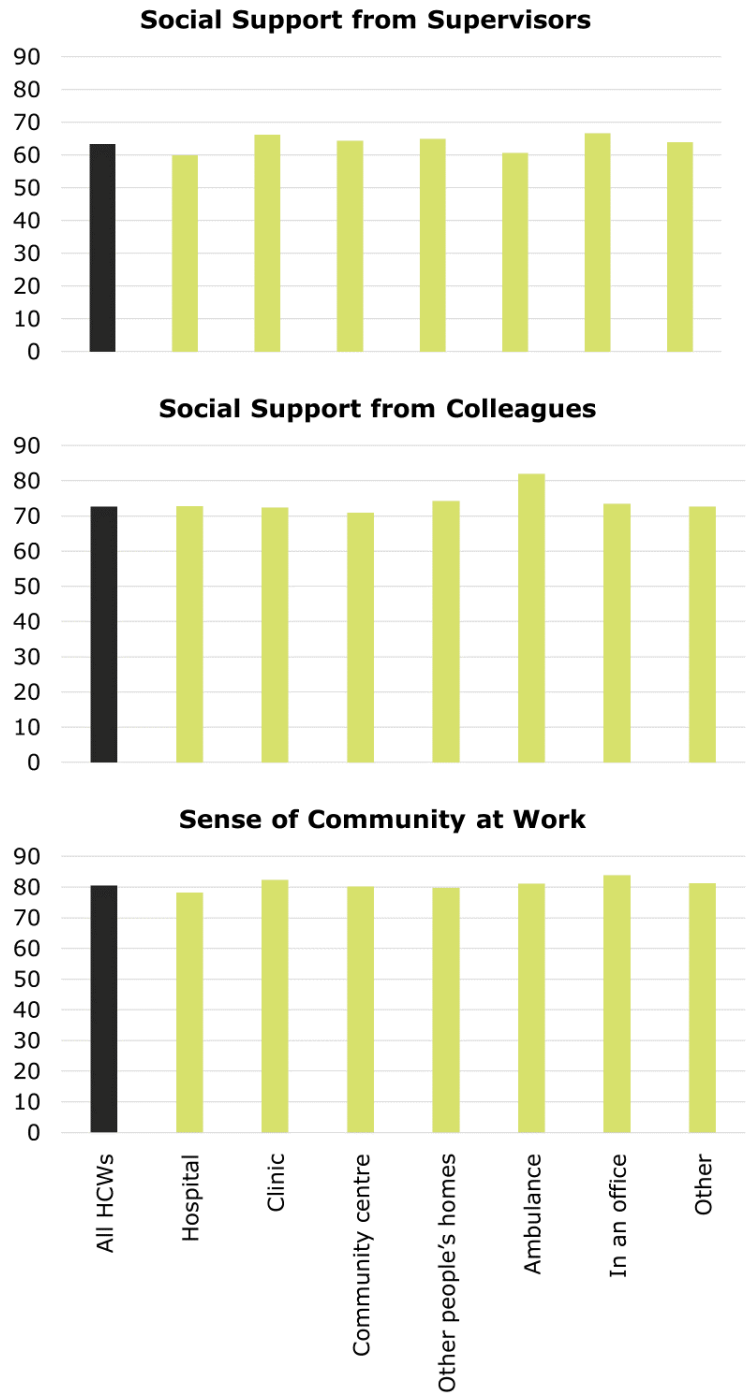


Figure 8: Interpersonal Relations and Leadership mean score by work setting (1).

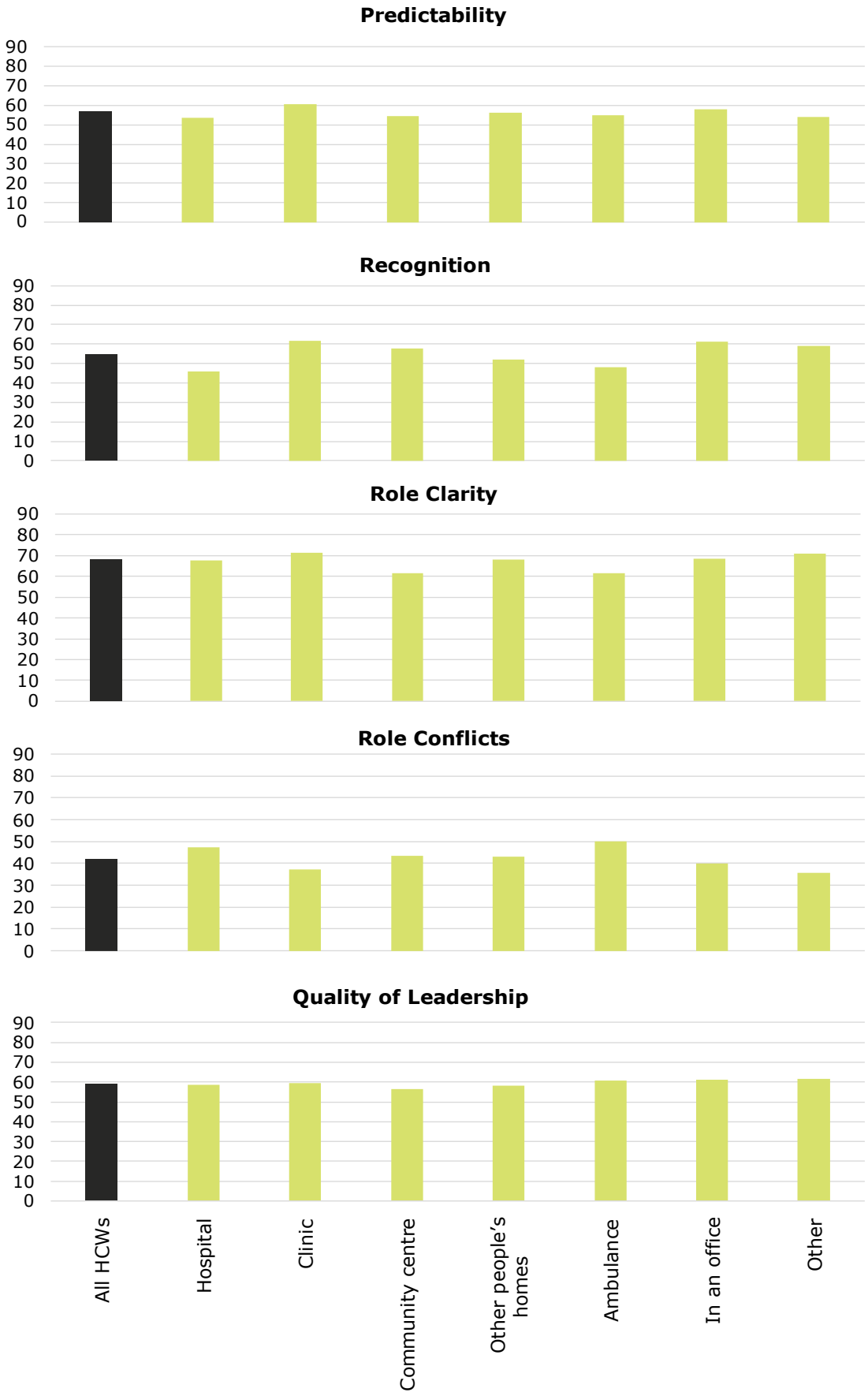


Figure 9: Interpersonal Relations and Leadership mean score by work setting (2).

5.1.4. WORK-INDIVIDUAL INTERFACE

In this survey, Work-individual Interface consists of the following scales:

- Job Insecurity (to deal with all forms of employment's security)
- Insecurity over Working condition (to deal with the changing of working schedule or content, for example working hours or relocation)
- Job Satisfaction (level of contentment employees feel with their job)
- Work-life Conflict (to deal with the impact of work on personal life).

Compared to all NZ workers, HCWs report lower scores for Job Insecurity and Insecurity over Working conditions and higher scores for Job Satisfaction (Figure 10).

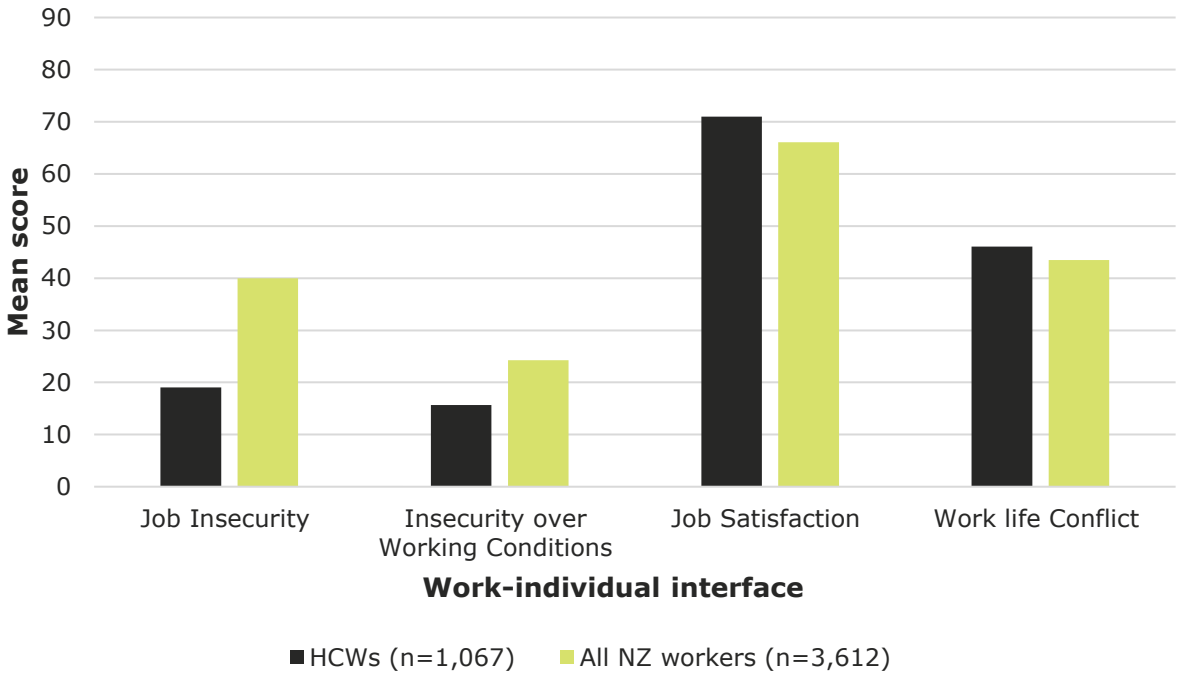


Figure 10: Work-individual Interface mean score in healthcare workers and all New Zealand workers

Note: Data for all NZ workers is obtained from the New Zealand Psychosocial Survey 2021 (WorkSafe NZ, 2022).

WORK-INDIVIDUAL INTERFACE BY WORK SETTING

When examined by work setting (Figure 11), those working in hospital report higher scores for Insecurity over Working conditions and Work-life Conflict, and lower scores for Job Satisfaction than all HCWs.

Figure 11: Work-individual Interface mean score by work setting

5.1.5. SOCIAL CAPITAL

In this survey, Social Capital consists of the following scales:

- Horizontal Trust (trust built among employees and if the employees trust each other),
- Vertical Trust (trust built between employees and managers),
- Organisational Justice (whether employees are fairly treated at work)

The mean scores for Horizontal Trust, Vertical Trust, and Organisational Justice among healthcare workers are 68.0, 63.9 and 57.2, respectively. Compared to all NZ workers, HCWs report significantly higher scores for Horizontal Trust and a lower score for Organisational Justice (Figure 12). High Horizontal Trust is good for workers; however, low Organisational Justice is harmful to them. A study in ten hospitals in Finland found that low Organisational Justice was associated with a high risk of sickness absence and minor psychiatric morbidity in both male and female workers (Kivimäki et al., 2003).

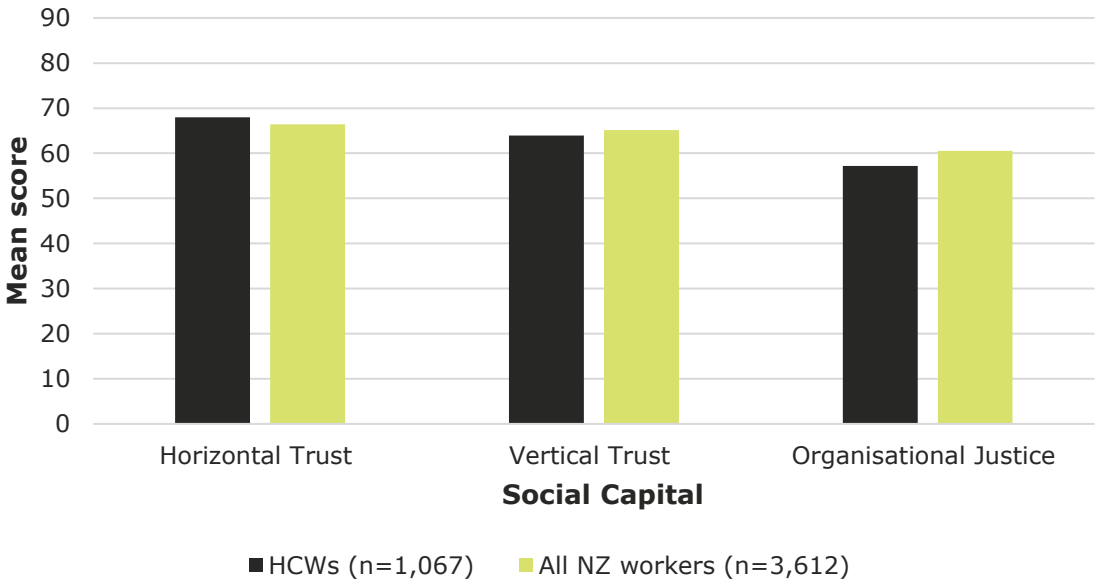


Figure 12: Social Capital mean score in healthcare workers and all New Zealand workers

Note: Data for all NZ workers is obtained from the New Zealand Psychosocial Survey 2021 (WorkSafe NZ, 2022).

SOCIAL CAPITAL BY WORK SETTING

When examined by the work setting (Figure 13), those working in a hospital report significantly lower Social Capital than the average healthcare worker. On the other hand, those working in a clinic setting report significantly higher Social Capital than all healthcare workers.

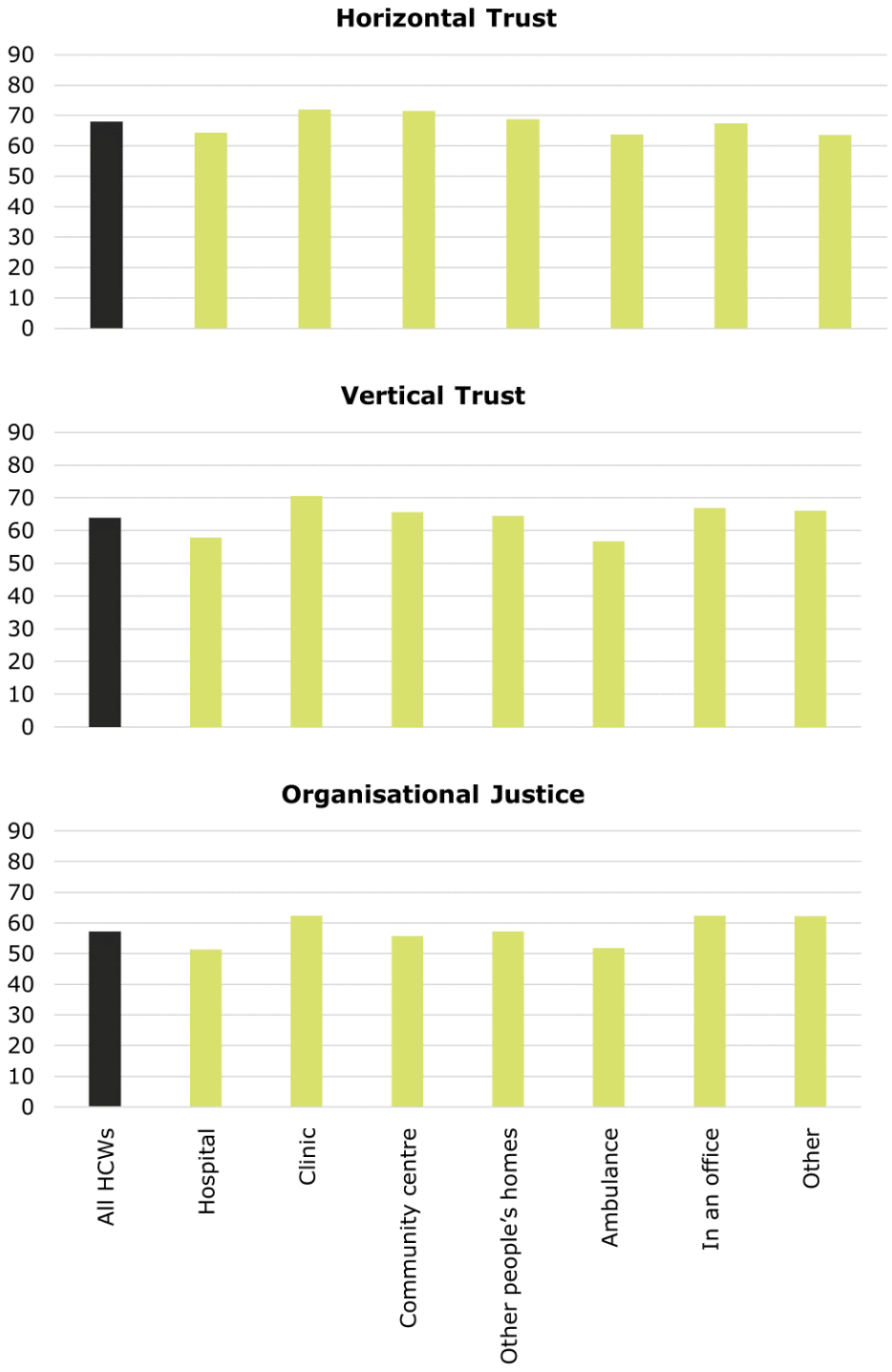


Figure 13: Social Capital mean score by work setting

5.1.6. OFFENSIVE BEHAVIOURS IN THE WORKPLACE

The survey focuses on three types of offensive behaviours at work:

- Bullying (repeated exposure to unpleasant or degrading treatment in the workplace and the workers find it hard to protect themselves at work)
- Sexual Harassment (exposure to unwanted sexual-related behaviours at work)
- Threats of Violence (exposure to threat of violence at work).

Over half of the healthcare workers report exposure[6] to at least one offensive behaviour (either Bullying, Sexual Harassment, or Threats of Violence) in the last 12 months. Compared to all New Zealand workers, HCWs are more likely to report exposure to Bullying (33.0 % vs. 22.6%) and Threats of Violence (34.1% vs 14.0%) in the last 12 months (Figure 14).

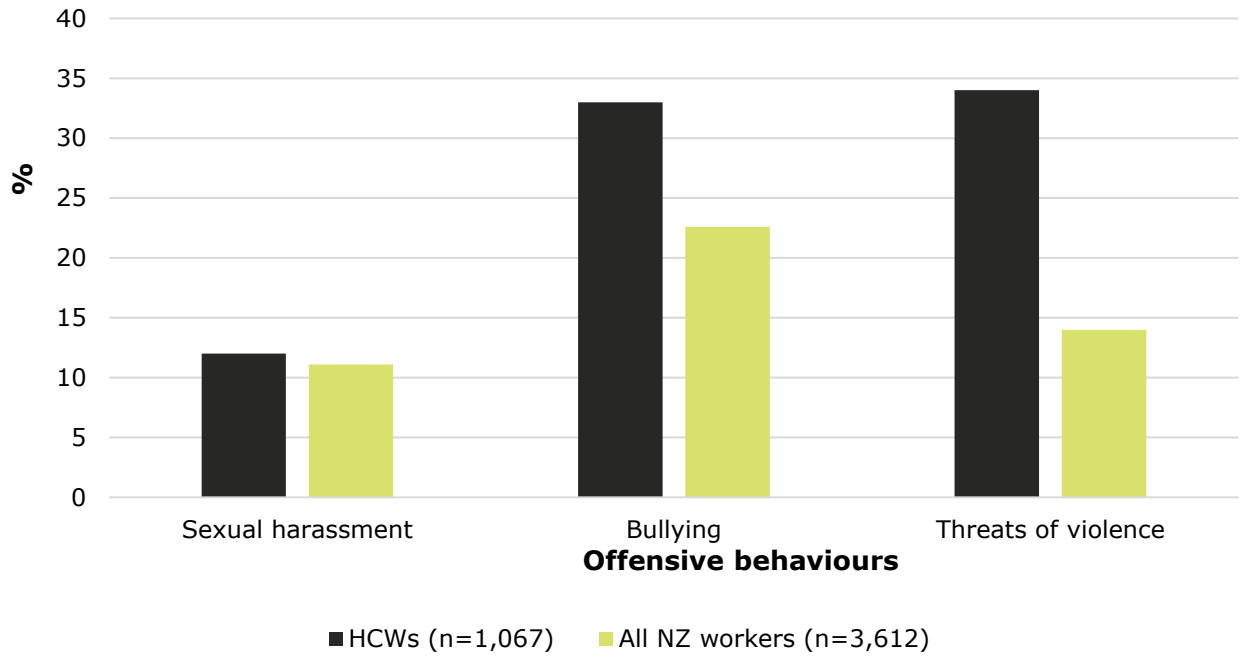


Figure 14: Exposure to offensive behaviours in the last 12 months in healthcare workers and all New Zealand workers

Note: Data for all NZ workers is obtained from the New Zealand Psychosocial Survey 2021 (WorkSafe NZ, 2022).

OFFENSIVE BEHAVIOURS BY WORK SETTING

Those working on an ambulance or at a hospital are more likely to report exposure to Bullying, Sexual Harassment, and Threats of Violence than other healthcare workers (Figure 15).

[6] 'Exposure' could include personal experience of the act happening to oneself or witnessing it occurring between others.

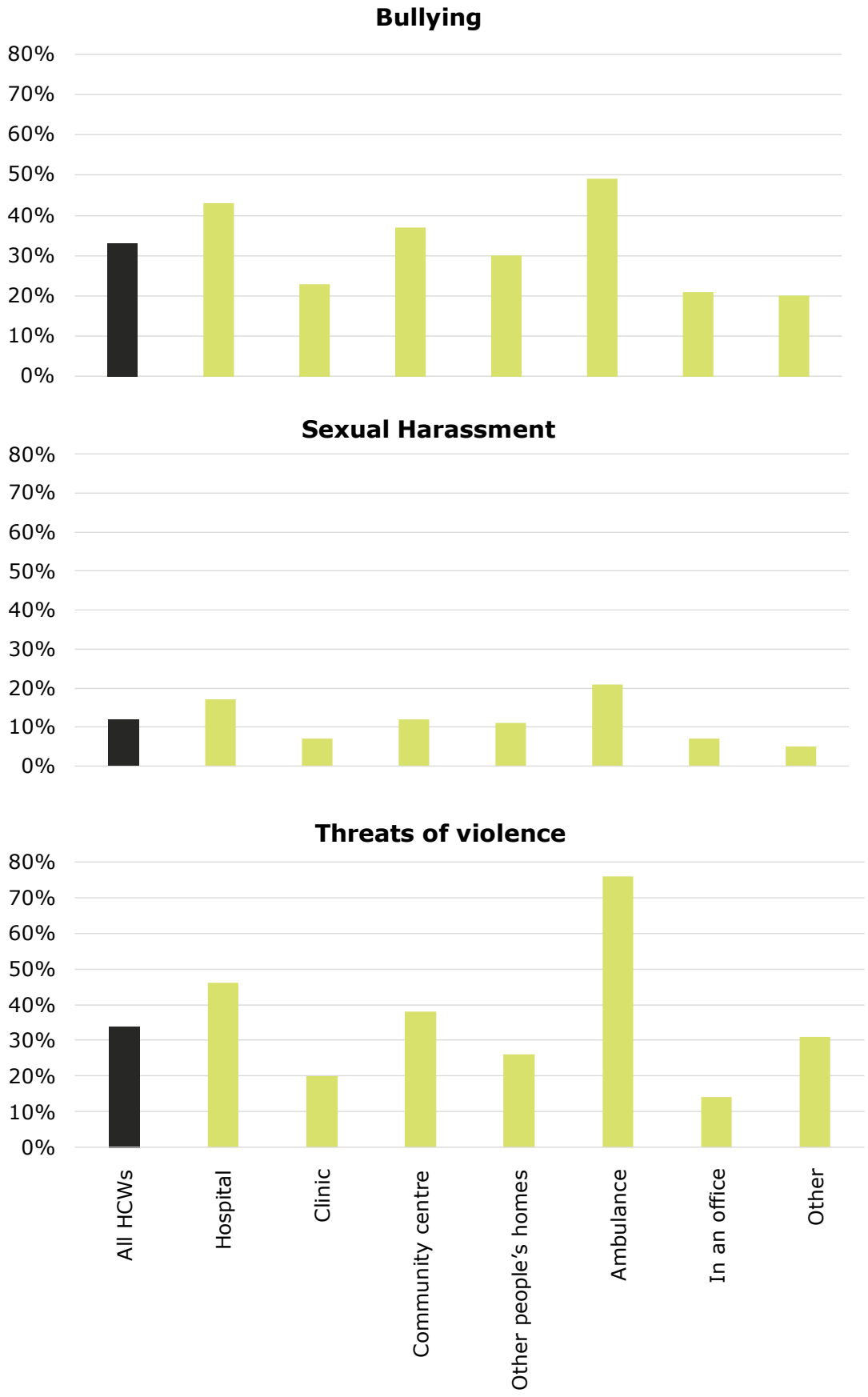


Figure 15: Exposure to offensive behaviours in the last 12 months by work setting

5.1.7. GENERAL HEALTH AND PSYCHOLOGICAL DISTRESS

In this survey, health and psychological distress consist of the following scales:

- Self-rated health (personal assessment of their own health)
- Burnout (physical and emotional exhaustion)
- Stress (problems relaxing)
- Cognitive Stress (problems concentrating).

SELF-RATED HEALTH

Some 75.8% of HCWs rate their health as good and above. However, this proportion is lower than that reported in all NZ workers (80.7%) (Figure 16).

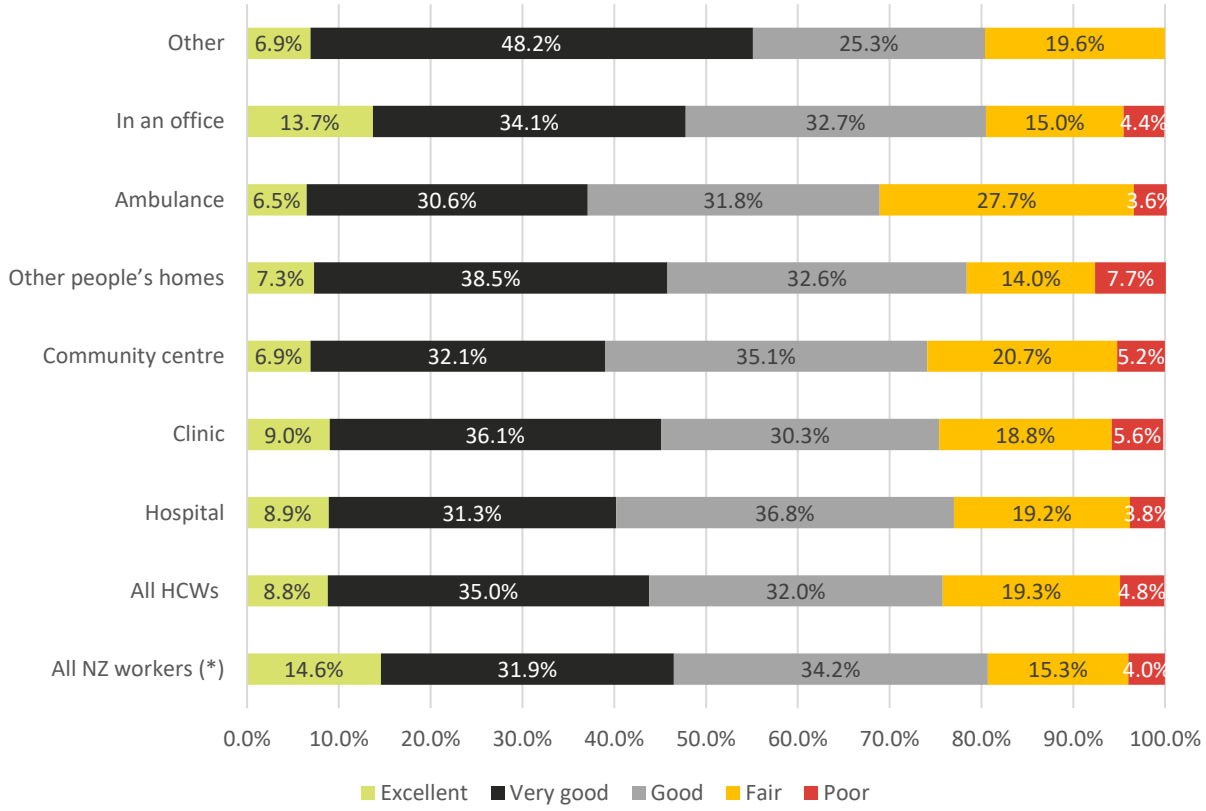


Figure 16: Self-rated Health in all NZ workers, HCWs and health settings.

(*): Data for all NZ workers is obtained from the New Zealand Psychosocial Survey 2021.

PSYCHOLOGICAL DISTRESS

Psychological distress, including Burnout (physical and emotional exhaustion), Stress (problems relaxing), and Cognitive Stress (problems concentrating), is common in HCWs. One in seven (14.0%) HCWs report experience of at least one form of psychological distress all the time. Only 23.3% of workers report not being exposed to any psychological distress.

Physical exhaustion is the most common psychological distress reported by HCWs, occurring from part of the time to all the time (72.5%), followed by Emotional Exhaustion (67.7%), Stress (57.9%), and Cognitive Stress (46.4%) (see Table 1).

Table 1: Self-reported psychological distress

	Physical Exhaustion	Emotional Exhaustion	Stress	Cognitive Stress
All the time	7.4%	7.9%	5.8%	2.6%
A large part of the time	31.9%	29.6%	22.6%	12.7%
Part of the time	33.2%	30.2%	29.4%	31.1%
A small part of the time	21.4%	23.0%	26.4%	36.5%
Not at all	6.1%	9.4%	15.8%	17.1%

When examined by work setting (Figure 17), those working in a hospital are more likely than the average to report the following psychosocial distress occurring from part of the time to all the time at work:

- Physical Exhaustion (80.0% compared to 72.5%)
- Emotional Exhaustion (74.0% compared to 67.7%)
- Stress (64.0% compared to 57.9%).

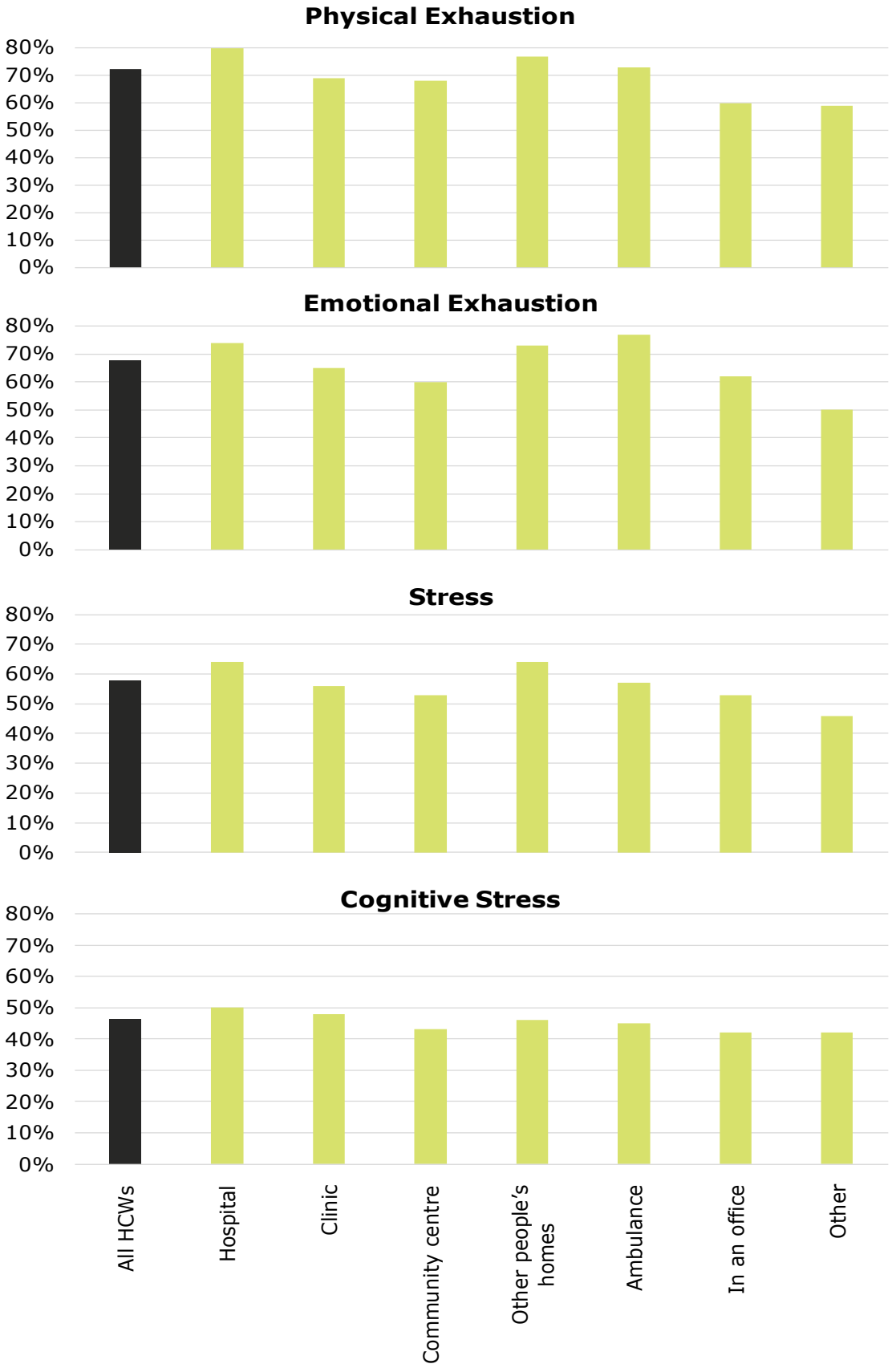


Figure 17: Proportion of self-reported exposure to psychological distress by work setting (%).

Note: Only those reporting exposure to psychological distress part of the time, a large part of the time and all the time are included in this figure.

5.1.8. COPENHAGEN PSYCHOSOCIAL FACTORS BY DEMOGRAPHICS

This section explores psychosocial factors in the healthcare working environment by workers' age, gender, and ethnicity.

Gender

More than 80% of the healthcare workforce are female; therefore, gender is an important factor for examining the sector's psychosocial working environment. Female healthcare workers are more likely to report exposure to sexual harassment than male workers (13.2% compared to 6.4%, respectively) (Figure 18).

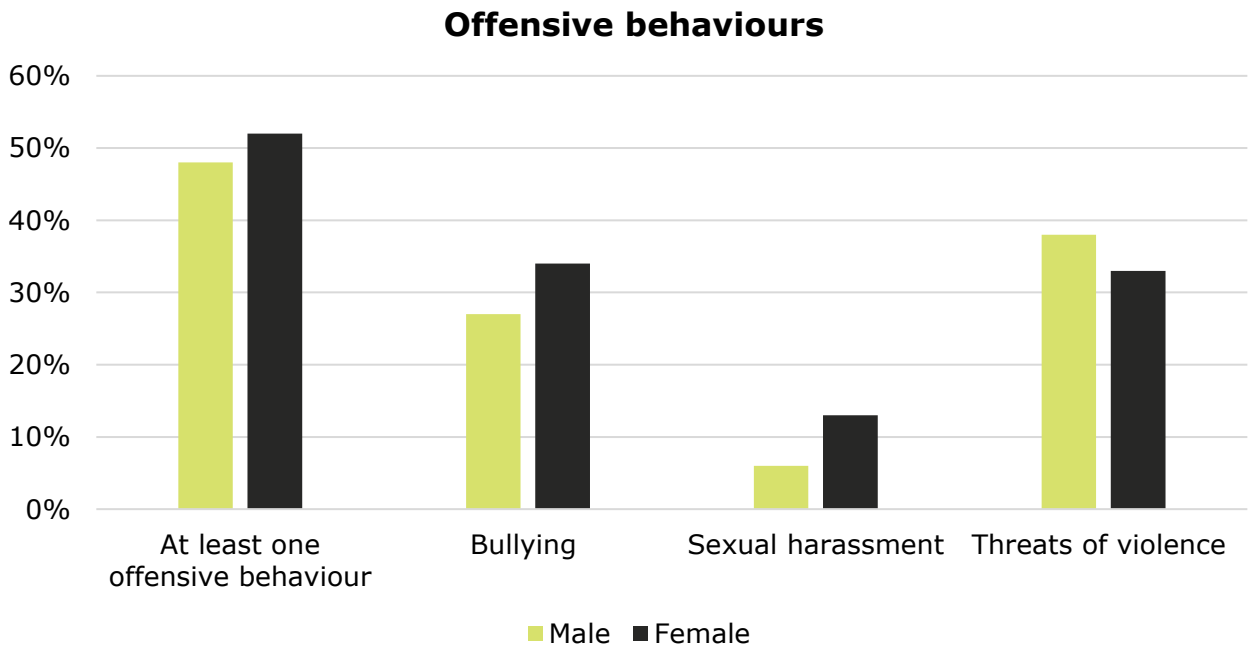


Figure 18: Offensive behaviour by gender

As show in Figure 19, compared to their male colleagues, female healthcare workers report:

- higher Work Pace
- less Influence at Work
- less Possibilities for Development
- less Meaning of Work
- less Predictability.

They also report significantly higher burnout compared to their male colleagues.

On the other hand, male healthcare workers report higher Job Insecurity than the female colleagues.

This analysis highlights the need to consider gender when developing specific psychosocial interventions in the healthcare sector.

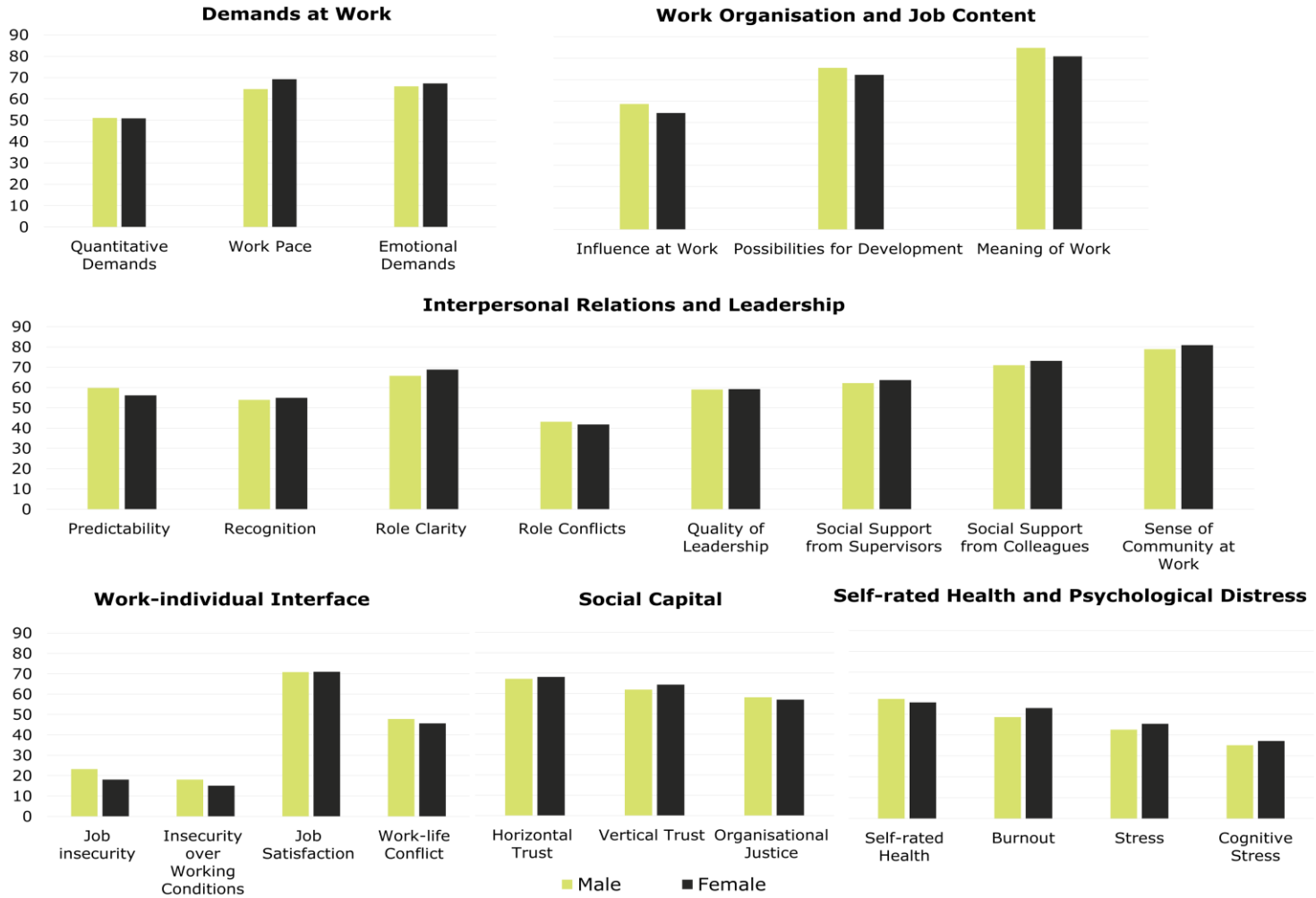


Figure 19: COPSOQ Psychosocial factors by gender

Mean scores are reported.

Age

Self-reported psychosocial factors are significantly different by healthcare workers' age.

As described in Table 2, compared to the average healthcare workers, **young workers under 30 years of age** report:

- higher Work Pace
- lower Role Clarity
- higher Stress
- higher Cognitive Stress.

However, they seem to report higher scores for Possibilities for Development than healthcare workers overall (75.0 compared to 72.7).

Compared to the average healthcare workers, **workers aged 60 years and over** report:

- higher Meaning of Work
- higher Sense of Community at Work
- higher Recognition
- higher Role Clarity
- lower Role Conflicts
- lower Job Insecurity
- lower Insecurity over Working Conditions
- lower Work-life Conflict
- higher Job Satisfaction
- higher Organisational Justice.

They are less likely to report experiencing Burnout and Stress than the overall healthcare workers and all other age groups. Workers aged 60 years and over are also less likely to report exposure to Sexual Harassment and Threats of Violence (7.0% and 25.9% compared to 33.0% and 34.1%, respectively).

Table 2: COPSOQ psychosocial factors by age group

Domain	**Scale**	**All HCWs** (n=1,067)	**Age group**				
			18-29 (n=82)	**30-39** (n=235)	**40-49** (n=242)	**50-59** (n=312)	**60+** (n=196)
Demands at Work	Quantitative Demands	**50.9**	53.9	51.3	53.9	49.5	46.6
	Work Pace	**68.4**	73.9	69.9	69.2	68.7	60.7
	Emotional Demands	**67.0**	72.0	66.4	68.1	67.4	61.9
Work organisation and job content	Influence at Work	**55.2**	55.3	57.3	58.7	51.9	53.0
	Possibilities for Development	**72.8**	77.8	74.5	72.1	70.3	71.3
	Meaning of Work	**81.6**	78.2	81.1	81.3	81.0	85.8
	Predictability	**56.8**	54.0	57.8	57.1	56.7	57.5

Domain	Scale	All HCWs (n=1,067)	Age group				
			18-29 (n=82)	30-39 (n=235)	40-49 (n=242)	50-59 (n=312)	60+ (n=196)
Interpersonal relations and leadership	Recognition	**54.8**	53.5	52.0	54.1	53.8	61.4
	Role Clarity	**68.3**	62.6	67.0	67.3	69.9	73.0
	Role Conflicts	**42.0**	44.8	44.7	44.6	42.0	33.3
	Quality of Leadership	**59.2**	59.2	62.4	58.8	55.8	60.7
	Social Support from Supervisors	**63.4**	63.9	65.2	62.7	60.9	65.5
	Social Support from Colleagues	**72.7**	75.0	72.0	73.1	73.3	70.4
	Sense of Community at Work	**80.5**	79.7	78.4	79.1	81.6	84.0
Work-individual Interface	Job insecurity	**19.0**	15.7	20.9	20.6	20.8	14.7
	Insecurity over Working Conditions	**15.6**	13.7	16.6	15.7	19.2	10.5
	Job Satisfaction	**71.0**	67.3	68.9	69.7	72.2	76.1
	Work-life Conflict	**46.0**	53.9	49.0	47.7	42.9	38.8
Social Capital	Horizontal Trust	**68.0**	70.2	67.8	66.6	66.0	71.2
	Vertical Trust	**63.9**	65.5	63.1	61.0	64.3	67.1
	Organisational Justice	**57.2**	55.4	57.9	55.7	55.8	61.5
Health and Psychosocial Distress	Self-rated Health	**55.9**	55.2	53.3	51.3	59.6	59.9
	Burnout	**52.1**	59.1	57.1	54.2	49.2	42.1
	Stress	**44.1**	53.6	49.6	44.8	42.7	35.4
	Cognitive Stress	**36.8**	41.6	42.0	40.1	32.3	28.9
Offensive behaviours	Bullying	**33.0**	38.9	32.7	33.1	33.0	28.7
	Sexual Harassment	**12.0**	15.5	16.8	12.9	8.8	7.0
	Threats of Violence	**34.1**	36.2	37.8	36.4	33.4	25.9

Mean scores are reported for all scales, except for offensive behaviours where proportions are calculated.
Burnout includes physical and emotional exhaustion.

Ethnicity

When examined by ethnicity (Table 3), NZ European workers report significantly higher scores for Demands at Work than Pacific workers (52.4 compared to 46.3).

Māori and Asian workers report significantly higher scores for Influence at Work than NZ European workers (61.1 and 61.6 compared to 54.3, respectively).

Asian workers are less likely to report exposure to Sexual Harassment than their NZ European, Māori, and Pacific colleagues (6.3% compared to 13.1% and 16.9%, respectively). However, they report the lowest scores for Social Support from Supervisors (63.4), Social Support from Colleagues (69.6), and Sense of Community at Work (78.6).

Table 3: COPSOQ Psychosocial factors by ethnic group

Domain	Scale	All HCWs (n=1,067)	Ethnicity				
			NZ European (n=801)	Māori (n=88)	Pacific Peoples (n=30)	Asian (n=150)	Other ethnicities (n=189)
Demands at Work	Quantitative Demands	**50.9**	52.4	54.6	46.3	45.5	44.7
	Work Pace	**68.4**	69.1	67.3	58.8	69.0	65.9
	Emotional Demands	**67.0**	68.9	69.2	59.2	63.1	63.5
Work organisation and job content	Influence at Work	**55.2**	54.3	61.1	53.0	61.6	55.9
	Possibilities for Development	**72.8**	72.1	73.6	72.7	74.8	76.6
	Meaning of Work	**81.6**	80.8	83.5	82.9	82.2	85.4
Interpersonal relations and leadership	Predictability	**56.8**	55.7	57.7	64.5	61.6	59.5
	Recognition	**54.8**	54.2	57.7	63.0	54.9	54.4
	Role Clarity	**68.3**	68.2	68.0	76.1	68.7	68.7
	Role Conflicts	**42.0**	41.4	47.5	47.4	42.8	41.7
	Quality of Leadership	**59.2**	58.8	64.1	60.7	58.8	60.5
	Social Support from Supervisors	**63.4**	63.5	64.6	65.3	63.4	66.0
	Social Support from Colleagues	**72.7**	73.2	75.8	72.5	69.6	74.3
	Sense of Community at Work	**80.5**	80.9	80.8	82.0	78.6	81.4
Work-individual Interface	Job insecurity	**19.0**	17.1	18.8	27.8	26.6	19.2
	Insecurity over Working Conditions	**15.6**	14.1	16.1	24.0	20.3	17.9
	Job Satisfaction	**71.0**	71.0	72.7	75.1	68.1	71.3
	Work-life Conflict	**46.0**	45.7	47.1	40.6	51.0	44.3
Social Capital	Horizontal Trust	**68.0**	68.4	70.4	65.4	65.0	67.3
	Vertical Trust	**63.9**	63.6	63.6	67.5	64.0	64.3
	Organisational Justice	**57.2**	57.5	53.9	58.1	56.3	57.2
Health and Psychosocial Distress	Self-rated Health	**55.9**	56.2	54.1	57.1	53.7	57.1
	Burnout	**52.1**	52.1	56.5	48.2	53.8	51.9
	Stress	**44.1**	45.4	44.8	42.6	46.6	42.0
	Cognitive Stress	**36.8**	37.3	38.0	33.3	36.2	33.8
Offensive behaviours	Bullying	**33.0**	33.2	40.3	27.3	33.6	28.3
	Sexual Harassment	**12.0**	13.1	16.9	16.9	6.3	6.7
	Threats of Violence	**34.1**	33.4	41.5	45.4	31.4	30.5

Mean scores are reported for all scales, except for offensive behaviours where proportions are calculated.
Workers can identify with multiple ethnicities.
Burnout includes physical and emotional exhaustion.

5.1.9. COPENHAGEN PSYCHOSOCIAL FACTORS BY ORGANISATIONAL/OCCUPATIONAL CHARACTERISTICS

This section explores psychosocial factors in the healthcare working environment by organisational/occupational factors including organisation size, length in the industry and workers' occupation.

Organisation size

As shown in Table 4, compared to the average, healthcare workers in large organisations with more than 100 employees report:

- higher Work Pace
- higher Role Conflicts
- higher Insecurity over Working Conditions
- lower Predictability
- lower Recognition
- lower Role Clarity
- lower Horizontal Trust
- lower Vertical Trust
- lower Organisational Justice.

They are more likely to report exposure to bullying (40.8%), sexual harassment (16.1%), and threats of violence (42.7%) than the average healthcare worker. Please note that three quarters of large organisations with more than 100 employees are hospitals.

Healthcare workers in organisations with five or less employees appear to rate their general health better and face lower risk from burnout and stress than the average. There are also some other notable findings. Healthcare workers in organisations with 20 to 49 employees report the lowest score for Influence at Work (49.8). Those working in organisations with one to five workers report the lowest score for Possibilities for Development (68.3), and those in business with six to nine workers report the lowest score for Meaning of Work (76.7).

Table 4: COPSOQ psychosocial factors by organisation size

Domain	**Scale**	**All HCWs** (n=1,067)	**Organisation size (by number of employees)**						
			Self-employed (n=34)	**1 to 5** (n=88)	**6 to 9** (n=30)	**10 to 19** (n=150)	**20 to 49** (n=189)	**50 to 99** (n=81)	**100 +** (n=505)
Demands at Work	Quantitative Demands	**50.9**	47.4	46.0	46.5	51.9	56.1	47.5	52.1
	Work Pace	**68.4**	50.8	60.1	66.2	64.2	72.4	64.3	72.0
	Emotional Demands	**67.0**	72.2	62.5	65.1	65.3	68.8	63.1	68.8
Work organisation and job content	Influence at Work	**55.2**	83.2	60.2	58.1	53.6	49.8	59.5	53.8
	Possibilities for Development	**72.8**	85.2	68.3	73.8	71.0	71.5	72.6	73.6

Domain	Scale	All HCWs (n=1,067)	Organisation size (by number of employees)						
			Self-employed (n=34)	1 to 5 (n=88)	6 to 9 (n=30)	10 to 19 (n=150)	20 to 49 (n=189)	50 to 99 (n=81)	100 + (n=505)
	Meaning of Work	**81.6**	93.2	77.7	76.7	79.1	82.8	83.4	82.1
Interpersonal relations and leadership	Predictability	**56.8**	73.9	63.2	60.3	60.0	55.3	59.0	53.6
	Recognition	**54.8**	72.3	66.6	60.5	66.4	55.3	59.2	47.4
	Role Clarity	**68.3**	79.7	72.8	67.2	69.7	68.6	66.6	66.9
	Role Conflicts	**42.0**	20.6	32.5	35.0	36.4	45.4	40.3	46.5
	Quality of Leadership	**59.2**	77.1	57.9	58.4	60.3	55.7	62.5	59.1
	Social Support from Supervisors	**63.4**	75.3	68.8	67.3	69.3	59.6	68.5	60.7
	Social Support from Colleagues	**72.7**	62.7	68.2	70.6	72.4	72.4	72.3	74.3
	Sense of Community at Work	**80.5**	80.2	84.1	78.9	81.2	82.4	78.4	80.2
Work-individual Interface	Job insecurity	**19.0**	12.1	27.1	21.6	18.2	16.9	17.5	18.1
	Insecurity over Working Conditions	**15.6**	1.4	8.0	14.3	8.6	11.9	13.7	20.1
	Job Satisfaction	**71.0**	82.2	74.1	68.6	76.0	69.4	73.5	69.2
	Work-life Conflict	**46.0**	40.7	35.9	44.8	39.9	48.5	42.2	49.6
Social Capital	Horizontal Trust	**68.0**	72.5	77.2	71.2	72.8	68.7	66.5	65.2
	Vertical Trust	**63.9**	76.0	75.0	67.7	70.8	66.1	66.7	58.2
	Organisational Justice	**57.2**	74.3	68.1	59.2	64.1	56.1	55.8	53.3
Health and Psychosocial Distress	Self-rated Health	**55.9**	64.2	64.0	53.8	60.1	50.8	50.7	55.9
	Burnout	**52.1**	42.9	46.4	52.0	47.7	53.4	52.2	54.2
	Stress	**44.1**	39.7	40.7	48.2	41.9	43.5	46.5	46.1
	Cognitive Stress	**36.8**	33.5	32.6	37.9	34.5	37.1	36.2	37.9
Offensive behaviours	Bullying	**33.0**	23.9	22.8	19.9	21.2	25.6	35.7	40.8
	Sexual Harassment	**12.0**	18.9	6.4	8.4	3.0	7.2	10.3	16.1
	Threats of Violence	**34.1**	8.4	20.7	21.6	21.2	33.9	29.6	42.7

Mean scores are reported for all scales, except for offensive behaviours where proportions are calculated.
Burnout includes physical and emotional exhaustion.

Length in the healthcare industry

Workers who have been in the sector for more than ten years report the highest scores for Influence at Work (56.5) and Meaning of Work (83.0), while those in the industry between one to three years report the highest scores for Possibilities for Development (75.0).

Workers in the sector between four to nine years report the highest score for Role Conflict (44.9) and lowest scores for Predictability (53.9), Recognition (52.3), Role Clarity (65.7), and Quality of Leadership (57.5).

Healthcare workers in the sector between four to nine years appear to be exposed to bullying more than the average (42.1% compared to 33.0%). Those in the healthcare industry between one to three years report a significantly higher proportion of sexual harassment than the overall HCWs (18.6% compared to 12.0%).

Table 5: COPSOQ psychosocial factors by length in the industry

Domain	Scale	All HCWs (n=1,067)	Length in the industry			
			Less than a year (n=21) *	1-3 years (n=92)	4-9 years (n=255)	More than 10 years (n=699)
Demands at Work	Quantitative Demands	**50.9**	36.8	52.5	50.8	51.2
	Work Pace	**68.4**	55.3	68.8	70.1	68.0
	Emotional Demands	**67.0**	45.9	61.5	69.0	67.8
Work Organisation and Job Content	Influence at Work	**55.2**	42.9	54.8	53.4	56.5
	Possibilities for Development	**72.8**	71.7	75.0	71.9	72.8
	Meaning of Work	**81.6**	79.3	82.0	78.4	83.0
Interpersonal Relations and Leadership	Predictability	**56.8**	63.9	58.4	53.9	57.6
	Recognition	**54.8**	67.4	55.7	52.3	55.3
	Role Clarity	**68.3**	72.0	67.7	65.7	69.4
	Role Conflicts	**42.0**	31.5	42.6	44.9	41.0
	Quality of Leadership	**59.2**	64.4	62.0	57.5	59.3
	Social Support from Supervisors	**63.4**	69.6	67.7	60.8	63.6
	Social Support from Colleagues	**72.7**	81.1	71.9	73.4	72.3
	Sense of Community at Work	**80.5**	84.1	81.0	77.3	81.8
Work-individual Interface	Job insecurity	**19.0**	20.1	24.5	20.9	17.2
	Insecurity over Working Conditions	**15.6**	13.8	16.6	15.8	15.4
	Job Satisfaction	**71.0**	80.8	73.5	66.5	72.2
	Work-life Conflict	**46.0**	29.4	45.6	50.1	44.8
Social Capital	Horizontal Trust	**68.0**	74.3	68.7	67.5	67.9
	Vertical Trust	**63.9**	78.5	67.2	62.2	63.7
	Organisational Justice	**57.2**	68.2	58.1	55.2	57.6
Health and Psychosocial Distress	Self-rated Health	**55.9**	51.1	54.2	54.8	56.9
	Burnout	**52.1**	41.9	53.7	56.9	49.9
	Stress	**44.1**	35.5	47.7	50.2	42.3
	Cognitive Stress	**36.8**	36.4	40.3	40.2	34.6
Offensive behaviours	Bullying	**33.0**	19.4	33.8	42.1	29.2
	Sexual Harassment	**12.0**	5.0	18.6	14.9	9.8
	Threats of Violence	**34.1**	19.8	35.4	38.1	32.5

Mean score is reported for all scales, except for offensive behaviours where proportions are calculated.
Burnout includes physical and emotional exhaustion.
(*) Results are indicative only because of a small sample.

Workers' occupation

There are significant differences in psychosocial factors in healthcare working environment by workers' occupation.

As described in Table 6, compared to the average, people in managerial roles report higher Job Satisfaction (78.6) and lower Work-life Conflict (34.3) scores.

When viewed by occupation, managers in healthcare sector report:

- higher Quantitative Demands than community and personal service workers
- lower Work Pace and Emotional Demands than professionals, technicians and trades, and community and personal service workers
- higher Predictability than clerical and administrative workers
- higher Recognition than professionals, technicians and trades, community and personal service workers, and clerical and administrative workers
- lower Role Clarity than professionals
- higher Quality of Leadership than professionals and clerical and administrative workers.

Those in managerial roles report the highest scores for Influence at Work (65.6), while workers in professional positions are most likely to report high scores for Possibilities for Development and Meaning of Work (77.5 and 85.8, respectively).

Compared to the average, community and personal service workers are more likely to report exposure to bullying and threats of violence (43.8% and 44.6% compared to 33.0% and 34.1%, respectively). They are also more likely than managers, professionals, technicians and trades and clerical and administrative workers to report exposure to either of these two hostile acts.

Managers are less likely than the average to be exposed to threats of violence (15.3% compared to 34.1%). They report significantly lower scores for burnout than the average (40.3 compared to 52.1).

Table 6: COPSOQ psychosocial factors by workers' occupation

Domain	Scale	All HCWs (n=1,067)	Occupation					
			Manager (n=58)	Professionals (n=712)	Technical and Trades (n=35)	Community and personal service workers (n=151)	Clerical and administrative workers (n=101)	Other* (n=8)
Demands at Work	Quantitative Demands	**50.9**	53.8	52.5	50.5	44.1	49.3	42.9
	Work Pace	**68.4**	57.2	69.9	75.7	65.7	66.4	57.0
	Emotional Demands	**67.0**	49.1	72.8	55.7	60.5	52.6	29.4
Work Organisation and Job Content	Influence at Work	**55.2**	65.6	59.3	43.7	43.4	44.7	32.5
	Possibilities for Development	**72.8**	69.0	77.5	68.0	64.7	56.8	57.8
	Meaning of Work	**81.6**	78.1	85.8	70.8	76.6	66.0	68.3
Interpersonal Relations and leadership	Predictability	**56.8**	61.6	57.2	57.3	55.2	54.5	47.0
	Recognition	**54.8**	65.6	54.0	53.0	55.2	54.1	59.0
	Role Clarity	**68.3**	61.9	69.6	64.1	67.9	64.7	67.0

Domain	Scale	All HCWs (n=1,067)	Occupation					
			Manager (n=58)	Professionals (n=712)	Technical and Trades (n=35)	Community and personal service workers (n=151)	Clerical and administrative workers (n=101)	Other* (n=8)
	Role Conflicts	**42.0**	39.2	42.9	37.6	43.2	37.9	34.7
	Quality of Leadership	**59.2**	65.7	58.8	55.7	61.2	55.3	79.0
	Social Support from Supervisors	**63.4**	66.5	63.1	75.5	62.2	61.1	73.3
	Social Support from Colleagues	**72.7**	67.8	74.3	80.7	73.3	60.4	71.6
	Sense of Community at Work	**80.5**	85.1	80.7	80.4	78.7	79.3	83.8
Work-individual Interface	Job insecurity	**19.0**	23.2	14.6	20.0	31.2	29.7	12.7
	Insecurity over Working Conditions	**15.6**	13.8	14.6	8.1	24.0	13.5	20.1
	Job Satisfaction	**71.0**	78.6	70.2	65.6	72.7	70.6	85.2
	Work-life Conflict	**46.0**	34.3	49.7	38.1	41.4	37.7	25.9
Social Capital	Horizontal Trust	**68.0**	71.5	68.5	64.7	66.9	65.8	62.7
	Vertical Trust	**63.9**	68.3	62.8	62.8	66.3	66.3	69.6
	Organisational Justice	**57.2**	62.5	56.5	56.0	57.1	59.2	66.2
Health and Psychosocial Distress	Self-rated Health	**55.9**	59.9	55.8	46.3	56.9	55.8	64.4
	Burnout	**52.1**	40.3	54.1	53.6	51.0	46.7	32.2
	Stress	**44.1**	36.8	46.2	45.7	42.4	44.1	32.8
	Cognitive Stress	**36.8**	30.4	37.9	39.8	36.0	32.8	34.7
Offensive behaviours	Bullying	**33.0**	24.7	33.1	15.5	43.8	28.5	-
	Sexual Harassment	**12.0**	10.9	12.6	13.5	16.7	2.0	-
	Threats of Violence	**34.1**	15.3	35.8	24.5	44.6	21.7	-

(*) Results are indicative only because of a small sample. 'Other' includes sale workers, machinery operators and drivers, labourers, and residual categories.
Mean scores are reported for all scales, except for offensive behaviours where proportions are calculated.
Burnout includes physical and emotional exhaustion.
(-) Not applicable.

5.2. Psychosocial Safety Climate in the healthcare industry

Psychosocial Safety Climate (PSC) is "the shared belief held by workers that their psychosocial safety and wellbeing is protected and supported by senior management". The PSC consists of 12 items (PSC-12) in four domains: management commitment, management priority, organisation communication and organisational participation. The PSC is conceived as an upstream resource concerning senior management values and attitudes toward care and practices with employee psychosocial wellbeing. PSC score ranges from 12 (highest risk) to 60 (lowest risk). It is considered an upstream organisational measure that is strongly associated with senior management. It could be used as a predictor of psychological distress and work engagement (Dollard & Bakker, 2010).
Below are the four domains of PSC:

- Management commitment (senior management support and commitment for stress prevention through involvement and commitment).
- Management prioritisation (management priority to psychological health and safety versus productivity goals).
- Organisational communication (organisational communication, that is, the organisation listens to contributions from employees).
- Organisational participation (organisational participation and involvement, for example, participation and consultation occurs with unions, and occupational health and safety representatives) (Hall et al., 2010)

The overall PSC mean score in the New Zealand healthcare sector is 37.0 (SD=11.0), which is lower than the overall PSC mean score for all NZ workers (M=39.7, SD=11.8) (Forsyth et al., 2021). Further work is needed to understand what is driving a lower PSC score in the healthcare industry in New Zealand.

Table 7: Psychosocial safety climate subscales and overall scale in healthcare workers and all New Zealand workers

Domain	Minimum possible score	Maximum possible score	Healthcare workers (n=1,067)		All NZ workers (n=2,029)	
			M	SD	M	SD
Management commitment	3	15	9.5	3.2	9.9	3.4
Management priority	3	15	9.1	3.4	9.9	3.3
Organisation communication	3	15	9.3	2.8	10.0	2.9
Organisational participation	3	15	9.2	2.8	9.9	3.0
Overall psychosocial safety climate	12	60	37.0	11.0	39.7	11.8

Note: Results for all NZ workers are obtained from the 2021 New Zealand Workplace Barometer Report (Forsyth et al., 2021).
M- Mean; SD- Standard Deviation

An overall PSC score of 41 and over indicates a lower risk of adverse psychosocial outcomes. In our survey, only four in ten (39.3%) HCWs report an overall PSC score greater than or equal to 41 (Figure 20). This proportion is significantly lower than that reported by NZ workers overall (52.2%). On the other hand, approximately half of the HCWs report an overall PSC score of 37 or below, suggesting a high risk of negative psychological and physical outcomes. This proportion is significantly higher than that reported among all NZ workers (39.5%) (Forsyth et al., 2021).

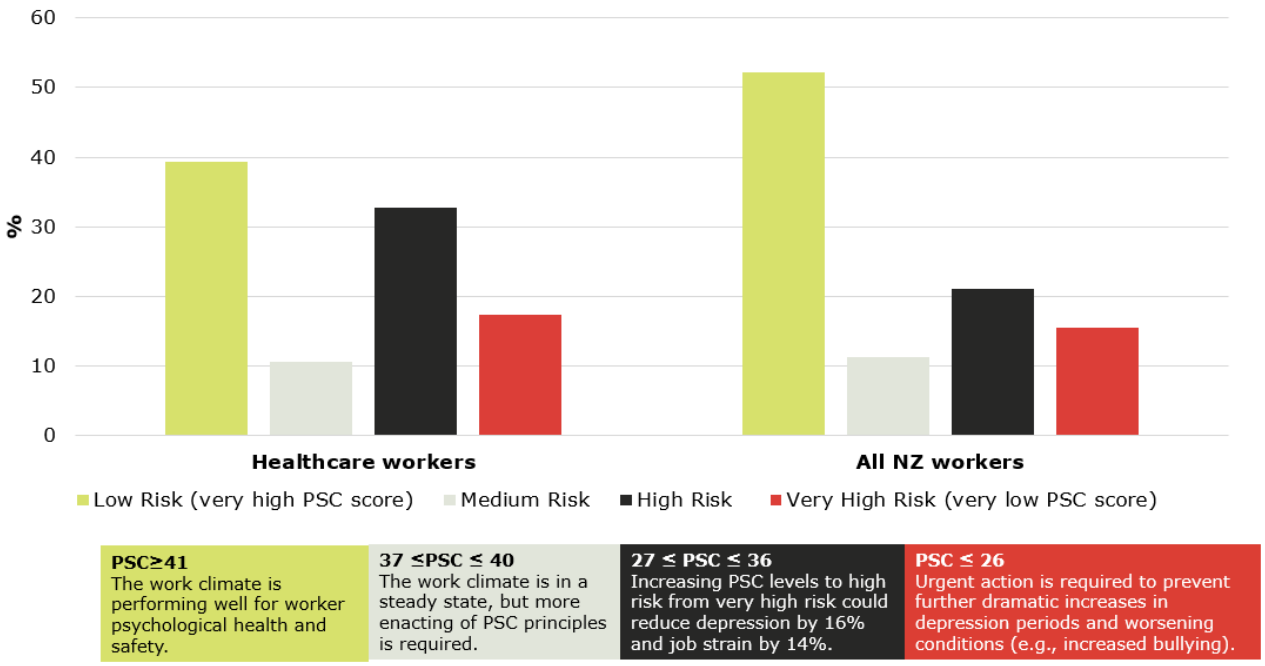


Figure 20: Overall Psychosocial Safety Climate (PSC) in healthcare workers and all New Zealand workers

Note: Data for all workers was extracted from the 2021 New Zealand Workplace Barometer.

PSYCHOSOCIAL SAFETY CLIMATE BY WORK SETTING

When examined by work settings (Figure 21), HCWs who work in a hospital report significantly lower overall PSC score than those working in other healthcare settings, suggesting greater exposure to psychosocial risks for these workers. People working in office and clinic settings report a significantly higher overall PSC score than those working in hospitals, community centres and ambulances, indicating a lower risk of experiencing adverse psychosocial outcomes.

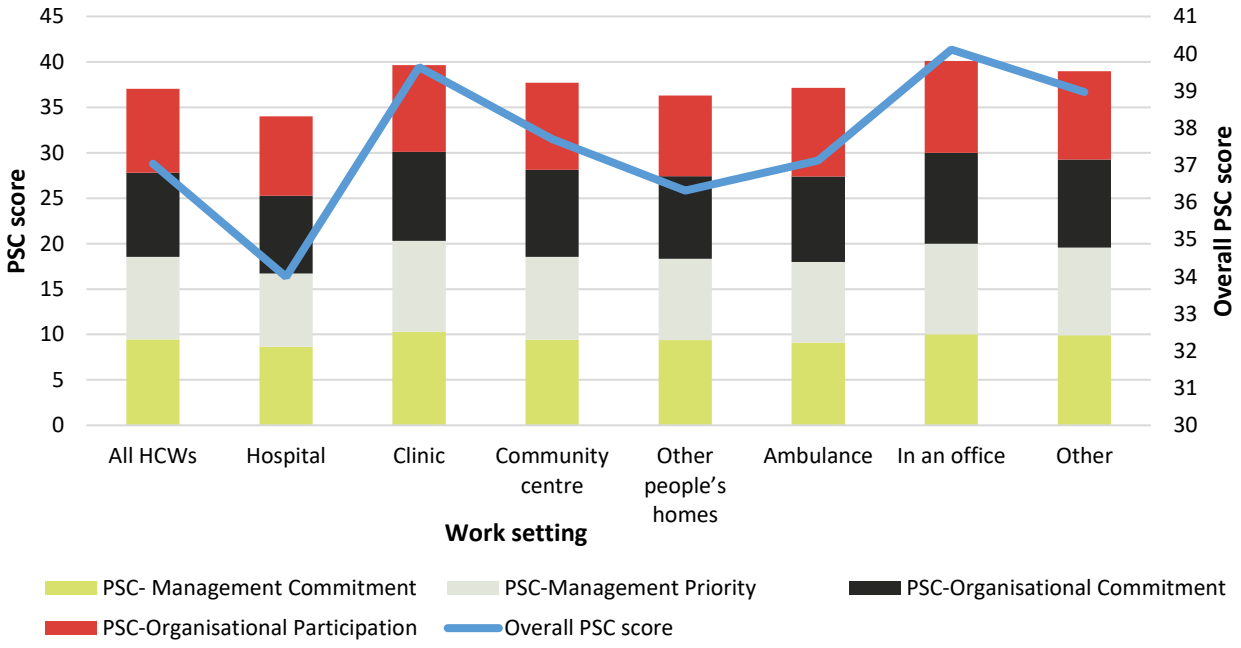


Figure 21: Psychosocial Safety Climate (PSC) mean score by work setting

PSYCHOSOCIAL SAFETY CLIMATE BY DEMOGRAPHICS

As seen in Table 8, young workers under 29 years of age report less favourable PSC than workers aged 60 years and over (35.1 compared to 38.3, respectively). Regarding ethnicity, NZ European workers report a lower overall PSC than Pacific workers (36.8 compared to 40.6).

Table 8: Psychosocial Safety Climate mean score by demographics

		Base (N=)	Management Commitment	Management Priority	Organisational Commitment	Organisational Participation	Overall PSC
All HCWs		**1,067**	**9.5**	**9.1**	**9.3**	**9.2**	**37.0**
Gender	Men	209	9.4	9.1	9.2	9.3	37.0
	Women	858	9.5	9.1	9.3	9.2	37.1
Age	18 - 29	82	9.0	8.5	8.8	8.8	35.1
	30 - 39	235	9.5	9.1	9.1	9.1	36.8
	40 - 49	242	9.4	8.9	9.2	9.3	36.8
	50 - 59	312	9.5	9.2	9.5	9.4	37.6
	60+	196	9.8	9.5	9.5	9.6	38.3
Ethnicity	NZ European	801	9.4	9.0	9.2	9.2	36.8
	Māori	88	9.5	9.6	9.5	9.5	38.1
	Pacific	30	10.1	10.3	10.0	10.2	40.6
	Asian	150	9.5	9.3	9.2	9.2	37.1
	Other ethnicities	189	9.7	9.4	9.6	9.6	38.4

Note: Workers can identify with multiple ethnicities.

PSYCHOSOCIAL SAFETY CLIMATE BY ORGANISATIONAL/OCCUPATIONAL CHARACTERISTICS

The overall PSC scores vary markedly by organisational characteristics (Table 9). Lower PSC is associated with organisation size. Those working in large organisations (more than 100 workers) report a significantly lower PSC score than those working in businesses with less than 20 employees. Organisations employing over 100 workers report the lowest PSC score of 34.6, suggesting a high risk of depression and job strain.

Healthcare workers who have been in the industry between four and nine years report the least favourable PSC (35.3), suggesting a higher risk of depression and job strain.

In the healthcare sector, those in managerial roles report significantly a higher PSC mean score (42.4) than people working as professionals, technicians and trades, and community and personal service workers. Professionals report the lowest PSC mean score, with 35.9.

Table 9: Psychosocial Safety Climate mean score by organisational/occupational characteristics

		Base (N=)	Management Commitment	Management Priority	Organisational Commitment	Organisational Participation	Overall PSC
All HCWs		**1,067**	**9.5**	**9.1**	**9.3**	**9.2**	**37.0**
Organisation size	Self-employed	34	10.9	11.0	10.5	10.3	42.8
	1 to 5	89	10.6	10.3	10.2	9.8	40.9
	6 to 9	74	10.3	10.1	9.7	9.5	39.5
	10 to 19	113	10.9	10.6	10.2	10.0	41.6
	20 to 49	129	9.9	9.2	9.4	9.2	37.7
	50 to 99	81	9.3	9.3	9.1	9.4	37.1
	100+	505	8.7	8.2	8.8	8.9	34.6
Length in the industry	Less than a year**	21	11.4	10.9	10.1	11.2	43.6
	1 - 3 years	92	10.0	9.4	9.3	9.3	38.0
	4 - 9 years	255	9.0	8.7	8.8	8.8	35.3
	More than 10 years	699	9.5	9.2	9.4	9.3	37.4
Occupation	Managers	58	10.8	10.5	10.8	10.3	42.4
	Professionals	712	9.1	8.7	9.0	9.0	35.9
	Technicians and trades	35	9.7	9.3	9.6	8.8	37.5
	Community and personal service workers	151	9.9	9.5	9.4	9.5	38.4
	Clerical and administrative workers	101	10.3	10.0	9.8	9.8	39.8
	Other*	8	11.5	10.2	10.5	10.4	42.7

(*) Results are indicative only because of a small sample. 'Other' includes sale workers, machinery operators and drivers, labourers, and residual categories.
(**) Results are indicative only because of a small sample.

5.3. Workers' wellbeing in the healthcare industry

In this study, workers' wellbeing and quality of life is explored through the World Health Organization's five-item Wellbeing Index (WHO-5).

The WHO-5 includes five statements on how workers feel within the last 14 days. Each statement score ranges from 0 (At no time) to 5 (All of the time). The total WHO-5 percentage score ranges from 0 (worst possible quality of life) to 100 (best possible quality of life). The mean score for WHO-5 for healthcare workers is 50.6 (SD=20.9). Less than half of HCWs (47.1%) report a total wellbeing score of 50 and below, the cut-off point for poor wellbeing. About 11.1% of HCWs report a total wellbeing score of 20 and below, suggesting a higher risk of clinical levels of depression (Topp et al., 2014).

WORKERS' WELLBEING BY WORK SETTING

When examined by work setting, those working in a hospital report the lowest mean score for wellbeing (47.2). The reported wellbeing score for those working in the hospital is lower than that for HCWs overall and those working in clinic or office settings (Figure 22).

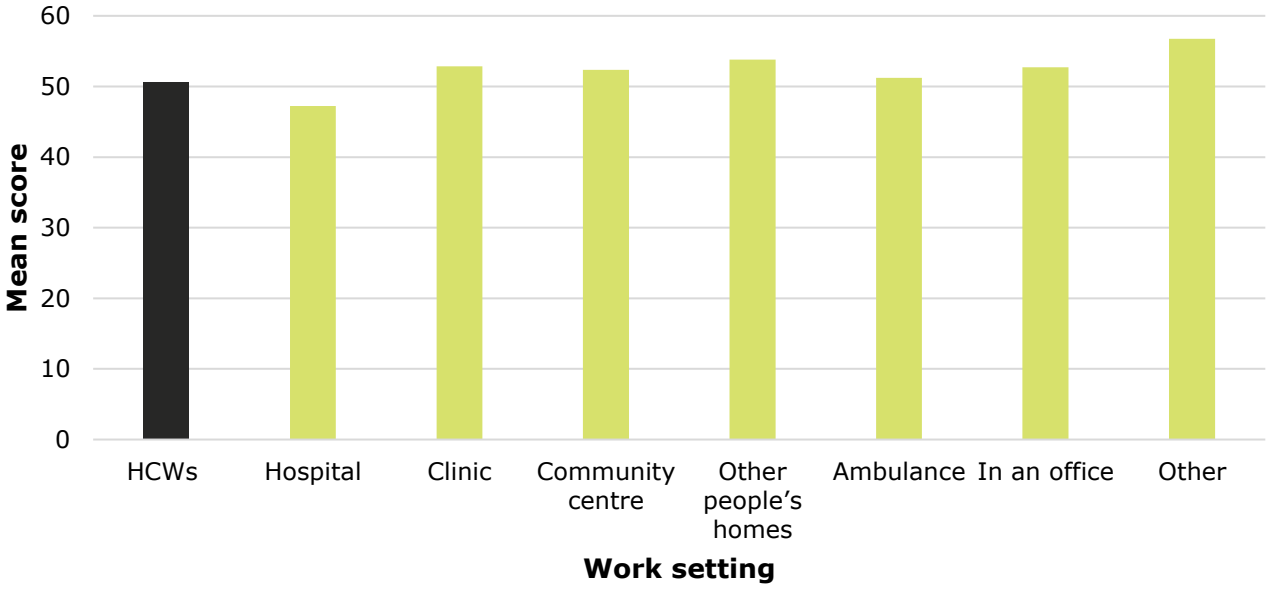


Figure 22: Workers' wellbeing by work setting

WORKERS' WELLBEING BY DEMOGRAPHICS

As seen in Table 10, workers aged 60 years and over report a significantly higher wellbeing score (55.9) than any other age group. Further, only 36.3% of HCWs in this age group report a wellbeing score of 50 and below, the cut-off point for poor wellbeing. The proportion is much lower than the average (47.1%). These findings suggest that older workers may face less risk of depression than HCWs overall.

About one in nine (11.1%) healthcare workers report a wellbeing score of 20 and below, indicating a higher risk of clinical levels of depression. The proportion of Asian workers reporting an overall wellbeing score of 20 and below is significantly higher than the average (16.9% compared to 11.1%).

Table 10: Workers' wellbeing by demographics

		Base (N=)	WHO-5 Mean score	Screening level (%)		
				WHO-5>50	WHO-5 <=50	WHO-5<=20
All HCWs		**1,067**	**50.6**	**52.9**	**47.1**	**11.1**
Gender	Men	209	51.8	54.0	11.9	7.5
	Women	858	50.3	52.7	9.7	11.9
Age	18 - 29	82	48.7	47.4	10.7	9.7
	30 - 39	235	48.9	49.0	14.6	10.7
	40 - 49	242	47.6	47.0	11.1	14.6
	50 - 59	312	51.8	56.8	8.3	11.1
	60+	196	55.9	63.7	10.2	8.3
Ethnicity	NZ European	801	50.2	52.5	7.0	10.2
	Māori	88	52.7	58.3	6.2	7.0
	Pacific	30	54.8	58.1	16.9	6.2
	Asian	150	49.3	53.4	10.7	16.9
	Other ethnicities	189	52.2	52.1	7.5	10.7

Note: Workers can identify with multiple ethnicities.

WORKERS' WELLBEING BY ORGANISATIONAL/OCCUPATIONAL CHARACTERISTICS

As shown in Table 11, better wellbeing is reported by HCWs who:

- work in organisations with less than five employees
- have been in the sector for less than a year.

When exploring WHO-5 wellbeing by the cut-off point of 50, workers in a business with five or less employees and those who have been in the sector less than a year are 1.2 to 1.5 times more likely to report a mean score of wellbeing over 50 (indicating better wellbeing) compared to healthcare workers overall.

The proportion of reported wellbeing score of 20 and below is significantly higher in organisation with six to nine employees than the average (18.0% compared to 11.1%).

Table 11: Workers' wellbeing by occupational characteristics

		Base (N=)	WHO-5 Mean score	Screening level (%)		
				WHO-5>50	WHO-5 <=50	WHO-5 <=20
All HCWs		**1,067**	**50.6**	**52.9**	**47.1**	**11.1**
Organisation size	Self-employed	34	60.7	73.4	26.6	6.6
	1 to 5	89	55.0	61.1	38.9	8.5
	6 to 9	74	50.8	58.5	41.5	18.0
	10 to 19	113	50.8	54.7	45.3	10.0
	20 to 49	129	49.7	50.0	50.0	8.4
	50 to 99	81	52.1	59.3	40.7	4.7
	100+	505	49.5	50.0	50.0	12.0
Length in the industry	Less than a year **	21	60.2	78.4	21.6	20.9
	1 - 3 years	92	48.9	51.1	48.9	7.5
	4 - 9 years	255	49.3	46.7	53.3	15.0
	More than 10 years	699	51.1	55.2	44.8	8.8
Occupation	Managers	58	53.4	57.0	43.0	3.5
	Professionals	712	50.1	52.1	47.9	11.8
	Technicians and trades	35	47.6	48.9	51.1	21.2
	Community and personal service workers	151	54.2	60.2	39.8	7.4
	Clerical and administrative workers	101	47.4	45.6	54.4	13.0
	Other *	8	59.4	76.3	23.7	-

(*) Results are indicative only because of a small sample. 'Other' includes sale workers, machinery operators and drivers, labourers, and residual categories.
(**) Small sample.
(-) Not applicable.

5.4. Associations between psychosocial scales in the survey

This section explores whether certain psychosocial scales in the survey are correlated and how they are linked. Future advanced statistical modelling will be conducted to measure psychosocial factors in the healthcare environment and predict the work-related and health and wellbeing outcomes when considering socio-demographic and organisational variables.

Offensive behaviours and other COPSOQ scales

Healthcare workers who report exposure to Bullying, Sexual Harassment, and Threats of Violence in the last 12 months appear to be at:

a higher level of:

- Quantitative Demands
- Emotional Demands
- Work Pace
- Role Conflicts
- Work life conflict
- Burnout
- Stress
- Cognitive Stress

a lower level of:

- Possibilities for Development
- Meaning of Work
- Predictability
- Recognition
- Quality of Leadership
- Social Support from Supervisors
- Job Satisfaction
- Vertical Trust
- Organizational Justice

Self-rated general health and other COPSOQ factors

HCWs who rated their health as good and above appeared to report:

a higher level of:

- Possibilities for Development
- Meaning of Work
- Predictability
- Recognition
- Role Clarity
- Quality of Leadership
- Social Support from Supervisors
- Social Support from Colleagues
- Job Satisfaction
- Horizontal Trust
- Vertical Trust
- Organizational Justice

a lower level of:

- Quantitative Demands
- Emotional Demands
- Role Conflicts
- Job Insecurity
- Insecurity over Working Conditions
- Burnout
- Stress
- Cognitive Stress

(see Appendix 2 for detailed results).

Offensive behaviours and Psychosocial Safety Climate

As shown in Table 12, a lower PSC score is strongly associated with higher risks of exposure to bullying, sexual harassment, and threats of violence. Among workers indicating a very low PSC score (≤26), the proportions of exposure to Bullying, Sexual Harassment, and Threats of Violence are 64.0%, 22.0%, and 50.1%, respectively. These proportions are significantly higher than that reported by workers who indicate a higher PSC score.

Table 12: Offensive behaviours and Psychosocial Safety Climate risk level

Risk level	Score range (12-60)	Prognosis	HCWs (%)	Offensive behaviours (%)		
				Bullying	Sexual Harassment	Threats of Violence
Low risk (very high PSC score)	≥41	The work climate is performing well for worker psychological health and safety.	39.3	14.0	6.5	25.5
Medium Risk	≥37 and ≤40	The work climate is in a steady state, but more enacting of PSC principles is required.	10.6	31.5	13.0	31.2
High Risk	≥27 and ≤36	Increasing PSC levels to high risk from very high risk could reduce depression by 16% and job strain by 14%.	32.8	39.9	13.0	36.8
Very High Risk (very low PSC score)	≤26	Urgent action is required to prevent further dramatic increases in depression periods and worsening conditions (e.g., increased bullying).	17.3	64.0	22.0	50.1

PSC- Psychosocial Safety Climate

PSC-12 risk levels are strongly associated with self-rated health. HCWs who indicate PSC scores greater than or equal to 41 (low risk) rate their health significantly better than those who report a lower PSC score (high risk).

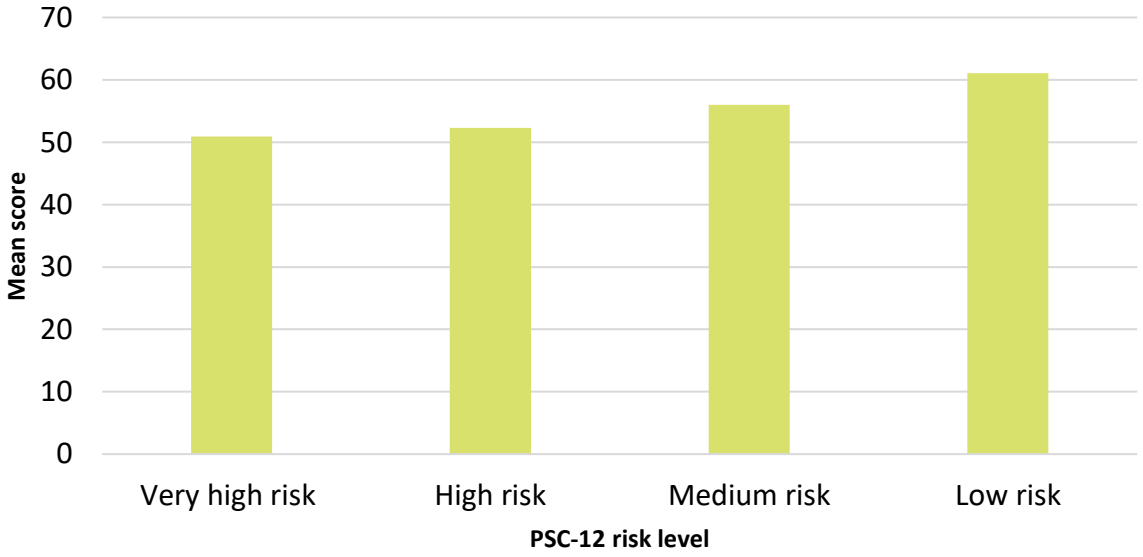


Figure 23: PSC-12 risk level and self-rated health.

Note: Low risk (PSC-12≥41); Medium risk (PSC≥37 and PSC≤40); High risk (PSC≤36 and PSC≥27); Very high risk (PSC≤26).

Psychosocial Safety Climate, COPSOQ factors and WHO wellbeing index

Lower PSC appears to be strongly associated with a higher level of:

- Stress
- Cognitive Stress
- Burnout
- Emotional Demands
- Work Pace
- Role Conflicts.

Higher PSC appears to be strongly associated with a higher level of:

- Social Support from Supervisors
- Job Satisfaction
- Vertical Trust
- Horizontal Trust
- Organisational Justice
- Predictability
- Recognition
- WHO well-being.

5.5. Night work, long working hours and psychosocial factors experienced by healthcare workers

Working in healthcare can involve shift work and long and irregular working hours. There is a long history and strong evidence that night work and long working hours are associated with psychological distress (such as burnout and stress) (Dall'Ora et al., 2023). According to the Health and Social Care Information Centre (2014), night work causes fatigue, sleep difficulties, and increased the risk of anxiety and depression. Organisational interventions could help reduce shift work disorders and improve HCWs' wellbeing and health (d'Ettorre et al., 2018). In this survey, those who work at least three hours between midnight and 5 am in the last four weeks are considered to be involved with night work.

According to the survey, some 24% of healthcare workers in New Zealand report working long and irregular working hours, indicating a hidden risk to their physical and psychosocial health and wellbeing.

Compared to those who do not work at night, HCWs who work at least three hours between midnight and 5 am in the last four weeks appear to face higher risks from (Table 13):

- Work Pace
- Emotional Demands
- Role Conflicts
- Work-life Conflicts
- Burnout.

These workers also report significantly lower:

- Recognition
- Influence at Work
- Social Support from Supervisors
- Job Satisfaction
- Vertical Trust
- Organisational Justice.

HCWs working between midnight and 5 am report significantly lower PSC than those who do not work at night (34.8 compared to 37.7), suggesting a higher risk of psychological and physical outcomes. However, these workers are more likely to report higher Social Support from Colleagues, Meaning of Work and Possibilities for Development (Table 13).

Psychosocial factors vary markedly by weekly work hours. Compared to the average, HCWs who work more than 51 hours per week appear to face higher risks from:

- Quantitative Demands
- Work Pace
- Emotional Demands
- Role Conflict
- Job Insecurity
- Work-life Conflicts
- Burnout.

However, these workers report higher Influence at Work, Possibilities for Development and Role Clarity compared to all HCWs.

When exploring WHO-5 wellbeing by the cut-off point of 50, compared to the average, those working for more than 51 hours per week are 1.2 times more likely to report a mean score of wellbeing less than 50 (indicating poorer wellbeing). Compared to those who do not work a night shift, workers who work between midnight and 5 am are more likely to report an overall wellbeing score of 50 and below (Table 13).

Table 13: Psychosocial factors by night work and average work hours

Domain	Scale	All HCWs	Night work		Average work hours per week				
			Yes	No	< 20 hours	20-30 hours	31-40 hours	41-50 hours	>=51 hours
	Base (N=)	**1067**	**249**	**818**	**105**	**225**	**464**	**212**	**61**
Demands at Work	Quantitative Demands	**50.9**	52.1	50.6	47.3	48.4	50.2	54.4	59.3
	Work Pace	**68.4**	75.8	66.0	61.5	65.4	67.8	72.7	80.1
	Emotional Demands	**67.0**	75.1	64.5	66.8	65.0	65.6	69.8	75.7
Work Organisation and Job Content	Influence at Work	**55.2**	52.5	56.0	52.1	55.3	53.4	58.4	63.2
	Possibilities for Development	**72.8**	76.7	71.5	71.0	71.2	72.3	74.1	80.5
	Meaning of Work	**81.6**	85.4	80.3	84.8	81.7	80.7	80.3	81.6
Interpersonal Relations and Leadership	Predictability	**56.8**	55.2	57.3	62.6	58.9	54.5	56.8	58.7
	Recognition	**54.8**	47.0	57.2	65.2	57.1	52.6	52.1	55.9
	Role Clarity	**68.3**	69.6	67.9	74.1	70.1	67.8	62.8	76.1
	Role Conflicts	**42.0**	49.9	39.5	31.6	38.0	43.6	45.1	50.3
	Quality of Leadership	**59.2**	58.7	59.3	64.0	59.9	58.3	57.7	62.6
	Social Support from Supervisors	**63.4**	58.8	64.9	72.1	64.2	62.8	60.8	62.3
	Social support from Colleagues	**72.7**	76.3	71.6	70.1	73.4	72.6	73.6	72.1
	Sense of Community at Work	**80.5**	80.1	80.7	83.5	80.6	80.3	80.4	78.4
Work-individual Interface	Job Insecurity	**19.0**	17.5	19.5	14.5	17.6	20.7	20.4	12.6
	Insecurity over Working Conditions	**15.6**	17.0	15.2	8.5	13.5	17.0	17.8	16.4
	Job Satisfaction	**71.0**	67.7	72.0	72.6	70.7	70.8	71.4	68.8
	Work-life Conflict	**46.0**	55.1	43.2	32.0	41.0	45.6	54.2	61.4
Social Capital	Horizontal Trust	**68.0**	67.6	68.1	73.4	71.1	66.6	66.6	64.0
	Vertical Trust	**63.9**	59.5	65.3	70.8	66.7	63.4	60.2	60.5
	Organisational Justice	**57.2**	53.5	58.3	66.3	60.8	55.2	53.8	57.8
General health and psychological distress	Self-rated health	**55.9**	56.9	55.6	61.7	54.4	56.5	54.3	52.9
	Burnout	**52.1**	56.6	50.7	42.0	49.3	52.5	56.4	59.3
	Stress	**44.1**	47.6	44.0	35.4	41.2	45.4	49.8	51.5
	Cognitive Stress	**36.8**	39.1	36.0	31.3	35.3	36.4	40.6	39.8
Psychosocial safety climate	Management Commitment	**9.5**	8.9	9.6	10.2	9.8	9.2	9.3	9.4
	Management Priority	**9.1**	8.2	9.3	10.0	9.4	8.9	8.9	8.2
	Organisational Commitment	**9.3**	8.7	9.4	9.6	9.4	9.2	9.3	8.9
	Organisational Participation	**9.2**	9.0	9.3	9.5	9.4	9.1	9.2	9.1

Domain	Scale	All HCWs	Night work		Average work hours per week				
			Yes	No	< 20 hours	20-30 hours	31-40 hours	41-50 hours	>=51 hours
	PSC12- Total	**37.0**	34.8	37.7	39.3	38.0	36.5	36.7	35.6
Wellbeing	WHO-5 Wellbeing	**50.6**	48.2	51.3	56.5	52.5	50.1	47.9	47.2

Mean scores are reported in this table.

As shown in Table 14, reported exposure to Bullying, Sexual Harassment and Threats of Violence is significantly higher in those working night shift compared to workers who do not work between midnight and 5 am. Those working more than 51 hours per week are more likely to report exposure to Threats of Violence than the average (46.7% compared to 34.1%).

Table 14: Offensive behaviours by night work and average work hours.

Offensive behaviours	All HCWs	Night work		Average work hours per week				
		Yes	No	< 20 hours	20-30 hours	31-40 hours	41-50 hours	>=51 hours
Base (N=)	**1067**	**249**	**818**	**105**	**225**	**464**	**212**	**61**
Bullying	**33.0%**	44.5%	29.4%	22.0%	26.3%	32.0%	45.2%	39.4%
Sexual Harassment	**12.0%**	23.2%	8.5%	9.2%	11.9%	12.2%	12.0%	15.7%
Threats of Violence	**34.1%**	58.3%	26.4%	30.1%	26.6%	34.7%	38.2%	46.7%

5.6. Psychosocial factors in the working environment by region

District Health Boards (DHBs) no longer exist in New Zealand's health delivery landscape following a restructuring of the management of health services in 2021. As part of the health reform Te Whatu Ora – Health New Zealand took over the day-to-day operation of the system for the whole country from 1st July 2022. The DHB geographical localities have been retained for this survey for analysis and reporting purposes.

This section explores psychosocial factors experienced by HCWs across all regions. It helps WorkSafe better understand the current psychosocial working environment of the healthcare sector by region and how WorkSafe contributes to improving the psychosocial health and wellbeing of HCWs. The section also aims to provide additional information for the healthcare sector to support their organisational leadership and activities on workplace health and safety.

The most common psychosocial risk factors reported by HCWs in all regions are Work Pace and Emotional Demands. On the other hand, the most common psychosocial protective factors across all regions are:

- Meaning of Work
- Possibilities for Development
- Social Support from Colleagues
- Sense of Community at Work.

Overall, reported psychosocial factors appear similar across all regions. However, there are some notable differences.

- HCWs working in Nelson-Marlborough report a significantly lower mean score for Influence at Work than the average (45.8 compared to 55.2). Lower Influence at Work is known to be harmful to workers. A survey in Swedish female dental health workers showed that the highest levels of fatigue among dentists might be caused by their low levels of Influence at Work (Lindfors et al., 2006).
- HCWs working in Bay of Plenty and Northland appear to face less risk from Insecurity over Working Conditions than the average (8.7 and 7.4, respectively compared to 15.6). Lower Insecurity over Working Conditions is good for workers. In Switzerland, workers with low insecurity reported high ability to cope with changing work and tasks (Maggiori et al., 2013). In contrast, HCWs in Counties Manukau report a significantly higher mean score for Insecurity over Working Conditions than the average (24.6 compared to 15.6).
- HCWs working in Mid Central region report a significantly lower mean score for Quality of Leadership than the average (49.9 compared to 59.2). Lower Quality of Leadership is known to be harmful to workers. A study in Denmark showed that lower Quality of Leadership was a predictor of long-term sickness absence (Sørensen et al., 2020). Workers in Mid Central DHB also indicate a significantly lower PSC score than the average (31.7 compared to 37.0), suggesting a higher risk of psychological and physical outcomes.

(see Table 15 for detailed results).

Table 15: Psychosocial factors in the working environment by region

Domain	Scale	All HCWs	Auckland	Bay of Plenty	Capital & Coast	Counties Manukau	Hawkes Bay	Hutt Valley (*)	Lakes (*)	Mid Central	Northland	Tairawhiti (*)	Taranaki (*)	Waikato	Wairarapa (*)	Waitemata	Whanganui (*)	Canterbury	Nelson-Marlborough	South Canterbury (*)	Southern	West Coast (*)
	Base (N=)	**1067**	**163**	**61**	**76**	**83**	**37**	**20**	**27**	**41**	**46**	**10**	**26**	**92**	**9**	**116**	**20**	**129**	**41**	**12**	**69**	**11**
Demands at work	Quantitative Demands	**50.9**	48.8	53.0	50.8	48.6	50.6	47.2	52.4	50.1	49.5	58.0	54.7	49.9	55.7	50.2	53.9	52.3	57.4	49.2	51.9	54.6
	Work Pace	**68.4**	68.4	70.3	67.6	68.5	71.2	59.3	67.0	64.7	63.1	64.1	70.8	68.9	75.8	71.0	63.3	69.2	68.8	59.2	71.6	54.2
	Emotional Demands	**67.0**	65.0	67.2	63.2	63.9	74.1	53.7	70.2	64.1	73.3	75.7	71.8	65.8	60.8	67.7	69.5	69.4	66.3	74.2	66.9	74.9
Work organisation and job content	Influence at Work	**55.2**	59.7	60.0	55.9	56.0	55.9	56.4	52.1	48.3	57.9	50.9	60.6	55.2	59.3	53.9	53.6	53.7	45.8	54.3	52.7	55.1
	Possibilities for Development	**72.8**	74.9	72.3	73.0	71.7	72.1	76.9	73.2	67.5	72.8	71.1	78.0	72.1	67.0	72.5	73.4	72.3	73.3	71.5	74.0	77.4
	Meaning of Work	**81.6**	83.3	79.6	82.7	82.9	78.8	77.8	79.8	80.7	83.5	81.6	77.5	81.9	74.2	84.1	85.0	80.5	76.4	82.5	81.6	83.9
Interpersonal relations and Leadership	Predictability	**56.8**	60.7	54.4	59.1	52.7	58.9	58.8	53.4	54.4	57.5	50.6	58.8	58.2	62.2	57.7	55.8	54.1	53.5	43.7	59.0	54.7
	Recognition	**54.8**	61.5	49.8	53.2	51.7	56.5	58.0	59.2	44.9	50.3	43.3	61.0	58.1	42.1	56.7	53.0	51.6	53.7	53.5	56.0	49.7
	Role Clarity	**68.3**	71.6	61.3	70.6	66.2	71.0	70.2	66.8	63.9	65.3	59.7	71.3	67.6	69.4	70.7	71.3	66.7	64.5	69.6	70.8	64.0
	Role Conflicts	**42.0**	38.4	41.2	41.8	46.0	40.6	40.0	50.3	37.1	43.5	31.5	47.1	44.3	40.9	42.7	45.9	41.6	44.7	34.8	40.5	44.4
	Quality of Leadership	**59.2**	61.7	57.0	56.2	55.3	55.6	59.9	61.8	49.9	56.2	59.0	61.8	63.5	56.0	60.0	60.8	61.9	56.4	55.2	60.2	53.5
	Social Support from Supervisors	**63.4**	67.9	58.6	60.9	61.9	63.2	61.4	67.9	62.9	61.5	59.2	69.5	59.9	59.8	65.6	57.0	63.9	63.2	56.5	67.6	64.8

Domain	Scale	All HCWs	Auckland	Bay of Plenty	Capital & Coast	Counties Manukau	Hawkes Bay	Hutt Valley (*)	Lakes (*)	Mid Central	Northland	Tairawhiti (*)	Taranaki (*)	Waikato	Wairarapa (*)	Waitemata	Whanganui (*)	Canterbury	Nelson-Marlborough	South Canterbury (*)	Southern	West Coast (*)
	Social Support from Colleagues	**72.7**	71.0	73.2	74.4	73.0	79.8	67.7	75.0	75.7	68.2	83.4	67.3	72.9	62.3	69.8	75.2	73.2	76.9	78.2	74.7	73.5
	Sense of Community at Work	**80.5**	81.0	80.1	82.3	82.0	80.1	77.8	81.4	80.8	79.8	94.2	80.4	81.2	56.2	82.2	74.7	80.7	79.8	76.7	78.7	74.5
Work-individual interface	Job Insecurity	**19.0**	22.3	14.7	20.3	20.6	22.7	25.1	15.8	19.5	16.3	13.2	17.9	17.0	33.6	14.1	23.5	18.1	17.9	4.2	23.4	18.9
	Insecurity over Working Conditions	**15.6**	16.7	8.7	16.5	24.6	11.3	24.2	15.5	18.4	7.4	11.5	10.7	12.9	13.4	11.2	9.2	18.3	16.8	19.7	22.2	5.4
	Job Satisfaction	**71.0**	72.4	70.7	70.3	69.0	68.6	71.7	71.8	72.2	70.0	73.5	70.4	74.6	58.1	73.6	68.7	71.2	68.7	71.4	66.4	76.0
	Work-life Conflict	**46.0**	42.1	48.0	43.3	48.3	50.3	44.9	48.8	39.6	47.6	43.7	50.9	43.8	54.2	44.4	44.1	48.5	44.4	44.8	50.3	57.0
Social capital	Horizontal Trust	**68.0**	69.8	67.0	66.0	64.8	68.6	67.6	73.0	67.9	66.0	75.5	64.6	68.4	62.4	71.3	65.3	68.7	65.2	70.9	67.5	66.0
	Vertical Trust	**63.9**	67.5	61.5	62.4	60.8	64.9	64.0	64.1	57.3	64.2	61.6	65.7	63.3	70.0	68.8	64.9	61.9	57.5	69.5	64.6	67.0
	Organisational Justice	**57.2**	60.0	53.8	54.1	55.2	58.1	55.8	54.0	54.2	55.9	47.3	56.4	57.6	62.8	62.6	54.3	55.7	57.7	64.8	56.3	60.4
General Health and psychological distress	Self-rated Health	**55.9**	59.8	56.0	57.3	57.4	51.1	54.3	58.8	57.7	58.1	53.1	42.6	53.7	33.1	56.3	51.8	56.3	53.8	54.0	53.4	57.4
	Burnout	**52.1**	48.9	52.2	52.2	51.2	58.9	48.4	55.3	44.2	55.2	60.4	57.7	49.9	61.9	51.8	58.8	53.6	49.7	47.8	52.6	49.6
	Stress	**44.1**	43.7	41.7	45.2	47.3	51.0	47.2	43.3	39.1	43.7	41.4	57.6	40.5	50.9	44.1	38.1	47.7	46.0	36.8	43.3	54.9
	Cognitive Stress	**36.8**	36.0	37.7	34.0	31.8	39.6	44.9	34.4	31.5	37.5	33.9	47.7	34.3	40.7	36.1	40.9	39.3	40.8	39.6	35.0	56.1

Domain	Scale	All HCWs	Auckland	Bay of Plenty	Capital & Coast	Counties Manukau	Hawkes Bay	Hutt Valley (*)	Lakes (*)	Mid Central	Northland	Tairawhiti (*)	Taranaki (*)	Waikato	Wairarapa (*)	Waitemata	Whanganui (*)	Canterbury	Nelson-Marlborough	South Canterbury (*)	Southern	West Coast (*)
Offensive behaviours (%)	Bullying	**33.0**	35.1	39.1	32.5	39.3	28.1	42.0	35.7	26.1	35.4	30.6	32.5	32.4	40.8	26.3	25.6	31.7	31.5	17.5	32.8	41.7
	Sexual Harassment	**12.0**	12.0	17.5	10.1	12.7	12.7	6.5	2.7	9.1	5.9	22.7	8.8	11.3	-	12.4	27.7	15.1	16.2	17.5	5.3	13.1
	Threats of Violence	**34.1**	32.6	33.6	36.6	30.7	44.4	38.6	33.9	30.3	28.8	37.4	41.8	33.0	37.9	30.4	41.3	35.7	41.9	40.8	29.1	34.3
Psychosocial Safety Climate	Management Commitment	**9.5**	9.7	9.8	9.2	9.4	8.8	9.8	9.9	8.0	9.4	9.4	10.0	9.6	9.8	9.7	10.0	9.2	9.2	9.6	9.3	10.3
	Management Priority	**9.1**	9.4	9.4	9.0	9.3	8.6	10.4	9.2	7.7	8.7	8.9	9.5	9.4	9.1	9.6	9.2	8.5	8.7	8.8	9.1	9.7
	Organisational Commitment	**9.3**	9.7	9.2	9.2	9.3	8.7	9.4	9.3	7.8	8.8	8.4	9.6	9.4	9.0	9.9	9.1	8.9	9.0	8.8	9.4	9.7
	Organisational Participation	**9.2**	9.6	9.0	9.6	9.4	8.5	10.3	9.1	8.2	8.8	9.3	9.5	9.4	9.3	9.5	9.5	8.8	9.1	9.3	9.0	10.3
	PSC12- Total	**37.0**	38.3	37.4	37.1	37.5	34.6	39.9	37.5	31.7	35.7	35.9	38.6	37.8	37.2	38.7	37.8	35.4	36.0	36.5	36.7	39.9
Wellbeing	WHO-5 Wellbeing	**50.6**	52.1	48.4	49.1	50.8	49.1	51.7	52.4	54.5	51.4	46.2	42.8	51.8	36.3	51.5	47.9	49.5	52.8	52.1	50.2	55.6

Except for offensive behaviours where proportions are reported, mean scores are calculated for all factors.
For region information, workers are asked, "Which DHB region or regions do you mostly work in?".
(*) Results are indicative only because of a small sample size.
(-) Not available.

6. Conclusion

The Psychosocial Survey of Healthcare workers is designed to inform an evidence-based approach to address psychosocial harm in healthcare settings by measuring several indicators of psychosocial safety climate, demands at work, leadership, social capital, interpersonal relations, health and wellbeing, psychological distress, and experience of hostile acts at work. Using a combination of three validated and reliable sets of questionnaires, including the Copenhagen Psychosocial Questionnaire III (COPSOQ III), the Psychosocial Safety Climate (PSC), and the World Health Organization Five Wellbeing Index (WHO-5), the survey aimed to provide data on the nature of psychosocial factors in the healthcare sector and identify key features leading to positive and negative psychosocial work environments.

The survey results have important practical implications for the healthcare sector. Compared to all NZ workers, HCWs are more likely to report exposure to higher demands, bullying, and threats of violence at work. They are less likely to report receiving supervisor support and fair treatment at work. HCWs commonly report lower Recognition, Role Clarity, Predictability, and Psychosocial Safety Climate. The proportion of self-rated health as "good and above" is significantly lower in HCWs than that reported in all NZ workers. However, HCWs report lower Insecurity over Working Conditions and Job Insecurity, and unfair treatment at work. HCWs are more likely to report higher Possibilities for Development, Meaning of Work, Horizontal Trust (trust built among employees), Social Support from Colleagues and Sense of Community at Work (feeling part of the team). Research has shown that a more supportive working environment could improve workers' health and wellbeing and increase their motivation at work (Nahrgang et al., 2011). These survey findings suggest that healthcare organisations could consider developing a supportive working environment for their workers, such as a safety culture, social teamwork, better work organisation, leadership, and management.

In the survey, psychosocial safety climate, psychosocial risks, health, wellbeing, psychological distress, and exposure to offensive behaviours significantly differ by healthcare setting. Compared to the average, HCWs working in a hospital face more significant psychosocial risk from Work Pace, Insecurity over Working Conditions, and Work-life Conflict. They are more likely to report low Recognition, low Job Satisfaction, and unfair treatment at work. However, they report a significantly higher level of Social Support from Colleagues and Horizontal Trust (trust built among employees). The result suggests that the survey results could be used to perform workplace risk assessments to achieve the most appropriate measures to address psychosocial risks/harm in a particular healthcare setting.

The Psychosocial Survey of Healthcare workers has found a strong association between lower PSC and higher levels of Stress, Cognitive Stress, Burnout, Emotional Demands, Work Pace, and Role Conflicts. Lower PSC is also strongly related to higher proportions of reported exposure to Bullying, Sexual Harassment, and Threats of Violence. The study has also identified a range of indicators that could positively impact the organisational PSC, including Social Support from Supervisors, Social Capital at Work, and Recognition. Since PSC has been widely used to predict psychological distress and worker engagement, these findings suggest organisations could benefit from prioritising the mental health of workers and engaging them in decisions that impact their health and wellbeing.

The survey has identified an uneven distribution of psychosocial risks/harm by demographics in the healthcare sector. For example, compared to males, female workers appear to face greater risks from Work Pace, Sexual Harassment, and Burnout. They are also less likely to report strong Influence at Work, Possibilities for Development, and Meaning of Work. However, male HCWs report significantly higher Job Insecurity than their female colleagues. The analysis also shows some of the differences are likely to be associated with workers' occupation. There is a need to further explore psychosocial factors in the healthcare working environment by both occupation and gender to better understand these gaps.

Compared to the average, older workers aged 60 years and above appear to face fewer risks from stress, Burnout, Sexual Harassment, Threats of Violence, Job Insecurity, Work-life Conflict, and Insecurity over Working Conditions. On the other hand, they are more likely to report higher Meaning of Work and Job Satisfaction. These findings suggest several organisational factors to consider supporting cultural safety at work better and mitigate inequities in mentally healthy work in the healthcare sector.

Besides demographics, psychosocial risks and harm in the healthcare sector are significantly different by organisation size. Workers in organisations employing over 100 workers report the lowest PSC of 34.6, suggesting a high risk of depression and job strain. In addition, they appear to face greater risks from Quantitative Demands, Work Pace, Emotional Demands, Role Conflicts, and Insecurity over Working Conditions. HCWs in these organisations report greater levels of exposure to Bullying, Sexual Harassment, and Threats of Violence than the average. Low Social Capital, Predictability, Recognition, and Role Clarity are also commonly reported by HCWs in large organisations. These results suggest that addressing psychosocial risks might be more challenging in large healthcare organisations. There is also a need for good work design, work organisation, and management in these organisations.

The survey has also explored psychosocial factors across regions. People who work mainly in the healthcare industry in the Bay of Plenty and Northland face less risk from Insecurity over Working Conditions than the average. On the other hand, workers in Counties Manukau report a significantly higher mean score for Insecurity over Working Conditions. These findings could help WorkSafe better understand the current psychosocial working environment in the healthcare sector and how WorkSafe could contribute to improving the psychosocial health and wellbeing of HCWs. These also provide additional information to the industry to support their organisational leadership and activities on workplace health and safety.

Healthcare and Social Assistance is one of WorkSafe's prioritised sectors[7]. More insightful evidence on psychosocial factors in the healthcare industry would be helpful for WorkSafe to develop a more targeted approach focusing on the sector. Findings from the survey could support WorkSafe's Strategic Plan for Work-Related Health "Healthy Work" which outlines a plan for a New Zealand where, ultimately, fewer people experience work-related ill-health. Data from this survey could be used to support stakeholder engagement, develop learning and education materials, design initiatives and inform strategic plans for WorkSafe.

[7] WorkSafe's prioritised sectors include Agriculture, Forestry, Manufacturing, Construction, Healthcare and Social Assistance, and Transport, Postal and Warehousing. The selection of prioritised sectors is initially based on the number of ACC acute injury claims.

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Appendix 1: Psychosocial factor mean scores and standard deviations in New Zealand healthcare sector and all workers

Psychosocial factors	HCWs			All workers *				Psychosocial factors	HCWs			All workers *		
	Cronbach's alpha	M	SD	Cronbach's alpha	M	SD			Cronbach's alpha	M	SD	Cronbach's alpha	M	SD
WHO-5 Well-being	0.90	50.6	20.9	-	-	-		Insecurity over Working Conditions	-	15.6	26.1	0.81	24.3	26.7
Quantitative Demands	0.49	50.9	23.0	0.72	47.8	22.1		Job Satisfaction	-	71.0	22.8	0.77	66.0	20.4
Work Pace	0.82	68.4	68.4	0.77	62.0	22.4		Work-life Conflict	0.91	46.0	29.7	0.89	43.5	29.2
Emotional Demands	0.72	67.0	26.3	0.83	41.8	26.6		Horizontal Trust	-	68.0	21.5	-	66.4	23.3
Influence at Work	-	55.2	27.0	0.77	55.3	21.5		Vertical Trust	0.81	63.9	23.2	0.85	65.2	22.3
Possibilities for Development	0.63	72.8	19.8	0.81	64.7	22.8		Organisational Justice	0.75	57.2	22.9	0.83	60.5	22.8
Meaning of Work	-	81.6	20.0	0.85	70.7	25.3		Self-rated Health	-	55.9	25.4	-	59.5	25.9
Predictability	0.75	56.8	21.9	0.73	60.0	23.1		Burnout	0.85	52.1	24.8	-	-	-
Recognition	-	54.8	29.2	0.88	64.6	24.2		Stress	-	44.1	28.5	-	-	-
Role Clarity	-	68.3	22.4	0.81	75.1	18.9		Cognitive Stress	-	36.8	25.0	-	-	-
Role Conflicts	0.77	42.0	25.0	0.76	43.4	25.5		PSC- Management Commitment	0.91	9.5	3.2	-	9.9	3.3
Quality of Leadership	0.88	59.2	26.0	0.79	55.5	26.5		PSC-Management Priority	0.95	9.1	3.4	-	9.9	3.4
Social Support from Supervisors	-	63.4	28.3	0.82	68.3	26.7		PSC-Organisational Commitment	0.86	9.3	2.8	-	10.0	2.9
Social Support from Colleagues	-	72.7	23.3	0.78	68.4	24.4		PSC-Organisational Participation	0.84	9.2	2.8	-	9.9	3.0
Sense of Community at Work	-	80.5	18.3	0.79	76.1	22.2		Overall PSC score	0.96	37.0	11.0	-	39.7	11.8
Job Insecurity	-	19.0	24.7	0.74	40.0	29.6								

SD- Standard Deviation; M- Mean; HCWs- Healthcare workers; PSC- Psychosocial safety climate; Cronbach's alpha measures the scale reliability.

(-): Not available.

(*): Data for all workers is obtained from the New Zealand Psychosocial Survey 2021 and the New Zealand Workplace Barometer 2021.

8. Appendix 2: Mean scores of psychosocial factors by offensive behaviours and self-rated health in New Zealand healthcare workers

	Bullying		Sexual Harassment		Threats of Violence		Self-rated Health	
	Yes	No	Yes	No	Yes	No	Fair and Poor	Good and above
WHO-5 Well-being	43.0	54.3	40.7	51.9	45.9	53.0	35.2	55.5
Quantitative Demands	55.2	48.8	61.2	49.5	56.0	48.3	54.8	49.7
Work Pace	74.9	65.2	79.7	66.9	76.3	64.3	70.7	67.7
Emotional Demands	74.0	63.6	78.3	65.5	78.7	61.0	71.9	65.5
Influence at Work	50.8	57.3	57.3	54.9	54.9	55.4	53.9	55.6
Possibilities for Development	69.8	74.2	74.8	72.5	73.5	72.4	70.1	73.6
Meaning of Work	78.6	83.0	81.3	81.6	83.6	80.5	78.9	82.4
Predictability	47.9	61.2	48.4	58.0	51.5	59.5	49.3	59.2
Recognition	41.7	61.2	44.4	56.2	47.4	58.6	47.6	57.0
Role Clarity	59.9	72.4	63.8	68.9	66.5	69.2	62.3	70.2
Role Conflicts	54.1	36.1	59.1	39.7	51.2	37.3	49.3	39.7
Quality of Leadership	50.5	63.6	55.4	59.7	57.4	60.1	53.6	61.0
Social Support from Supervisors	54.2	68.1	57.1	64.3	60.4	65.1	58.4	65.0
Social Support from Colleagues	69.2	74.5	73.0	72.7	73.4	72.4	68.9	74.0
Sense of Community at Work	73.9	83.9	77.1	81.0	79.4	81.1	74.8	82.4
Job Insecurity	24.9	16.1	19.1	19.0	18.5	19.3	26.5	16.6
Insecurity over Working Conditions	25.3	10.9	20.4	15.0	21.2	12.8	21.7	13.7
Job Satisfaction	62.5	75.1	60.0	72.5	66.2	73.4	62.7	73.6
Work-life Conflict	58.4	39.9	63.8	43.6	55.1	41.4	59.1	41.9
Horizontal Trust	60.1	71.9	65.3	68.4	64.3	69.9	61.4	70.1
Vertical Trust	51.9	69.9	54.3	65.3	57.2	67.4	57.0	66.2
Organisational Justice	44.2	63.6	46.7	58.6	50.1	60.8	49.5	59.6
Burnout	62.1	47.1	65.3	50.3	59.7	48.1	67.6	47.1
Stress	56.3	39.2	58.3	43.0	50.9	41.7	58.8	40.4
Cognitive Stress	43.2	33.6	49.2	35.1	40.8	34.7	49.0	32.9
Overall PSC score	30.9	40.1	31.9	37.7	33.6	38.8	34.0	38.0

PSC- Psychosocial Safety Climate

9. Appendix 3: Technical report

RESEARCH DESIGN

This section details the population of interest, questionnaire development, interview methods, and response rates.

Population of interest

The population of interest for this survey is people aged 18 years and over who are:

1) employees working for wages or salary, or self-employed and
2) working in the healthcare industry. Specific healthcare industries included were:
    a. hospitals
    b. medical and other healthcare services (including physical and mental health/counselling).

Those working in residential care and social assistance services are excluded from the population of interest. Those without pay in a family business were also excluded.

Questionnaire development

Demographics

Demographic questions included covered:

- Employment status (employee or self-employed)
- Gender
- Age
- Ethnicity
- Healthcare sector
- DHB region
- DHB work status
- Occupation
- Work setting
- Length of time worked in healthcare industry
- Size of employer
- Direct reports
- Number of hours worked (weekly)
- Migrant status
- Citizenship/visa/residency status
- Carer responsibilities
- Night work
- Lone work
- Household income

COPSOQ-III

The questionnaire was the English version of the COPSOQIII questionnaire and used the 32 core items, as well as adding horizontal trust (TE3). Seven items relating to indicators of specific harm (e.g., exposure to sexual harassment, threats of violence and burnout) were also included in addition to core items.

As a result of cognitive testing for the 2021 psychosocial survey, several changes were made to ensure transferability of the COSOQ-III to the New Zealand context. These changes were also applied to the version of the COPSOQ used in the current healthcare survey. Details of the previous cognitive testing can be found in the technical report for that survey.

The survey uses all the CORE items in the COPSOQIII with the following additions.

- TE3, Horizonal Trust
- TV1, Threats of Violence,
- BU1, Bullying
- BO2 & BO3, Burnout
- ST1, Stress
- CS1, Cognitive Stress

PSC-12

The questionnaire was the English version of the PSC-12 and included all 12-items. No changes to the wording were made, however additional instruction was included as well as one change to grammar. These adjustments are summarised below.

- Additional instruction added MC1, MC2, MC3, MP2, MP3 to clarify senior management "By senior management, we mean leaders responsible for making strategic decisions."
- Grammar changes at OC1 "effect" changed to "affect" for specificity and correctness.

WHO-5

The questionnaire was the original English version of the WHO-5 and no changes were made to content.

Programming

The survey was programmed in NField (an online survey software used by Kantar Public) and designed to be device agnostic (i.e., easy to complete on either smartphone, PC, or table).

Piloting

The questionnaire was conventionally piloted with 30 respondents for the online panel survey and then a further 100 respondents. This was done to test the occupations captured, interview length and survey processes. The pilot ran smoothly.

Interview method

A flexible and multi-method approach was used to survey 1,062 healthcare workers.

The table below summarises the two methods used and key methodological parameters. All methods allowed for a dynamic survey – respondents were only shown the questions they needed to answer and were therefore forced to answer a question before seeing the subsequent questions. More detailed descriptions of each method follow the table.

Sample source / target group	Survey method	Fieldwork period	Achieved sample size		Response rate	Respondent incentive
			Before data cleaning	After data cleaning		
Online panel interviews	Online survey	25 February – 16 March 2022	562	528	23%	Agreed panel incentives
Electoral roll	Push-to-web survey	6 April – 15 May 2022	549	534	24%	$10 e-gift card (offered to batch 1) and $1,000 prize draw (offered to batch 2)

The average interview length was 15-minutes.

Detailed response rate calculations

		Kantar online panel	Push to web
A	No response	3,064	2,278
B	Non-qualifier screen outs	674	173
C	Completed interviews (before data cleaning)	562	549
	Total number of contacts	4,300	3,000
D	Proportion eligible = C/(B+C)	.45	.76
E	Total estimated number of eligible contacts = (D*A) +C)	2497	2280
	Response rate = C/E	23%	24%

Online panel survey

562 workers were surveyed and sourced from the Kantar online panel. Note, 34 respondents were removed at the data cleaning stage. Screening questions were used to ensure respondents in the target definition completed the survey. An open field for the specific healthcare industry question was used (in addition to the specified categories) in the early part of the fieldwork as a doublecheck that respondents in the right health sectors/industries were completing the survey. 'Soft' quotas[8] were used to track completed interviews by age within gender, region, and ethnicity.

Push-to-web

A push-to-web methodology was used to boost the online panel survey, with sample sourced from the Electoral Roll. The open occupation field in the Electoral Roll was used to identify likely healthcare workers – 3,000 individuals were randomly selected from this group and sent a letter inviting them to visit a website to complete the survey online.

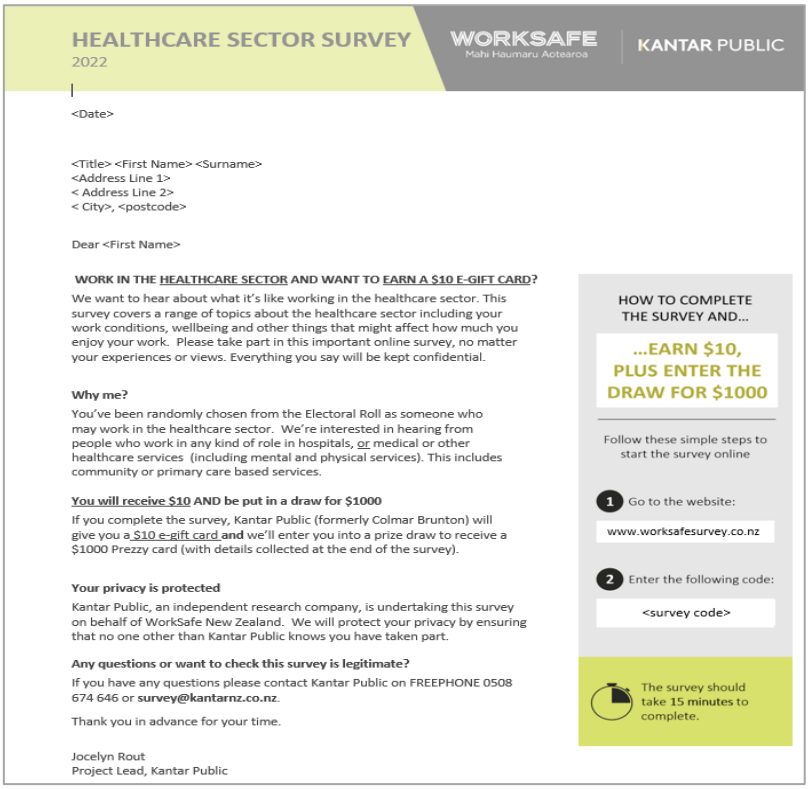
Three communications were sent to respondents: an initial invitation letter (sent on 6 April), a first postcard reminder (sent 20 April), and a second postcard reminder (sent 2 May).

Two versions of the letter (and postcards) were sent. The first batch was sent to 2,000 of the 3,000 contacts and offered a guaranteed $10 e-gift-card. The second batch was sent to 1,000 contacts and placed respondents into a $1000 prize-draw.

[8] 'Soft' quotas are used by the project manager to monitor the sample as fieldwork progresses to ensure the overall sample of completed interviews is a good representation/mix of the required subgroups within a variable (region, age by gender, ethnicity). Unlike hard quotas, respondents are not screened on these quotas unless remedial action to correct a strong bias is required (which it was not for this survey).

The batch 1 letter and reminder postcard are shown below and overleaf.

549 respondents completed the survey via the push-to-web methodology (before data cleaning). 15 respondents were removed during the data cleaning stage leaving 534 eligible respondents.



HEALTHCARE SECTOR SURVEY
2022

WORKSAFE
Mahi Haumaru Aotearoa

KANTAR PUBLIC

<Date>

<Title> <First Name> <Surname>
<Address Line 1>
< Address Line 2>
< City>, <postcode>

Dear <First Name>

WORK IN THE HEALTHCARE SECTOR AND WANT TO EARN A $10 E-GIFT CARD?

We want to hear about what it's like working in the healthcare sector. This survey covers a range of topics about the healthcare sector including your work conditions, wellbeing and other things that might affect how much you enjoy your work. Please take part in this important online survey, no matter your experiences or views. Everything you say will be kept confidential.

Why me?

You've been randomly chosen from the Electoral Roll as someone who may work in the healthcare sector. We're interested in hearing from people who work in any kind of role in hospitals, or medical or other healthcare services (including mental and physical services). This includes community or primary care based services.

You will receive $10 AND be put in a draw for $1000

If you complete the survey, Kantar Public (formerly Colmar Brunton) will give you a $10 e-gift card **and** we'll enter you into a prize draw to receive a $1000 Prezzy card (with details collected at the end of the survey).

Your privacy is protected

Kantar Public, an independent research company, is undertaking this survey on behalf of WorkSafe New Zealand. We will protect your privacy by ensuring that no one other than Kantar Public knows you have taken part.

Any questions or want to check this survey is legitimate?

If you have any questions please contact Kantar Public on FREEPHONE 0508 674 646 or **survey@kantarnz.co.nz**.

Thank you in advance for your time.

Jocelyn Rout
Project Lead, Kantar Public

HOW TO COMPLETE THE SURVEY AND...

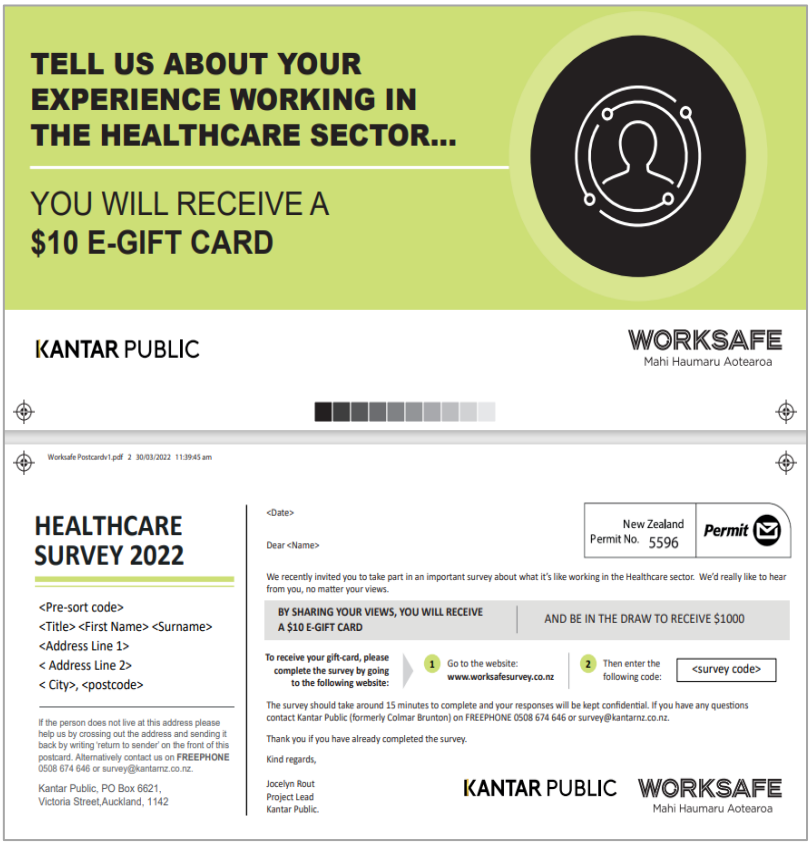
...EARN $10, PLUS ENTER THE DRAW FOR $1000

Follow these simple steps to start the survey online

1 Go to the website:
www.worksafesurvey.co.nz

2 Enter the following code:
<survey code>

The survey should take 15 minutes to complete.



TELL US ABOUT YOUR EXPERIENCE WORKING IN THE HEALTHCARE SECTOR...

YOU WILL RECEIVE A
$10 E-GIFT CARD

KANTAR PUBLIC

WORKSAFE
Mahi Haumaru Aotearoa

Worksafe Postcardv1.pdf 2 30/03/2022 11:39:45 am

HEALTHCARE SURVEY 2022

<Pre-sort code>
<Title> <First Name> <Surname>
<Address Line 1>
< Address Line 2>
< City>, <postcode>

If the person does not live at this address please help us by crossing out the address and sending it back by writing 'return to sender' on the front of this postcard. Alternatively contact us on **FREEPHONE** 0508 674 646 or survey@kantarnz.co.nz.

Kantar Public, PO Box 6621,
Victoria Street,Auckland, 1142

<Date>

Dear <Name>

New Zealand Permit No. 5596 Permit

We recently invited you to take part in an important survey about what it's like working in the Healthcare sector. We'd really like to hear from you, no matter your views.

BY SHARING YOUR VIEWS, YOU WILL RECEIVE A $10 E-GIFT CARD | AND BE IN THE DRAW TO RECEIVE $1000

To receive your gift-card, please complete the survey by going to the following website:

1 Go to the website: **www.worksafesurvey.co.nz**

2 Then enter the following code: <survey code>

The survey should take around 15 minutes to complete and your responses will be kept confidential. If you have any questions contact Kantar Public (formerly Colmar Brunton) on FREEPHONE 0508 674 646 or survey@kantarnz.co.nz.

Thank you if you have already completed the survey.

Kind regards,

Jocelyn Rout
Project Lead
Kantar Public.

KANTAR PUBLIC WORKSAFE
Mahi Haumaru Aotearoa

DATA PROCESSING, WEIGHTING, AND SAMPLING ERRORS

This section details data processing, weighting, and sampling errors including design effects.

Data cleaning

As noted earlier, 49 respondents were removed during the data cleaning stage as they were deemed not to fit the target audience.

Coding and data processing

Free text answers were given for occupation (Q80 and Q81) and for 'other' categories for healthcare industry (Q76), ethnicity (Q4), work location (Q85), and visa type (Q14). These responses were coded post-fieldwork. Occupation was coded using the Australian and New Zealand Standard Classification of Occupations (ANZSCO) v12 codes to Classification Level 5 (6 digits) where possible.

As part of Kantar Public's quality control processes, 10% of coding was validated by another person.

Weighting

As with all general population surveys, this survey will have some inherent biases relating to non-response bias. Demographic biases can be corrected in the survey results to accurately reflect the wider healthcare worker population through weighting.

The survey data have been weighted by age within gender and ethnicity. A simple cell-based weighting approach was adopted. Weights were prepared using 2018 Census Data of people who were:

- Aged 18 years and over,
- Working for wages or salary or self-employed (and not employing others),
- Working in healthcare – this was defined as those who work in hospitals, or medical and other healthcare services in a range of professional and non-professional roles based in both institutions (hospitals) and community/primary care. The definition excluded residential care and social assistance.

The minimum and maximum weighting factors were 0.465 and 3.077 respectively. The weighting matrices are detailed in the tables overleaf.

Ethnicity (weighting matrix)	Yes	No
Māori	11.4	88.6
Pacific peoples	4.18	95.2
Asian peoples	16.0	84.0

Age within gender (weighting matrix)	
Females 18-29 years	12.9%
Females 30-39 years	14.8%
Females 40-49 years	17.8%
Females 50-59 years	21.6%
Females 60 years and over	14.6%
Males 18-39 years	7.5%
Males 40-49 years	3.9%
Males 50-59 years	4.2%
Males 60 years and over	2.7%

Design effect and sampling errors

Each step in the sampling and weighting scheme affects the sampling error of a survey question proportion in some way. Some of the weighting steps may have reduced bias in the survey estimates (for example, by adjusting for designed unequal selection probabilities of different respondents, or even by adjusting for unequal coverage and response probabilities). But in order to achieve these bias reductions, the sampling error for survey estimates is increased above the sampling error of a simple random sample without weighting.

For the purposes of the healthcare psychosocial survey, a simplified approximation from heterogeneity of weights[9] was used to indicate the design effect (hereafter 'deff') – in other words, how much sampling error has been increased by each stage in the weighting procedure.

$$deff(wgt) = n \frac{\sum_i wgt_i^2}{(\sum_i wgt_i)^2}$$

The design effect for this survey was calculated to be 1.122. The maximum sampling error for the total sample size of 1,062 (at the 95% confidence level) is +/-3.4%.

SURVEY METHOD ADVANTAGES AND LIMITATIONS

All survey methods have their advantages and disadvantages. A key advantage of the online panel method was that respondents are financially incentivised to take part in the survey, with no need to use the survey topic to encourage engagement. This minimises subject related response bias, which can be especially important given the topic of psycho-social harm. We needed to refer to the broad subject matter in the push to web letter/survey invite. This means it is more susceptible to subject related response bias. However, we kept references to the topic reasonably broad to reduce this risk.

Demographic sample profile

	Unweighted		**Weighted**	
	n	%	n	%
All workers (total sample)	1067	100%	1067	100%
Gender				
Male	209	20%	195	18%
Female	858	80%	872	82%
Gender diverse	0	0%	0	0%
Age				
18-29	82	8%	145	14%
30-39	235	22%	230	22%
40-49	242	23%	232	22%
50-59	312	29%	276	26%
60-69	162	15%	154	14%
70+	34	3%	31	3%
Ethnicity				

9 Kish heterogeneity of weights design effect. Equation 23, paragraph 46, p110 in Kalton G, Brick MJ, Le T, in "Estimating component of design effects for use in sample design" chapter VI in Household Sample Surveys in Developing and Transitional Countries United Nations Statistical Division

	Unweighted		Weighted	
	n	%	n	%
New Zealand European	798	75%	762	71%
Māori	88	8%	122	11%
Samoan	18	2%	31	3%
Cook Island Māori	1	*	2	*
Tongan	4	*	6	1%
Niuean	5	*	9	1%
Chinese	44	4%	55	5%
Indian	42	4%	48	5%
Another ethnic group	17	2%	16	1%
Other European	64	6%	57	5%
Other Asian	66	6%	70	7%
New Zealander/Kiwi	3	*	3	*
Other Pacific	3	*	5	*
Don't know	2	*	2	*
Migrant Status				
Born in New Zealand	743	70%	740	69%
Not born in New Zealand	324	30%	327	31%
Carer Responsibilities				
Has carer responsibilities	376	35%	367	34%
Has no carer responsibilities	690	65%	699	66%
Don’t know if they have carer responsibilities	1	*	1	*
DHB Region				
Auckland District Health	163	15%	164	15%
Bay of Plenty District Health Board	61	6%	56	5%
Capital & Coast District Health Board	76	7%	78	7%
Counties Manukau District Health Board	83	8%	88	8%
Hawkes Bay District Health Board	37	3%	35	3%
Hutt Valley District Health Board	20	2%	23	2%
Lakes District Health Board	27	3%	28	3%
Mid Central District Health Board	41	4%	39	4%
Northland District Health Board	46	4%	47	4%
Tairawhiti District Health Board	10	1%	11	1%
Taranaki District Health Board	26	2%	26	2%
Waikato District Health Board	92	9%	98	9%
Wairarapa District Health Board	9	1%	9	1%
Waitemata District Health Board	116	11%	112	10%
Whanganui District Health Board	20	2%	21	2%
Canterbury District Health Board	129	12%	126	12%
Nelson-Marlborough District Health Board	41	4%	37	4%
South Canterbury District Health Board	12	1%	11	1%
Southern District Health Board	69	6%	67	6%
West Coast District Health Board	11	1%	13	1%
Don't know	3	1%	3	*
Business size				
Self-employed	34	3%	29	3%
1-5 employees	89	8%	90	8%
6 - 9	74	7%	80	7%
10 - 19	113	11%	110	10%
20 - 49	129	12%	130	12%

	Unweighted		Weighted	
	n	%	n	%
50 - 99	81	8%	86	8%
100 or more	505	47%	499	47%
Don’t know	42	4%	43	4%

*Indicates % is between 0.0% and 1%

10. Appendix 4: Survey Questionnaire

B001 - B001: **Demographics** Begin block

Q016: **Work status** Single coded

Not back

Are you...

Normal

1	An employee working for wages or salary	
2	Working without pay in a family business	➔ GO TO SCREEN OUT
3	Self-employed (and not employing others)	
4	None of the above	➔ GO TO SCREEN OUT

Q001: **Industry** Single coded

Not back

Which industry do you work in?

Select the one that best fits your main job

Normal

6	Agriculture	➔ GO TO SCREEN OUT
18	Healthcare and social assistance	
7	Manufacturing	➔ GO TO SCREEN OUT
8	Construction	➔ GO TO SCREEN OUT
9	Wholesale or retail trade	➔ GO TO SCREEN OUT
10	Accommodation and food services	➔ GO TO SCREEN OUT
11	Transport, postal and warehousing	➔ GO TO SCREEN OUT
12	Financial and insurance services	➔ GO TO SCREEN OUT
13	Professional, scientific and technical services	➔ GO TO SCREEN OUT
14	Administrative and support services	➔ GO TO SCREEN OUT
15	Public administration and safety	➔ GO TO SCREEN OUT
16	Education and training	➔ GO TO SCREEN OUT
17	Other (please tell us) **Open *Fixed*	➔ GO TO SCREEN OUT

Q076 - Q001a: **Healthcare industry** Single coded

Not back

You selected healthcare as your primary industry. Which specific healthcare industry do you work in?

Select the one that best fits your main job.

Normal

1 Hospitals

2 Medical and other health-care services (including physical and mental health/counselling)

3 Residential care services ➔ GO TO SCREEN OUT

4 Social assistance services ➔ GO TO SCREEN OUT

5 Other *Open *Fixed

Q002 - Gender: Single coded

Not back

Are you...

Normal

1 Male

2 Female

3 Another gender

Q003: **Age** Single coded

Not back

Which age group are you in?

Normal

1	18 - 19
2	20 - 24
3	25 - 29
4	30 - 34
5	35 - 39
6	40 - 44
7	45 - 49
8	50 - 54
9	55 - 59
10	60 - 64
11	65 - 69
12	70 - 74
13	75 or over

Q004: **Ethnicity** Multi coded

Not back | Min = 1

Which of these ethnic groups best describe you? You can choose more than one.

Normal

1 New Zealand European

2 Māori

3 Samoan

4 Cook Island Māori

5 Tongan

6 Niuean

7 Chinese

8 Indian

9 Another ethnic group (please tell us) *Open

10 Don't know *Exclusive

Q077 - Q017 Intro**: DHB** Single coded

Not back

Do you work for a District Health Board?

Normal

1 Yes

2 No

999 Don't know *Fixed *Exclusive

Ask only if **Q077 - Q017Intro**,1

Q017 - Q012: **DHB** Multi coded

Not back | Min = 1

Which DHB region or regions do you mostly work in?

Please select all that apply

Normal

1	Auckland District Health Board
2	Bay of Plenty District Health Board
3	Capital & Coast District Health Board
4	Counties Manukau District Health Board
5	Hawkes Bay District Health Board
6	Hutt Valley District Health Board
7	Lakes District Health Board
8	Mid Central District Health Board
9	Northland District Health Board
10	Tairāwhiti District Health Board
11	Taranaki District Health Board
12	Waikato District Health Board
13	Wairarapa District Health Board
14	Waitematā District Health Board
15	Whanganui District Health Board
16	Canterbury District Health Board
17	Nelson-Marlborough District Health Board
18	South Canterbury District Health Board
19	Southern District Health Board
20	West Coast District Health Board
999	Don't know *Fixed *Exclusive

Ask only if **Q077 - Q017Intro**,2,999

Q091 - Q017b: **DHB** Multi coded

Not back | Min = 1

Which DHB region or regions do you live in?

Please select all that apply

Normal

1	Auckland District Health Board
2	Bay of Plenty District Health Board
3	Capital & Coast District Health Board
4	Counties Manukau District Health Board
5	Hawkes Bay District Health Board
6	Hutt Valley District Health Board
7	Lakes District Health Board
8	Mid Central District Health Board
9	Northland District Health Board
10	Tairāwhiti District Health Board
11	Taranaki District Health Board
12	Waikato District Health Board
13	Wairarapa District Health Board
14	Waitematā District Health Board
15	Whanganui District Health Board
16	Canterbury District Health Board
17	Nelson-Marlborough District Health Board
18	South Canterbury District Health Board
19	Southern District Health Board
20	West Coast District Health Board
999	Don't know *Fixed *Exclusive

Q080: **Occupation1** Open

Not back

What is your current job title?

If you have more than one job, please answer about your main job.

Q085 - Q081pre: **Work setting/location** Multi coded

Not back

Where do you mainly work?

Please select as many that apply.

Normal

1 Hospital

2 Clinic

3 Community centre

4 Other people's homes

5 Ambulance

7 In an office

6 Somewhere else (please tell us) *Open *Fixed

Q081: **Occupation2** Open

Not back

What are the main tasks and duties of your job?

Q006: **Time in industry** Single coded

Not back

For how long have you been working in the [INDUSTRY FROM Q001a] industry?

Normal

1 Less than a year

2 1 - 3 years

3 4 - 9 years

4 More than 10 years

5 Can't remember

Q008: **Business size** Single coded

Not back

Now thinking about the current business you work for, how many employees usually work in the business or organisation?

If your business operates from more than one site in New Zealand, please answer with how many employees usually work at the site you are **currently** working from.

If you're not sure, your best guess is fine.

Normal

1 Self-employed

2 1 - 5

3 6 - 9

4 10 - 19

5 20 - 49

6 50 - 99

7 100 or more

8 Don't know

Q009: **Direct reports** Single coded

Not back

How many (if any) people currently report directly to you at work?

By direct reports we mean people you immediately manage or supervise and you are responsible for managing their workload and performance.

Normal

1 None – no-one reports to me directly

2 1 person

3 2 - 3 people

4 4 - 5 people

5 6 - 10 people

6 Over 10 people

7 Don't know

Q007: **Average work hours** Single coded

Not back

On average, not counting travel time, about how many hours do you work a week?

Only include paid work and please include time at all **paid** jobs if you have more than one.

Normal

1 Less than 20 hours

2 20 - 30 hours

3 31 - 40 hours

4 41 - 50 hours

5 51 - 60 hours

6 61 hours or more

7 Don't know

B001 - B001: **Demographics** End block

B003: **WHO5: Well-being index** Begin block

Q019: **WHO1: WHO-5 index items** Matrix

Not back | Number of rows: 5 | Number of columns: 6 | Handle as scale

Please indicate for each of the five statements which is closest to how you have been feeling over the **last two weeks.**

Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick in the box that states 'More than half of the time'

Rows: Normal | Columns: Normal

Rendered as Dynamic Grid

	All the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
I have felt cheerful and in good spirits.	❍	❍	❍	❍	❍	❍
I have felt calm and relaxed.	❍	❍	❍	❍	❍	❍
I have felt active and vigorous.	❍	❍	❍	❍	❍	❍
I woke up feeling fresh and rested.	❍	❍	❍	❍	❍	❍
My daily life has been filled with things that interest me.	❍	❍	❍	❍	❍	❍

B003: WHO5: Well-being index End block

B005: **COPSOQ_III: COPSOQ-III QUESTIONNNAIRE** Begin block

Q083: Q33Intro: **Intro** Text

Not back

Now we have some questions about what your work/workplace is like.

Please answer with the best option provided.

Q033: QD2: **Quantitative Demands2** Single coded

Not back

How often do you not have time to complete all your work tasks?

Normal

1 Always *Fixed

2 Often *Fixed

3 Sometimes *Fixed

4 Seldom *Fixed

5 Never/hardly ever *Fixed

Q034: QD3: **Quantitative Demands3** Single coded

Not back

Do you get behind with your work?

Normal

1 Always *Fixed

2 Often *Fixed

3 Sometimes *Fixed

4 Seldom *Fixed

5 Never/hardly ever *Fixed

Q035: WP1: **Work Pace 1** Single coded

Not back

Do you have to work very fast?

Normal

1 Always *Fixed

2 Often *Fixed

3 Sometimes *Fixed

4 Seldom *Fixed

5 Never/hardly ever *Fixed

Q036 - WP2: **Work Pace 2** Single coded

Not back

Do you work at a high pace throughout the day?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q037: ED2: **Emotional demands 2** Single coded

Not back

Do you have to deal with other people's personal problems as part of your work?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q038: ED3: **Emotional demands 3** Single coded

Not back

Is your work emotionally demanding?

Normal

1 Always *Fixed

2 Often *Fixed

3 Sometimes *Fixed

4 Seldom *Fixed

5 Never/hardly ever *Fixed

Q039: **INX1: Influence at work 1** Single coded

Not back

Do you have a large degree of influence on the decisions concerning your work?

Normal

1 Always *Fixed

2 Often *Fixed

3 Sometimes *Fixed

4 Seldom *Fixed

5 Never/hardly ever *Fixed

Q040: PD2: **Possibilities for development 2** Single coded

Not back

Do you have the possibility of learning new things through your work?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q041: PD3: **Possibilities for development 3** Single coded

Not back

Can you use your skills or expertise in your work?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q042: MW1: **Meaningful work 1** Single coded

Not back

Is your work meaningful?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q043: PR1: **Predictability 1** Single coded

Not back

At your place of work, are you informed well in advance concerning for example important decisions, changes or plans for the future?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q044: PR2: **Predictability 2** Single coded

Not back

Do you receive all the information you need in order to do your work well?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q045: RE1: **Recognition** Single coded

Not back

Is your work recognised and appreciated by the management?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q046: CL1: **Role clarity 1** Single coded

Not back

Does your work have clear objectives?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q047: CO2: **Role conflicts 1** Single coded

Not back

Are contradictory demands placed on you at work?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q048: VBB: CO3: **Role conflicts 2** Single coded

Not back

Do you sometimes have to do things which ought to have been done in a different way?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q086: QL_T: **Quality of leadership** Matrix

Not back | Number of rows: 2 | Number of columns: 5

To what extent would you say that your immediate manager or supervisor...

Your immediate manager is the person you usually report to.

Rows: Normal | Columns: Normal

Rendered as Dynamic Grid

	To a very large extent *Fixed	To a large extent *Fixed	Somewhat *Fixed	To a small extent *Fixed	To a very small extent / Not at all *Fixed	I do not have a supervisor *Fixed
Is good at work planning	❍	❍	❍	❍	❍	❍
Is good at solving conflicts	❍	❍	❍	❍	❍	❍

Q050: SSX2: **Social support from supervisor 2** Single coded

Not back

How often do you get help and support from your immediate manager, if needed?

Normal

1 Always *Fixed

2 Often *Fixed

3 Sometimes *Fixed

4 Seldom *Fixed

5 Never/hardly ever *Fixed

6 I do not have a supervisor *Fixed

Q051: SCX1: **Social support from colleagues 1** Single coded

Not back

How often do you get help and support from your colleagues, if needed?

Normal

1 Always

2 Often

3 Sometimes

4 Seldom

5 Never/hardly ever

6 I do not have colleagues

Q052 - SW1: **Sense of community at work 1** Single coded

Not back

Is there a good atmosphere between you and your colleagues?

Normal

1 Always

2 Often

3 Sometimes

4 Seldom

5 Never/hardly ever

6 I do not have colleagues

Q053: JI1: **Job insecurity 1** Single coded

Not back

Are you worried about becoming unemployed?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q054: JI3: **Job insecurity 3** Single coded

Not back

Are you worried about it being difficult for you to find another job if you became unemployed?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q055: IW1: **Insecurity over working conditions 1** Single coded

Not back

Are you worried about being transferred to another job against your will?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q090: JS_Copy_1: **Job satisfaction** Matrix

Not back | Number of rows: 1 | Number of columns: 5

Regarding your work in general. How pleased are you with...

Rows: Normal | Columns: Normal

Rendered as Dynamic Grid

	Very satisfied *Fixed	Satisfied *Fixed	Neither/Nor *Fixed	Unsatisfied *Fixed	Very unsatisfied *Fixed
Your job as a whole, everything taken into consideration	❍	❍	❍	❍	❍

Q089: q057i: **Work-life intro** Text

Not back

The next questions concern the ways in which your work affects your private life.

Q057: WF2: **Work life conflict 2** Single coded

Not back

Do you feel that your work drains so much of your energy that it has a negative effect on your private life?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q058: WF3: **Work life conflict 3** Single coded

Not back

Do you feel that your work takes so much of your time that it has a negative effect on your private life?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q059: TJintr: **Trust and justice intro** Text

Not back

The next questions are not about your own job but about the workplace as a whole.

Q066: TE3: **Horizontal trust** Single coded

Not back

Do the employees in general trust each other?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q060: TM1: **Vertical trust** Single coded

Not back

Does the management trust the employees to do their work well?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q061: TMX2: **Vertical trust 2** Single coded

Not back

Can the employees trust the information that comes from the management?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q062: JU1: **Organizational justice 1** Single coded

Not back

Are conflicts resolved in a fair way?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q063: JU4: **Organizational justice 4** Single coded

Not back

Is the work distributed fairly?

Normal

1 To a very large extent *Fixed

2 To a large extent *Fixed

3 Somewhat *Fixed

4 To a small extent *Fixed

5 To a very small extent / Not at all *Fixed

Q088: **Intro negative acts** Text

Not back

Some of the questions that follow are of a sensitive nature. You may wish to answer these in private. Please remember that all of your answers will be kept confidential.

Q068: TV1: **Threats of violence 1** Single coded

Not back

Have you been exposed to threats of violence at your workplace during the last 12 months?

Normal

1 Yes, daily *Fixed

2 Yes, weekly *Fixed

3 Yes, monthly *Fixed

4 Yes, a few times *Fixed

5 No *Fixed

Q067: SH1: **Sexual harassment 1** Single coded

Not back

Have you been exposed to undesired sexual attention at your workplace during the last 12 months?

Normal

1 Yes, daily *Fixed

2 Yes, weekly *Fixed

3 Yes, monthly *Fixed

4 Yes, a few times *Fixed

5 No *Fixed

Q069: BU1: **Bullying 1** Single coded

Not back

Bullying means that a person repeatedly is exposed to unpleasant or degrading treatment, and that the person finds it difficult to defend himself or herself against it.

Have you been exposed to bullying at your workplace during the last 12 months?

Normal

1 Yes, daily *Fixed

2 Yes, weekly *Fixed

3 Yes, monthly *Fixed

4 Yes, a few times *Fixed

5 No *Fixed

Q064: IntrHealth: **Intro health** Text

Not back

The following question is about your own health and well-being. Please do not try to distinguish between symptoms that are caused by work and symptoms that are due to other causes. The task is describe how you are in general.

Q065: GH1: **Self related health** Single coded

Not back

The question is about your health and well-being during the last four weeks. In general, would you say your health is...

Normal

1 Excellent *Fixed

2 Very good *Fixed

3 Good *Fixed

4 Fair *Fixed

5 Poor *Fixed

Q073: BO_T: **Burnout intro** Text

Not back

These questions are about how you have been doing during the last 4 weeks.

Q070: BO2: **Burnout - long** Single coded

Not back

How often have you been physically exhausted?

Normal

1 All the time *Fixed

2 A large part of the time *Fixed

3 Part of the time *Fixed

4 A small part of the time *Fixed

5 Not at all *Fixed

Q071: BO3: **Burnout** Single coded

Not back

How often have you been emotionally exhausted?

Normal

1 All the time *Fixed

2 A large part of the time *Fixed

3 Part of the time *Fixed

4 A small part of the time *Fixed

5 Not at all *Fixed

Q072: ST1: **Stress-long** Single coded

Not back

How often have you had problems relaxing?

Normal

1 All the time *Fixed

2 A large part of the time *Fixed

3 Part of the time *Fixed

4 A small part of the time *Fixed

5 Not at all *Fixed

Q074: CS1: **Cognitive stress** Single coded

Not back

How often have you had problems concentrating?

Normal

1 All the time *Fixed

2 A large part of the time *Fixed

3 Part of the time *Fixed

4 A small part of the time *Fixed

5 Not at all *Fixed

B005 - COPSOQ_III: COPSOQ-III QUESTIONNNAIRE End block

B004: PSC12: **Psychosocial Safety Climate** Begin block

Q020 - PSC12Intro: **PSYC-12 intro** Text

Not back

Now we have some questions about the psychological health and safety of your workplace.

Please answer with the best option provided.

Q021 - PSC1: **Workplace management** Single coded

Not back

In my workplace senior management acts quickly to correct problems/issues that affect employee's psychological health

By senior management, we mean leaders responsible for making strategic decisions

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q022: PSC2: **Decisive action** Single coded

Not back

Senior management acts decisively when a concern of an employee's psychological status is raised

By senior management, we mean leaders responsible for making strategic decisions

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q023: PSC3: **Support** Single coded

Not back

Senior management show support for stress prevention through involvement and commitment

By senior management, we mean leaders responsible for making strategic decisions

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q024:PSC4: **Priority** Single coded

Not back

Psychological well-being of staff is a priority for this organisation

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q025: PSC5: **Psychological health** Single coded

Not back

Senior management clearly considers the psychological health of employees to be of great importance

By senior management, we mean leaders responsible for making strategic decisions

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q026: PSC6: **Productivity** Single coded

Not back

Senior management considers employee psychological health to be as important as productivity

By senior management, we mean leaders responsible for making strategic decisions

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q027: PSC7: **Communication** Single coded

Not back

There is good communication at this organisation about psychological safety issues which affect me

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q028: PSC8: **Information** Single coded

Not back

Information about workplace psychological well-being is always brought to my attention by my manager/supervisor

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q029: PSC9: **Contribution** Single coded

Not back

My contributions to resolving occupational health and safety concerns in the organisation are listened to

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q030: PSC10: **Consultation** Single coded

Not back

Participation and consultation in psychological health and safety occurs with employees, unions and health and safety representatives in my workplace

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q031 - PSC11: **Involve** Single coded

Not back

Employees are encouraged to become involved in psychological safety and health matters

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

Q032: PSC_12: **Involve** Single coded

Not back

In my organisation, the prevention of stress involves all levels of the organisation

Normal

1 Strongly Disagree

2 Disagree

3 Neither agree or disagree

4 Agree

5 Strongly Agree

B004: PSC12: **Psychosocial Safety Climate** End block

B002: BB2: **Demographics** Begin block

Q012: **Migrant status** Single coded

Not back

Now we have a final few questions about you.

Were you born in New Zealand?

Normal

1 Yes

2 No

ASK IF CODE 2 AT Q12, CODE 1 SKIP TO Q14

Q013: **Recent migrant** Single coded

Not back

When did you first arrive to live in New Zealand?

Normal

1 Less than a year ago

2 1 - 5 years ago

3 More than 5 years ago

Q014: **Visa** Single coded

Not back

Which of these best describes your current citizenship, residency, or visa status in New Zealand?

Normal

1 New Zealand Citizen

2 New Zealand Permanent Resident

3 New Zealand Resident

4 Another visa type (please describe) **Open*

8 Don't know

Q015: **Carer responsibilities** Single coded

Not back

Do you provide care (outside of your work) to a child, or someone who needs help with day-to-day living?

This includes caring for a child, or a friend or family member who needs help with day-to-day living due to health or disability needs.

Normal

1 Yes

2 No

3 Don't know

Q075: Q096: **Night work** Single coded

Not back

In the last 4 weeks, did you do paid work for at least 3 hours between midnight and 5am?

Normal

1 Yes

2 No

Q084: **Work alone or with others** Single coded

Not back

Do you usually work alone, or with other people?

Normal

1 I usually work alone

2 About half the time I work alone and half the time I work with other people

3 I usually work with other people

4 Don't know

Q005: **Household income** Single coded

Not back

This question just helps to ensure we survey a wide range of people.

Which of the following best describes your annual household income before tax?

Please consider all sources of income including any salary or wages, self-employed income, child support payments, money from the Government, and investments, etc.

If you're unsure, your best estimate is fine.

Normal

1 $20,000 or less

2 $20,001 - $30,000

3 $30,001 - $50,000

4 $50,001 - $70,000

5 $70,001 - $100,000

6 $100,001 - $150,000

7 Over $150,000

B002 - BB2: Demographics End block

ISBN 978-0-473-71290-7 (online)

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