

Whanaungatanga Wellbeing Survey

2024 Survey Results Update

Prepared for Fire and Emergency New Zealand

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EXECUTIVE SUMMARY

The 2023 Whanaungatanga Wellbeing Survey was conducted to understand the mental health status and perceptions of organisational support of Fire and Emergency New Zealand employees. The survey was undertaken to capture baseline levels before the design and implementation of the Whanaungatanga Programme, an intervention programme funded by Movember. A follow-up survey was undertaken in March 2024 to assess the effectiveness of the programme; the results of this follow up survey are covered in this report.

The Whanaungatanga Programme is a Fire and Emergency initiative to improve the psychological wellbeing of career firefighters and operational managers. The programme is one of 15 international mental ill health or suicide prevention projects for veterans and first responders to receive funding from the Movember Foundation. Auckland University of Technology (AUT) has been subcontracted to evaluate the pilot programme in the Te Hiku region.

In March 2023, a census survey of all Fire and Emergency employees was conducted online. A total of 1,736 employees completed the survey, with a very high response rate from uniformed firefighters (approximately 70%). In 2024, a total of 1208 employees completed the repeat survey achieving a 73% follow-up response rate. This high response rate makes the survey data one of the highest-quality data sets on the mental health of first responders worldwide, as of May 2024.

The purpose of this report is to report the 2024 survey results and compare the levels of perceived organisational support, mental ill health, behavioural outcomes, and organisational attitudes between the baseline survey and the follow-up survey.

Whanaungatanga Programme Pilot

The Whanaungatanga Programme Pilot is taking place in the Te Hiku region, which encompasses Auckland and Whāngarei. Workshops were conducted with career firefighters and managers to collect insights for designing interventions aimed at improving various organisational support factors. Eight interventions were approved by the Governance Group to trial in the pilot region. Of those interventions, three were completed at the time of the survey while a further four were in different stages of being operationalised. It is important to note that these interventions have been in place for a relatively short duration, ranging from one to four months. Therefore, the results presented in this report provide early indications of the pilot interventions' outcomes, and further assessment over a longer follow-up period is warranted.

Whanaungatanga Programme Pilot Interventions

These approved interventions are at various stages of trial implementation in the pilot region:

- On Friday, December 15, 2023, the National Commander instructed to switch off the absence indicator organisation-wide, not only in pilot Te Hiku region.
- Initiatives were implemented to enhance connections between managers and firefighters, including identifying meeting-free Wednesdays as a Regional initiative to scale and refine. This intervention prioritised the visiting and connecting with crews on Wednesdays.
- Managers received leadership training, including Non-Violent Communication and SpeakEasy workshops. Additionally, a 6 Month Leadership development program for Te Hiku managers was fast-tracked, commencing in February 2024.
- Training and mediation sessions were provided to improve relationships between Auckland and Whangarei union locals and regional management.
- Undertook work to identify tasks managers could share with officers that would increase their autonomy and reduce manager workload.
- Efforts were made to improve and prioritise reward and recognition for firefighters, such as exploring a regional approach to reward and recognition and reviewing processes to identify those due for medals and honours.
- Insights from the programme were used to inform the development of an induction processes aimed to facilitate improved connections through more face-to-face interaction.

Changes in PTE Exposure

Findings from the 2023 survey highlighted that employees with high exposure to potentially traumatic events (PTEs) were at a significantly higher risk for mental ill health and the use of emotional numbing. **A significant reduction in self-reported exposure to PTEs was noted between 2023 and 2024, which could potentially account for changes in key mental health and organisational support indicators.** Of importance for interpretation is that the rates of PTE exposure in the last 12 months reduced to a greater degree in the comparison regions than in the pilot region. On the other hand, rates of PTE exposure in the last month reduced equally in both groups. Where applicable, the potential effects of this reduction in the last 12 month PTE exposure on key mental health indicators are reported.

Changes in Mental Health

The 2023 survey revealed high levels of mental ill health in Fire and Emergency employees. Rates of probable depression, anxiety and PTSD were substantially higher in the sample than in the general population, but comparable to those observed in other samples of first responders in New Zealand and internationally.

The interventions implemented in the pilot region are not expected to immediately impact the mental health indicators. These interventions have only been in place for a duration ranging from one to four months, and their focus is on addressing the upstream factors that influence mental health rather than directly targeting mental health outcomes. Consequently, it is likely to take some time before the downstream impact of sustainable improvements in organisational support factors on mental health can be determined.

- Overall, there is little change in the rates of mental health indicators between 2023 and 2024. Furthermore, there were no significant differences in the rate of change in these indicators between the pilot and comparison regions.
- Although there was a slight improvement in rates of depressive symptoms and probable PTSD, they remain much higher than general population estimates.
- Rates of anxiety symptoms remained consistent, while there was a small decrease in work-to-family conflict.
- The findings also showed small positive changes in potentially hazardous drinking patterns.
- Positive wellbeing indicators, such as life satisfaction and job satisfaction, remained consistent over time, as did rates of resilience and post-traumatic growth.
- High rates of mental ill health continue to be reported among communication centre employees, with a significant number reporting high levels of depressive symptoms, anxiety symptoms, and probable PTSD.

Changes in Perceived Organisational Support

The 2023 survey revealed varying perceptions of organisational support, with low ratings of perceived support from the organisation itself but higher ratings of perceived support from managers and co-workers. Negative views of organisational culture, competence, and performance were prevalent, but employees demonstrated strong commitment and willingness to reciprocate. Positive perceptions of organisational support correlated with better mental health outcomes and positive wellbeing indicators.

- The 2024 update showed small improvements in employee perceptions of organisational and manager support. Rates of perceived organisational support and manager support increased slightly, and rates of perceived support from personnel and co-workers remained stable. Perceptions of support between uniformed and non-uniformed employees remained low.
- There were also small improvements in perceptions of organisational competence, accountability, psychological safety, and preparedness to serve.
- Employees maintained a strong belief in reciprocity between the organisation and themselves. There was an increase in feelings of gratitude towards the organisation and a small increase in pride in membership.
- Employee attitudes towards the organisation showed some improvement, with increased commitment, reduced cynicism towards managers, and a lower intention to leave. Presenteeism rates decreased, indicating fewer employees attending work while unwell, while rates of extra-role performance remained consistently high.

- The pilot region showed slightly greater improvements in several indicators compared to the comparison regions, although these differences were small. For example, there were slightly higher increases in rates of high perceived organisational support and manager support in the pilot region. Similarly, the increase in perceived preparedness to serve and gratitude towards the organisation was slightly greater in the pilot region. Although these differences were small, they demonstrate promising outcomes from the Whanaungatanga Programme pilot interventions.

Feedback on Workplace Interventions

The 2024 follow-up survey included intervention evaluation questions for participants from the pilot region and all participants were able to leave an open-ended comment about changes they had observed in the organisation over the last 12 months.

In response to the evaluation questions, Te Hiku firefighters and managers showcased strong support and approval for the interventions implemented in the Whanaungatanga Programme. A majority of participants recommended their implementation across the entire organisation. Many participants also found the interventions to be meaningful and expressed optimism about their potential for success. However, there was a degree of scepticism expressed by some participants regarding whether the organisation would fully implement the interventions.

The open-ended text question also offer valuable insights into changes in the organisation over the last 12 months:

- Employees generally expressed positive views about the interventions, with satisfaction regarding the removal of the absence indicator relieving pressure for employees, particularly those with young families. Increased interactions with managers on meeting free Wednesdays were seen as highly beneficial, contributing to a positive shift in the organisational culture regarding psychological wellbeing and support awareness.
- Firefighters and managers in the Te Hiku region reported substantially higher percentages of positive comments compared to those in comparison regions. Managers, in general, had more positive responses than firefighters across regions.
- Other uniformed employees, which include communication centre employees, stood out with a low percentage of positive comments in the open text responses.
- In relation to the interventions, negative comments often centred around the process of their implementation rather than the interventions themselves, expressing scepticism about the longevity of changes and concerns about insincerity or inappropriate use of meetings-free Wednesdays.
- Other negative comments primarily related to broader ongoing issues within the organisation, such as allegations of bullying, perceived poor management, staffing shortages leading to long working hours, and a perceived lack of accountability and alignment with stated organisational values. Firefighters felt that higher management, particularly those in National Headquarters, had a limited understanding of the job's reality and prioritised image and ideology over the core purpose of serving the public.

Conclusions

The findings from the 2023 baseline survey and the 2024 follow-up survey of the Whanaungatanga Programme provide valuable insights into rates of mental ill health and perceptions of organisational support among Fire and Emergency employees. The interventions implemented in the pilot region showed some positive outcomes, including small increases in perceived organisational and manager support. The open-ended feedback highlighted both positive experiences and areas for improvement, with employees expressing satisfaction with certain aspects of the interventions but also raising concerns about implementation and broader organisational issues.

While rates of poor mental health across the organisation remain concerning, the results indicate positive shifts in perceptions of the organisation after early implementation of the program. Further movement in organisational perception indices are likely with further roll out of the program, and potentially these can result in improvement in the mental ill health indices.

BACKGROUND

The Whanaungatanga Programme is a Fire and Emergency initiative to improve the psychological wellbeing of career firefighters and operational managers. It aims to promote connection, trust, and a strong sense of value and belonging. The programme is one of 15 international mental ill health or suicide prevention projects for veterans and first responders to receive funding from the Movember Foundation¹ to support the development and rigorous evaluation of the programme.

The development of the Whanaungatanga Programme uses a positive participatory approach² that draws on insights from career firefighters and operational managers gathered through organisational change workshops. The initial pilot programme has been developed for and delivered to career firefighters and managers in the Te Hiku region (encompassing Auckland and Whāngarei).

Auckland University of Technology (AUT) has been subcontracted to conduct two evaluations for the pilot programme. The first evaluation assesses change in individual outcomes through an electronic survey at baseline and after implementation of the interventions. The second evaluation aims to understand changes in organisational practice through interviews and focus groups with operational managers.

Additionally, the University of Canberra, which was appointed by Movember as the evaluator, will perform a Return on Investment (ROI) evaluation and a meta-evaluation of all 15 Movember-funded programmes, including the Whanaungatanga Programme.

To ensure the pilot evaluation is robust, Fire and Emergency have provided additional funding to extend the survey to all employees. This extension allows for a comparison of outcomes between the pilot group of career firefighters and managers in Te Hiku and career firefighters and managers in other regions, as well as a non-uniformed group.

The Whanaungatanga Programme has been endorsed by Fire and Emergency New Zealand's Executive Leadership Team (ELT), as well as the New Zealand Professional Firefighters' Union (NZPFU), the Auckland and Whangarei Local Union Committees (ALC, WLC), the Fire and Emergency Commanders' Association (FECA), the Public Services Association (PSA), and the Rural Professionals Association (RPA).

The purpose of this report is to present data from the follow up survey in March 2024, therefore looking at changes since the initial baseline survey implemented in March 2023.

Whanaungatanga Programme Pilot Interventions

These approved interventions are at various stages of trial implementation in the pilot region:

- On Friday, December 15, 2023, the National Commander instructed to switch off the absence indicator organisation-wide, not only in pilot Te Hiku region.
- Initiatives were implemented to enhance connections between managers and firefighters, including identifying meeting-free Wednesdays as a Regional initiative to scale and refine. This intervention prioritised the visiting and connecting with crews on Wednesdays.
- Managers received leadership training, including Non-Violent Communication and SpeakEasy workshops. Additionally, a 6 Month Leadership development program for Te Hiku managers was fast-tracked, commencing in February 2024.
- Training and mediation sessions were provided to improve relationships between Auckland and Whangarei union locals and regional management.
- Undertook work to identify tasks managers could share with officers that would increase their autonomy and reduce manager workload.
- Efforts were made to improve and prioritise reward and recognition for firefighters, such as exploring a regional approach to reward and recognition and reviewing processes to identify those due for medals and honours.
- Insights from the programme were used to inform the development of an induction processes aimed to facilitate improved connections through more face-to-face interaction.

Whanaungatanga Wellbeing Survey

The purpose of the Whanaungatanga Wellbeing Survey is to gain insight into the current levels of mental health and perceptions of organisational support and to assess the effectiveness of organisational change initiatives in improving these outcomes.

The baseline survey in 2023:

- Determined the baseline levels of perceived organisational support among uniformed and non-uniformed personnel and managers. This was found to be variable but in general, support from the organisation was perceived to be low, while perceived manager support was slightly higher, and perceived support from co-workers was high.
- Determined the baseline levels of mental health (e.g., post-traumatic stress disorder [PTSD], depression, anxiety, resilience, posttraumatic growth) among uniformed and non-uniformed personnel and managers. We found that rates of mental ill health were higher than observed in the general population, with certain groups such as communication centre employees particularly affected.

- Determined the relationship between perceived organisational support and factors including mental ill health, behavioural outcomes (e.g., presenteeism, extra-role performance), and organisational attitudes (e.g., organisational commitment, cynicism, turnover intention), while controlling for other factors (e.g., demographic, occupational, exposure to potentially traumatic events). We found a strong relationship between organisational factors and indicators of mental ill health.

The objective of the follow up case-control survey in 2024 is to:

- Determine differences in perceived organisational support, mental ill health, behavioural outcomes, and organisational attitudes between the baseline survey and the follow-up survey.
- To determine the extent to which these differences are explained by the pilot Whanaungatanga Programme.

Survey development

The comprehensive survey was developed by the AUT research team in collaboration with a technical advisory group from Fire and Emergency, the late Professor Robert Eisenberger (1943-2022), and Dr Zihan Liu from the University of Houston. Professor Eisenberger was a renowned expert in organisational psychology, management, and leadership, known for his influential work on perceived organisational support (POS)³. The survey underwent review by clinical psychologists and subject matter experts in first responder trauma research.

The survey was specifically designed to address the unique challenges faced by first responders, drawing on the Job Demands-Resources (JD-R) Model⁴ and POS Theory⁵. The JD-R model explains how job demands and resources can impact employee well-being and work outcomes. It recognises that high workload, time pressure, and exposure to potentially traumatic events (PTEs) can lead to mental health issues without sufficient organisational and social support. POS Theory emphasises the significance of employees' perceptions of organisational support and feeling valued.

These frameworks provide a comprehensive understanding of the distinct work demands and pressures experienced by first responders, guiding the organization in developing targeted strategies to

support its employees in the face of repeated exposure to PTEs.

Survey testing

The survey underwent pilot testing by the technical advisory group, firefighters, managers, non-operational employees, clinical psychologists, and subject matter experts in the first responder research field. Feedback received from these stakeholders informed adjustments to the wording, order, and presentation of survey questions.

Approvals

Ethical approval for the Whanaungatanga Wellbeing Survey was granted by the Auckland University of Technology Ethics Committee (AUTC) on January 17, 2023, with reference number 22/320. AUTC approved an amendment to include all Fire and Emergency employees in the extended sample on February 2, 2023. The final survey was endorsed by Fire and Emergency on February 2, 2023.

An amendment request was subsequently submitted to AUTC on December 14, 2023, to include additional evaluation questions for Time Point 2. AUTC approved the amendment for these additional questions on January 16, 2024.

Survey implementation

2023 Time Point 1

The survey targeted employees of Fire and Emergency New Zealand, both operational and non-operational employees. Two distribution lists were created based on HRIS information:

- Career firefighters and managers in the Te Hiku region
- All other employees.

Invitations including a Participant Information Sheet and a link to the consent form were sent to each list by the Fire and Emergency communications team. Due to issues with the HRIS database, the exact number of invitations sent to each group could not be determined.

The survey was first launched with a small number of career firefighters on March 7, 2023, and then opened to all eligible participants on March 9, 2023. The survey closed on March 30, 2023, but a small extension was granted until April 2, 2023. A reminder was sent to participants who had consented but not completed the survey.

2024 Time Point 2

Participants from Time Point 1 who had consented to be contacted were eligible for the follow-up survey at Time Point 2. The invitation was sent to eligible participants by the AUT research team on March 7, 2024, and the survey remained open until April 2, 2024. Four reminders were sent to participants who had not completed the survey.

Survey analysis

McNemar's Test was used to compare the prevalence of key indicators between the two timepoints, analysing responses from the same participants. Through a Mixed Between-Within Subjects ANOVA, we investigated whether changes differed between the pilot group (Te Hiku Firefighters & Managers) and the comparison

group (All other FF & Managers). Additionally, Mixed Models allowed us to assess whether changes over time differed between the pilot and comparison groups, while accounting for variations in the last 12-month PTE exposure between 2023 and 2024.

Structure of the Report

This report provides an update on key indicators from the 2024 follow-up Whanaungatanga Wellbeing Survey. Rather than presenting full prevalence data and associations between multiple variables like the 2023 report, this report focuses on changes between the baseline and follow-up surveys (Research Objective 4).

The report begins by presenting findings on changes in mental health followed by changes in the perceptions of organisational factors. Each section includes a brief

overview of previous results from 2023. Finally, the report presents findings related to feedback on the Whanaungatanga Programme interventions from survey evaluation questions and open-text survey responses.

For further details on each survey indicator, please refer to the Glossary of Survey Indicators on page 21. Data tables for all indicators are presented in the appendices.

Interpretation of the survey findings

The figures presented in this report relate only to those that completed both surveys ($n = 1,208$) and therefore the results presented for 2023 may differ from those presented in the 2023 Detailed Report.

Medians and interquartile range

The median and interquartile range (IQR) are two statistical measures that describe the centre and spread of a set of data. The median is the middle value in a set of numbers when arranged in order. The IQR is the range of values that includes the middle 50% of the data. Neither measure is affected by outliers, which are extreme values that can skew the mean.

Prevalence and 95% confidence intervals

Prevalence is the percentage of people in a population who have a specific outcome. Confidence intervals (CIs) estimate the range of values where the true prevalence of the outcome is likely to fall, with a 95% level of confidence.

Changes between 2023 and 2024

When examining changes between Time Point 1 and Time Point 2, a significance level of $p < .05$ (*) indicates a high probability that a difference exists. It is important to note that this significance level does not indicate the size of the difference.

MENTAL HEALTH

Mental health is a state of wellbeing that allows individuals to manage stress, fulfil their responsibilities, work productively, and contribute to their communities⁶. Mental health is not just the absence of mental illness; it is a continuum that ranges from optimal mental health to severe mental ill health.

There is growing evidence that first responders are at increased risk of mental ill health, suicide, and use of maladaptive coping mechanisms compared to the general population^{7,8}, in part due to frequent exposure to potentially traumatic events (PTEs)⁹⁻¹³. Baseline results from 2023 agreed with this wider research, with data showing higher prevalence of mental ill health in NZ firefighters compared to the general population. While exposure to PTEs is an unavoidable part of firefighting, research also suggests that organisational factors may buffer the impact of exposure to PTEs¹⁴. Improving perceived organisational factors may therefore help to bring about improvements in the mental wellbeing of employees. Here we report on changes in the mental wellbeing of employees over a 12-month period.

In this section, we provide an update on various indicators related to mental health, including depression, anxiety, and PTSD. We also examine maladaptive coping mechanisms, such as alcohol use and emotional numbing, as well as positive mental health indicators like life satisfaction, job satisfaction, resilience, and post-traumatic growth. Results are presented for the entire survey sample, unless otherwise stated. For more detailed insights on differences within occupational roles and comparisons with international first responder research, please refer to the 2023 Detailed Report¹⁵.

Baseline Results

The baseline survey results from 2023 revealed that Fire and Emergency employees experienced elevated levels of mental ill health. The rates of moderate-to-severe symptoms of depression (24.5%), anxiety (15.1%), and probable PTSD (12.7%) were higher compared to the general population but were comparable with findings from similar studies conducted on first responders in both New Zealand and globally. The survey also identified high rates of maladaptive coping mechanisms, such as alcohol use and emotional numbing. Notably, communication centre employees demonstrated higher rates of depressive symptoms (53.4%), anxiety symptoms (43.1%), and probable PTSD (30.9%) compared to other roles within the organisation. Additionally, the survey highlighted a correlation between length of service and an increased prevalence of depressive symptoms and probable PTSD among the participants.

A detailed account of these baseline results, along with associations with PTEs and organisational factors, are presented in the Whanaungatanga Wellbeing Survey 2023 Detailed Report¹⁵.

2024 Update

It is important to note that the interventions implemented in the pilot region are not expected to immediately impact the mental health indicators. These interventions have only been in place for a duration ranging from one to four months, and their focus is on addressing upstream factors that influence mental health rather than directly targeting mental health outcomes. Consequently, it may take some time to observe the downstream impact of improvements in organisational support factors.

Furthermore, findings from the 2023 survey highlighted that employees with high exposure to PTEs were at a significantly higher risk for mental ill health and the use of emotional numbing. **A significant reduction in self-reported exposure to PTEs was noted between 2023 and 2024 (Figure 1), which could potentially account for changes in key mental health and organisational support indicators.** Where applicable, the potential effects of this reduction in PTE exposure on key mental health indicators are reported.

- Rates of high exposure to PTEs in the last month (≥ 6 PTEs) reduced from 20.8% in 2023 to 14.0% in 2024. This reduction was evident in both the pilot and comparison regions.
- Similarly, rates of high exposure to PTEs in the last 12 months (≥ 31 PTEs) reduced from 37.4% in 2023 to 30.3% in 2024. **Importantly, this reduction was greater for career firefighters and managers in the comparison group**, where the rates decreased from 41.5% in 2023 to 28.3%, compared to career firefighters and managers the pilot region where the rates decreased from 37.5% in 2023 to 35.3%.

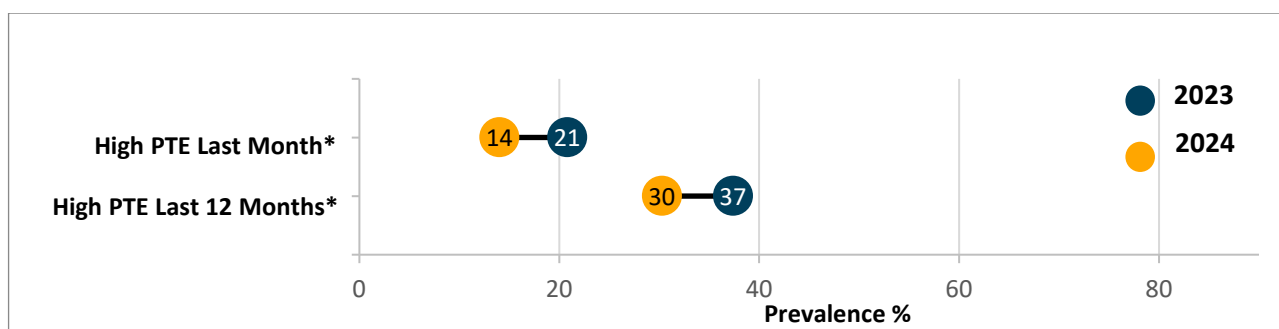


Figure 1

Change in Prevalence of High Potentially Traumatic Event Exposure, 2023 to 2024

* Statistically significant difference in prevalence between 2023 and 2024 ($p < .05$)

Mental ill health

Overall, the rates of mental health indicators remained relatively stable between 2023 and 2024, with a slight improvement observed in the rates of probable post-traumatic stress disorder (PTSD) and work-to-family conflict (Figure 2). It is important to note that these rates remain higher than those observed in the general population. Nevertheless, they are consistent with international rates of mental ill-health among first responders.

- The rates of moderate-to-severe depressive symptoms showed a slight reduction from 25.8% in 2023 to 23.5% in 2024, but this change was not statistically significant. While this rate is still significantly higher than the estimated 7.4% of American adults who experienced moderate-to-severe depressive symptoms in 2017¹⁶, it is comparable to the estimated 20.2% of Canadian firefighters reported in 2018¹⁷.
- Rates of moderate-to-severe anxiety symptoms remained stable between 2023 and 2024, with rates of 14.8% and 14.3% respectively. This rate is substantially higher than the estimated 6.1% of American adults who experienced moderate-to-severe symptoms of anxiety in 2019¹⁶, and is slightly higher than the estimated 11.7% of Canadian firefighters reported in 2018¹⁷.
- A small decrease was observed in the rates of probable PTSD, declining from 12.9% in 2023 to 10.7% in 2024. This reduction was evident for career firefighters and managers in both the pilot and comparison regions and can be partly attributed to a decrease in exposure to PTEs during the same period. This rate aligns with other estimates of PTSD in first responders, such as 13.5% of Canadian firefighters¹⁷, 14% of New Zealand police¹⁸, and 10% of New Zealand military personnel¹⁹.
- Additionally, there was a moderate decrease in work-to-family conflict, with rates decreasing from 28.2% in 2023 to 20.3% in 2024. This was consistently observed for career firefighters and managers in both the pilot and comparison regions and can also be attributed, in part, to a reduction in exposure to PTEs during the survey period.
- Mental ill health indicators among communication centre employees remained unchanged at concerning levels. A significant number of employees reported moderate-to-severe depressive symptoms (53.7%), moderate-to-severe anxiety symptoms (41.5%), and met the threshold for probable PTSD (30.0%). These findings highlight the ongoing need for support and intervention to address the mental health challenges faced by communication centre employees.

Maladaptive coping mechanisms

Findings suggest a minor positive change in potentially hazardous drinking patterns, although rates remain relatively high compared to the general population (Figure 2). On the other hand, rates of high emotional numbing behaviours remained consistent over time.

- There was a slight improvement in the rates of potentially hazardous drinking patterns, with rates decreasing from 64.4% in 2023 to 60.1% in 2024. This reduction was observed in both the pilot and comparison regions.
- Rates of high emotional numbing behaviours remained stable between 2023 and 2024, with rates of 28.8% and 28.7% respectively.

Positive wellbeing

Findings highlight the consistent levels of positive wellbeing indicators, including life satisfaction, job satisfaction, resilience, and post-traumatic growth (Figure 2).

- Rates of high life satisfaction remained consistent over time, with values of 32.9% in 2023 and 33.5% in 2024.
- Similarly, rates of high job satisfaction also remained stable between 2023 and 2024, with rates of 42.4% and 44.4% respectively.
- Rates of high resilience and high post-traumatic growth showed no significant changes over time. The prevalence of high resilience was 33.2% in 2023 and 33.3% in 2024, while the prevalence of high post-traumatic growth was 29.7% in 2023 and 30.2% in 2024.

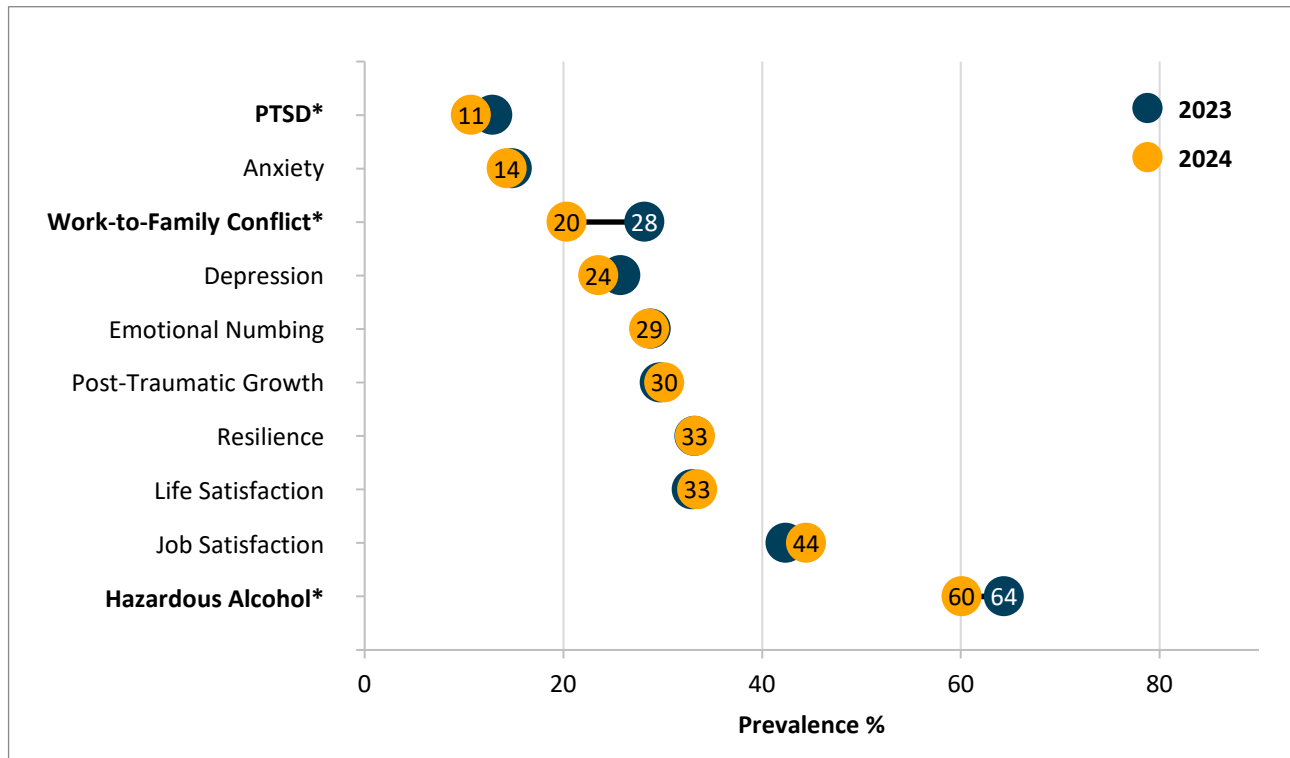


Figure 2
Change in Prevalence of Mental Ill Health Indicators, 2023 to 2024
* Statistically significant difference in prevalence between 2023 and 2024 ($p < .05$)

ORGANISATIONAL FACTORS

Organisational psychosocial factors play an important role in employees' experiences at work. These factors encompass a wide range of elements within an organisation that directly influence various aspects of employees' daily professional lives, including their job satisfaction, motivation, wellbeing, and overall engagement. Research conducted among first responder populations has demonstrated that organisational factors play a role in mitigating the negative effects of exposure to potentially traumatic events (PTEs) on mental ill health and turnover intention^{14,20}.

In this section, we provide an update on the perception of organisational factors, including organisational climate and performance, as well as attitudes towards the organisation and employee behaviours (such as presenteeism and extra-role performance) based on the 2024 survey. Results are presented for the entire survey sample, unless otherwise stated. For more detailed insights on differences within occupational roles and their relationship with mental health outcomes, please refer to the 2023 Detailed Report¹⁵.

Baseline Results

Perceived organisational support is a key aspect of the Whanaungatanga Programme, reflecting how much employees believe their organisation values their contributions and cares about their wellbeing. Findings from the 2023 survey revealed that perceptions of support from the organisation itself were low (13.2%), but higher from managers (42.2%) and co-workers (80.7%). Uniformed managers had more positive perceptions of support compared to uniformed firefighters, with lower ratings of support from the organisation (6.6%) and managers (35.2%) among firefighters. Positive perceptions of organisational support decreased with the length of service. Other perceptions of the organisation revealed mixed results, with some employees maintaining negative views of organisational culture, competence, and performance, while also demonstrating strong commitment and willingness to reciprocate. Positive perceptions of organisational support and performance were linked to lower rates of mental ill health and maladaptive coping mechanisms, as well as positive wellbeing indicators, even after accounting for PTE exposure.

A detailed account of these baseline results, along with associations with PTEs and mental health, are presented in the Whanaungatanga Wellbeing Survey 2023 Detailed Report¹⁵.

2024 Update

Organisational performance

Employee perceptions of organisational performance refer to the views, attitudes, and opinions that employees have about their organisation's ability to achieve its objectives. The findings indicate overall positive trends in employee perceptions of organisational and manager support. Additionally, while rates remain low, there were improvements in perceptions of organisational competence, accountability, psychological safety, and perceived preparedness to serve (Figure 3).

- The rates of high perceived organisational support increased from 11.8% in 2023 to 14.7% in 2024. Taking into account changes in PTE exposure, the small increase was even greater for career firefighters and managers in the pilot region (adjusted mean score 2.8 in 2023 to 3.3 in 2024) compared to career firefighters and managers in the comparison regions (adjusted mean score 2.6 in 2023 to 2.9 in 2024).
- The rates of high perceived manager support also saw an increase from 39.4% in 2023 to 45.3% in 2024. Similarly, after considering changes in PTE exposure, the small increase was greater for career firefighters and managers in the pilot region (adjusted mean score 3.9 in 2023 to 4.3 in 2024) compared to career firefighters and managers in the comparison regions (adjusted mean score 4.2 in 2023 to 4.3 in 2024).
- The high perceptions of support from personnel (79.4% to 81.2%) and co-workers (81.3% to 82.7%) remained stable between 2023 and 2024.
- Likewise, perceptions of support from uniformed and non-uniformed employees remained low between 2023 and 2024. Specifically, only a small percentage of uniformed employees reported high perceptions of support from their non-uniformed counterparts (9.4% in 2023 and 10.5% in 2024). A similar proportion of non-uniformed employees reported high perceptions of support from their uniformed counterparts (13.3% in 2023 and 14.3% in 2024).

- The rates of high perceived preparedness to serve increased from 22.1% in 2023 to 25.5% in 2024. Taking into account changes in PTE exposure, the small increase was even greater for career firefighters and managers in the pilot region (adjusted mean score 3.0 in 2023 to 3.3 in 2024) compared to career firefighters and managers in the comparison regions (adjusted mean score 2.9 in 2023 to 3.0 in 2024).
- Although the rates remained low, improvements were observed in the rates of high perceptions of organisational competence (21.5% to 26.3%), accountability (7.9% to 9.6%), and perceived psychological safety (28.5% to 36.7%).

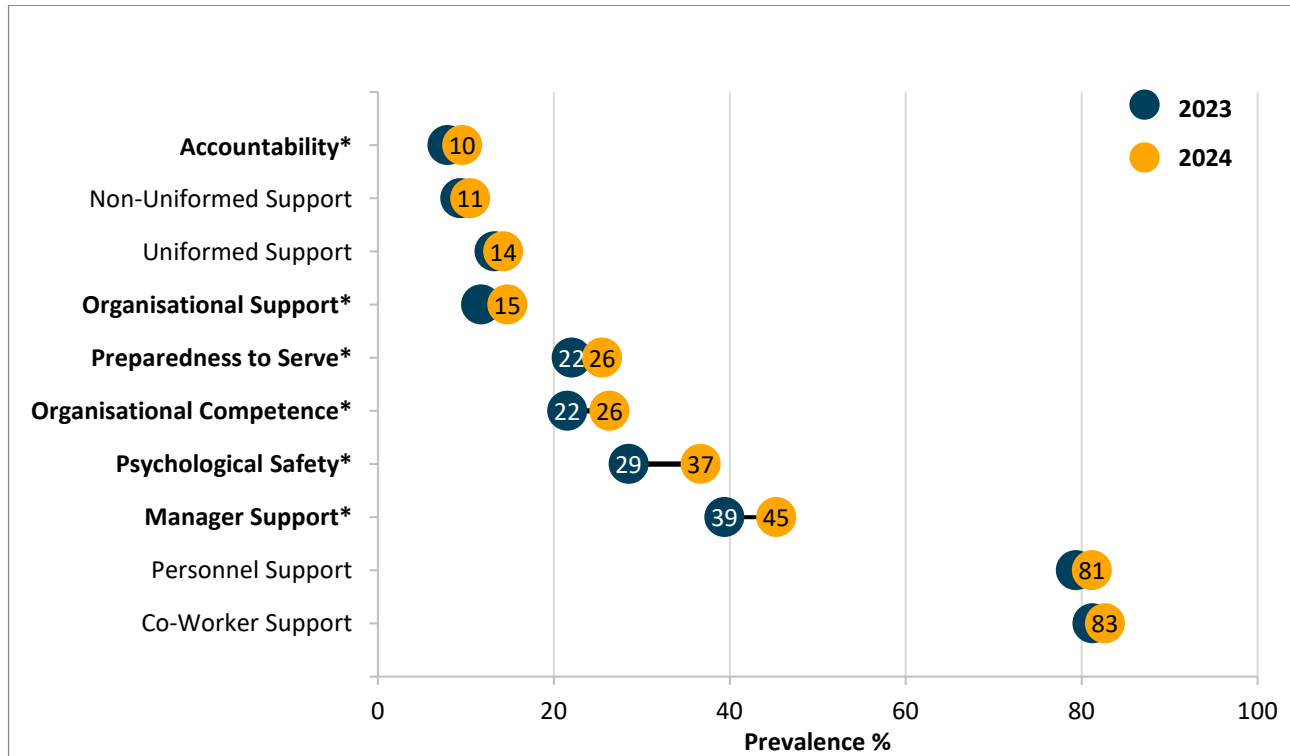


Figure 3
Change in Prevalence of Organisational Performance Indicators, 2023 to 2024
* Statistically significant difference in prevalence between 2023 and 2024 ($p < .05$)

Central emotions

Central emotions refer to the emotional connection that employees have towards their organisation, encompassing feelings of pride and commitment. Findings show that belief in reciprocity between the organisation and employees remained stable over time. However, there was an increase in gratitude towards the organisation, particularly in the pilot region, and a small increase in pride in membership across all regions (Figure 4).

- A strong belief in reciprocity between the organisation and employees remained stable over time, with 81.0% in 2023 and 80.2% in 2024 reporting a high affective exchange ideology.
- There was an increase in strong feelings of gratitude towards the organisation, rising from 21.1% in 2023 to 28.3% in 2024. Taking into account changes in PTE exposure, the moderate increase was greater for career firefighters and managers in the pilot region (adjusted mean score 3.5 in 2023 to 4.1 in 2024) compared to career firefighters and managers in the comparison regions (adjusted mean score 3.5 in 2023 to 3.8 in 2024).
- Additionally, there was a small increase in high pride in membership, which rose from 71.5% in 2023 to 77.2% in 2024. This improvement was observed for career firefighters and managers across both the pilot and comparison regions.

Organisational attitudes

Employee attitudes towards the organisation range from positive, such as having an emotional attachment and loyalty towards the organisation, to negative, such as feelings of cynicism. The findings reveal positive improvements in

employee attitudes towards the organisation, including increased commitment, reduced intention to leave, and a more positive perception of managers (Figure 4).

- The rates of high commitment towards the organisation increased from 30.5% in 2023 to 35.6% in 2024. After accounting for changes in PTE exposure, this improvement was observed for career firefighters and managers across both the pilot and comparison regions.
- Although there was no change in rates of cynicism towards the organisation, there was a small improvement in cynicism towards managers (22.2% to 18.5%). After accounting for changes in PTE exposure, this improvement was observed for career firefighters and managers across both the pilot and comparison regions.
- Similarly, there was a reduction in the intention to leave the organisation, with a decrease from 17.1% in 2023 to 14.2% in 2024. After accounting for changes in PTE exposure, this improvement was observed for career firefighters and managers across both the pilot and comparison regions.

Behavioural outcomes

Behavioural outcomes refer to the behaviours exhibited by employees in regard to their performance and presence at work. Findings indicate there was a decrease in presenteeism rates, showing that fewer employees attended work while unwell, while the rates of extra-role performance remained consistently high (Figure 4).

- The rates of presenteeism decreased from 34.1% in 2023 to 29.1% in 2024, indicating a reduction in employees coming to work despite being unwell, physically or mentally. Taking into account changes in PTE exposure, the small decrease was slightly smaller for career firefighters and managers in the pilot region (adjusted mean score 3.1 in 2023 to 3.0 in 2024) compared to career firefighters and managers in the comparison regions (adjusted mean score 3.2 in 2023 to 2.9 in 2024).
- However, there were no changes observed in the rates of extra-role performance, which remained consistently high at 70.7% in 2023 and 70.9% in 2024.

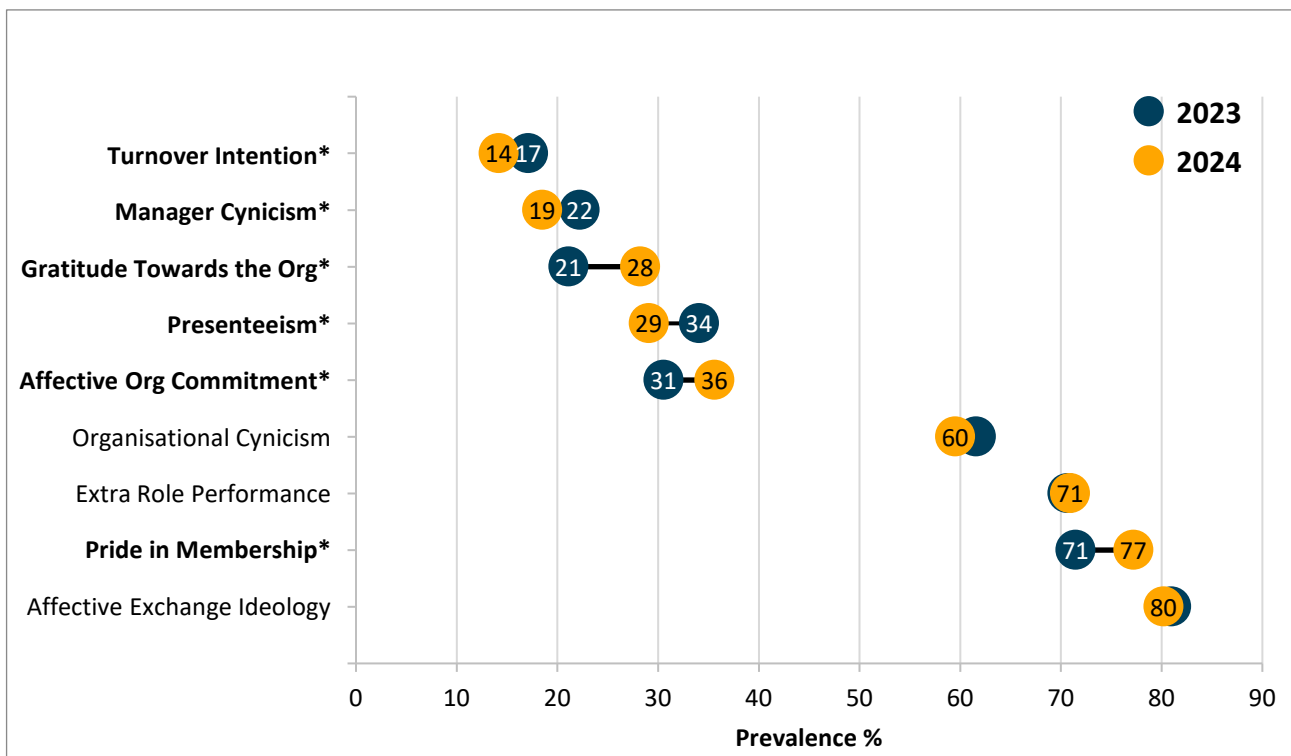


Figure 4
Change in Prevalence of Organisational Factors, 2023 to 2024
* Statistically significant difference in prevalence between 2023 and 2024 ($p < .05$)

FEEDBACK ON WORKPLACE INTERVENTIONS

Following the baseline survey results, workshops were conducted with firefighters and managers in the Te Hiku region to gather insights for designing interventions to improve a range of organisation factors. The approved interventions are currently being trialled in the pilot region, and if successful, may become permanent within Fire and Emergency.

In this section, we present the results of the intervention evaluation questions from the survey, which were completed by participants in the pilot region, including Te Hiku managers and firefighters. Additionally, we offer key insights from the open-text comments provided by participants at the conclusion of the survey. The accompanying qualitative report provides a more detailed analysis of the perceptions of workplace interventions, particularly from managers.

Whanaungatanga Programme Pilot Interventions

These approved interventions are at various stages of trial implementation in the pilot region:

- On Friday, December 15, 2023, the National Commander instructed to switch off the absence indicator organisation-wide, not only in pilot Te Hiku region.
- Initiatives were implemented to enhance connections between managers and firefighters, including identifying meeting-free Wednesdays as a Regional initiative to scale and refine. This intervention prioritised the visiting and connecting with crews on Wednesdays.
- Managers received leadership training, including Non-Violent Communication and SpeakEasy workshops. Additionally, a 6 Month Leadership development program for Te Hiku managers was fast-tracked, commencing in February 2024.
- Training and mediation sessions were provided to improve relationships between Auckland and Whangarei union locals and regional management.
- Undertook work to identify tasks managers could share with officers that would increase their autonomy and reduce manager workload.
- Efforts were made to improve and prioritise reward and recognition for firefighters, such as exploring a regional approach to reward and recognition and reviewing processes to identify those due for medals and honours.
- Insights from the programme were used to inform the development of an induction processes aimed to facilitate improved connections through more face-to-face interaction.

Key Insights from Evaluation Questions

The 2024 follow-up survey consisted of nine questions that were specifically designed for participants from the pilot region. The aim was to gather their views and feedback on the implemented interventions. These questions focused on participants' opinions about the design process and the potential for successful outcomes from the interventions.

Intervention design

Overall, the findings indicate strong support for the interventions, with most participants approving and recommending their implementation. Additionally, many participants considered the interventions to be meaningful, new, and valuable, although there was less agreement regarding the user-friendliness of the design process (Figure 5).

- A strong level of support and approval was observed for the interventions, with approximately two-thirds (67%) of participants agreeing or strongly agreeing that they approved of the interventions and recommended their implementation (68%). For both indicators, less than 1% of participants disagreed or strongly disagreed that they approved of the interventions and recommended their implementation.
- Additionally, 61% of participants found the interventions designed to support wellbeing to be meaningful, while just 2.5% disagreed or strongly disagreed.

- About half of the participants (52%) agreed or strongly agreed that the interventions were perceived as new, different, or interesting (2.7% disagreed or strongly disagreed). Moreover, 51% of participants believed that the interventions held value compared to other existing approaches or strategies used by the organisation to provide organisational support (1.7% disagreed or strongly disagreed).
- In terms of user-friendliness, 45% of participants agreed or strongly agreed that the overall approach to the design of the interventions was user-friendly, while less than 1% disagreed or strongly disagreed.

Potential for Success

Participants expressed positive views on the potential success of the interventions. However, there was some scepticism regarding the organisation's implementation of the interventions, with a lower percentage expressing confidence and a small percentage expressing cynicism (Figure 5).

- Approximately 52% of the participants agreed or strongly agreed that the outcomes of the interventions were likely to be relevant and significant (2.7% disagreed or strongly disagreed). Similarly, 50% agreed or strongly agreed that the outcomes had the potential to be better than other methods for creating organisational change (0.6% disagreed or strongly disagreed).
- In contrast, only 24% of participants agreed or strongly agreed that the interventions were likely to be implemented by the organisation, while 8% of participants expressed a high degree of cynicism towards their implementation (disagreed or strongly disagreed).

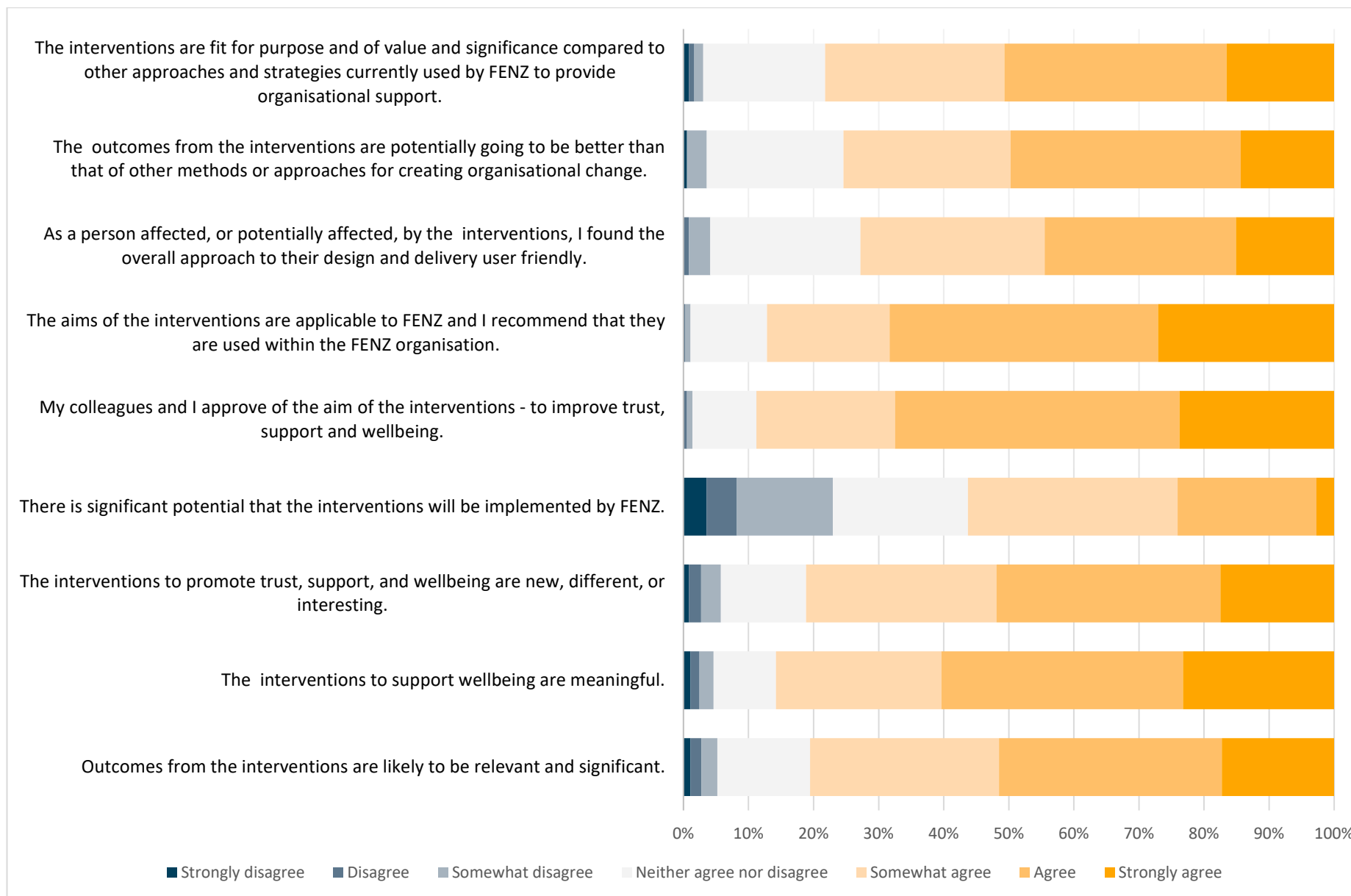


Figure 5

Views and perceptions of the Whanaungatanga Programme Interventions (Te Hiku region managers and firefighters only)

Key Insights from Open-Text Comments

Employees were also asked if they wished to share any other views regarding changes (either positive or negative) within Fire and Emergency within the last 12 months. This was in the form of an open-response text question where employees could write freely. While the open text responses are explored more fully in a qualitative report accompanying this one, a summary is provided below.

- The feedback from employees about the Whanaungatanga Programme pilot interventions was largely very positive with several comments about employees feeling hopeful for the first time in several years.
- While in the 2023 survey, many employees thanked the research team for the opportunity to participate in the survey, at the second time-point, it was more common for gratitude to be expressed towards Fire and Emergency for engaging with the Whanaungatanga programme.
- Nation-wide, employees expressed satisfaction with the removal of the absence indicator, which alleviated significant pressure, especially for those with young families. Employees also mentioned a positive shift in the organisational culture regarding psychological wellbeing and an increased awareness of the need for support.
- Firefighters within the pilot region noted the benefits of increased interaction with their managers due to the introduction of meeting free Wednesdays. Many felt this was beginning to repair the relationship between firefighters and middle management.
- Sentiment analysis revealed that firefighters and managers in the Te Hiku region wrote a higher percentage of positive comments (48%, or 61% when combined with neutral comments) compared to firefighters and managers in the control region (16% positive). In comparison, other uniformed employees (including managers and communication centre employees) and non-uniformed employees wrote 12% and 28% positive comments, respectively.
- Generally, managers were more positive in their open text responses compared to firefighters, particularly within the Te Hiku region.
- Other uniformed employees across all regions stood out with a low percentage (12%) of positive comments in the open text responses, including other uniformed managers (18%), communication centre employees (16%), and other uniformed employees (9%).
- Negative comments about the interventions often centred around their implementation rather than the interventions themselves. Some employees expressed scepticism about the longevity of the changes or felt that managers were insincere or using Wednesdays for inappropriate purposes such as drills.
- While many firefighters appreciated the increased interactions with their Group Managers, there was a perception that higher management (above the level of District Managers, particularly those in National Headquarters) lacked understanding of the job's reality and prioritised image and ideology over the core purpose of serving the public.
- Most negative comments were related to ongoing issues or changes within the organisation rather than directly related to the interventions. These included allegations of bullying, perceived poor management, staffing shortages leading to long working hours, and complaints about the lack of accountability and disconnection from the stated organisational values.

GLOSSARY OF SURVEY INDICATORS

Mental Health Indicators

Alcohol is one of the most widely consumed psychoactive drugs in the world. It is a common maladaptive coping mechanism during times of high stress or trauma. To assess alcohol consumption patterns, the survey employed the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C), a 3-item scale. The scale's scores range from 0 to 12, and scores of 4 or higher for men and 3 or higher for women indicate potentially hazardous drinking patterns. The survey also reports rates of heavy episodic drinking (i.e., consuming six or more drinks on one occasion) on at least a monthly or weekly basis.

Anxiety is a mental ill health condition characterised by apprehension and somatic symptoms of tension in which an individual anticipates impending danger, catastrophe, or misfortune²¹. The survey employed the Generalised Anxiety Disorder (GAD-7), a 7-item scale, to measure the severity of anxiety symptoms. Scores on the scale range from 0-21, and scores of 10 or higher indicate moderate-to-severe symptoms of anxiety.

Emotional numbing is a coping mechanism in which people detach from their emotions, both positive and negative, to deal with distress and trauma. It can be helpful in the short term, but it can lead to problems in the long term, such as difficulty processing emotions, increased risk of mental health problems, and reduced quality of life. The survey employed 5 items from the general subscale of the Emotional Reactivity and Numbing Scale. Scores on the scale range from 0-7, and scores of 4.6 or higher indicate high levels of emotional numbing.

Depression is a mental ill health condition that affects a person's mood, thoughts, and behaviour²². It is characterised by persistent feelings of sadness, hopelessness, and loss of interest in activities that one typically enjoys. The survey employed the Patient Health Questionnaire (PHQ-9), a 9-item scale, to assess the severity of depressive symptoms. The scores on this scale range from 0-27, with scores of 10 or higher indicating moderate-to-severe depressive symptoms.

Job satisfaction is the extent to which employees experience positive or negative emotions related to

their work. The survey employed three questions about job satisfaction. Scores on the scale range from 1-7, and scores of 6.0 or higher indicate high levels of job satisfaction.

Life satisfaction refers to the extent to which individuals positively evaluate their overall quality of life. The survey employed three questions from the Satisfaction with Life Scale. Scores on the scale range from 1-7, and scores of 6.0 or higher indicate high levels of job satisfaction.

Post-traumatic stress disorder (PTSD) is a mental ill health condition that can develop in individuals who have directly or indirectly experienced or witnessed traumatic events. PTSD symptoms may arise after a single event or from repeated exposure and can persist long after the original exposure has occurred, affecting an individual's quality of life and ability to function. The survey employed the Short Post-Traumatic Stress Disorder Rating Interview (SPRINT), an 8-item scale, to assess the main symptoms of PTSD. Scores on the scale range from 0 to 32, and scores of 17 or higher suggest probable PTSD.

Post-traumatic growth refers to the potential for positive change in individuals' lives following traumatic events or challenging life circumstances. The survey employed 5 items from the Post-traumatic Growth Inventory. Scores on the scale range from 0-7, and scores of 5.4 or higher indicate high levels of post-traumatic growth.

Resilience refers to the ability to recover from stress and approach the next stressor with optimism²³. The survey employed 3 items from the Brief Resilience Scale. Scores on the scale range from 0-7, and scores of 6 or higher indicate high levels of resilience.

Work-to-family conflict is a common inter-role conflict where the demands of work interfere with fulfilling family-related roles. The survey employed a 3-item subset of the work-family conflict scale. Scores on the scale range from 1 to 7, and scores of 6.3 or higher indicate high work-family conflict.

Organisational Factors

Accountability is the responsibility of an organisation to take ownership of its actions and willingness to address mistakes or wrongdoing. In this survey, accountability was measured on a 4-item scale. Scores on the scale

range from 1 to 7, and scores of 5 or higher indicate that employees agree that Fire and Emergency exhibit accountability.

Affective exchange ideology refers to the belief held by employees that positive treatment from the organisation should be reciprocated with positive attitudes and behaviours, such as loyalty, pride, and respect, by the employee. In this survey, affective exchange ideology was measured with a 4-item scale. Scores on the scale range from 1-7, with scores of 5 or higher indicating stronger affective exchange ideology.

Affective organisational commitment refers to the emotional attachment and loyalty that employees feel towards their organisation. It represents a deep sense of belonging and positive connection, leading to a willingness to invest in their work and support the organisation's goals.

Competence refers to the employee's perception of an organisation's ability to carry out its role effectively. In this survey, perceptions of organisational competence were measured on a 6-item scale. Scores on the scale range from 1 to 7, and scores of 5 or higher indicate that employees perceive Fire and Emergency as being competent and capable.

Cynicism in the workplace refers to a negative attitude and scepticism that employees hold towards their organisation or manager. It involves a lack of trust and belief in the organisation's intentions, actions, and decisions, leading to a sense of disillusionment and detachment. In this survey, organisational cynicism was measured on a 4-item scale while cynicism towards managers was measured on a 3-item scale. Scores on the scale range from 1 to 7, and scores of 5 or higher indicate that employees hold more cynical attitudes towards the organisation or their manager.

Extra-role performance refers to voluntary actions by employees that go beyond their formal job requirements. This survey used a 6-item scale to assess extra-role performance. Participants were asked to rate their level of engagement in activities that go beyond their formal job requirements. Scores on the scale ranged from 1 to 7, with scores of 5 or greater indicating extra-role performance.

Gratitude towards the organisation refers to the level of appreciation and recognition employees have for their organisation. It encompasses their gratitude for the support, opportunities, and positive impact the organisation has on their professional growth and overall wellbeing. In this survey, gratitude towards the organisation was measured with a 6-item scale. Scores on the scale range from 1-7, with scores of 5 or higher indicating positive feelings of gratitude towards the organisation.

Perceived Organisational Support (POS) refers to how much an employee believes their organisation values their contributions and cares about their wellbeing⁵. In

this survey, perceived support was measured at each of the following levels:

- Support from the organisation as a whole
- Support from managers (for personnel)
- Support from personnel (for managers)
- Support from co-workers
- Support from non-uniformed employees (towards uniformed employees)
- Support from uniformed employees (towards non-uniformed employees).

The survey employed questions from the POS scale for each of these levels. Scores on the scale range from 1-7, and scores of 5.0 or higher indicate positive perceptions of support.

Perceived preparedness to serve the community refers to an employee's sense of being adequately supported by their organisation to fulfil their role and serve the community. It encompasses the provision of necessary resources, equipment, and training to effectively carry out their work. In this survey, preparedness to serve the community was measured with a 2-item scale. Scores on the scale range from 1-7, with scores of 5 or higher indicating agreement that employees are well-equipped and trained to carry out their roles effectively.

Presenteeism is when employees are physically present at work but not fully engaged or productive due to being physically or mentally unwell. In this survey, presenteeism was measured on a 3-item scale. Scores on the scale range from 1 to 7, and scores of 5 or higher indicate that employees regularly turned up to work despite feeling physically or mentally unwell.

Pride in membership of an organisation reflects the sense of honour, satisfaction, and loyalty that employees feel towards their organisation. In this survey, pride in membership was measured with a 3-item scale. Scores on the scale range from 1 to 7, with scores of 5 or higher indicating strong pride in membership.

Psychological safety refers to the feeling of safety to express ideas, take risks, and ask questions without fear of reprisal in the workplace²⁴. In this survey, psychological safety was measured by asking employees about the extent to which they felt they could bring up important issues without fear of reprisal. Scores on the scale range from 1-7, and scores of 5 or higher indicate positive perceptions of psychological safety.

Turnover intention refers to an employee's inclination or desires to leave their current job or organisation. In this survey, turnover intention was measured on a 3-item scale. Scores on the scale range from 1 to 7, and scores of 5 or higher indicate an intention to leave Fire and Emergency.

Exposure to Potentially Traumatic Events

Potentially traumatic events (PTEs) refer to events that have the potential to result in trauma. An event that meets the diagnostic definition of a “trauma,” is defined by the Diagnostic and Statistical Manual for Mental Disorders (5th Edition; DSM-5)²⁵. This definition was used to develop three questions about exposure to PTEs (ever while working for FENZ, in the last month, and the last 12 months while working for FENZ). This definition is outline below:

‘Potentially Traumatic Events’ are defined as events where there is actual or significant threat of:

- death
- life threatening or serious injury

This can occur in one or more of the following ways:

1. **Direct exposure:** You experienced a life threatening or serious injury at an incident, or there was a significant threat of you experiencing a serious

injury or dying at an incident (e.g., you were seriously injured at a fire, you were involved in a near miss at an incident that could have killed or seriously injured you).

2. **Witnessing exposure:** You attended an incident where someone died/could have died, or was/could have been seriously injured (e.g., attendance at a purple call, a fire related rescue or fatality, a MVA involving serious injury/s or fatality/s).
3. **Indirect exposure:** In the course of your work you wrote, read, or heard about specific details of an event where someone died/could have died, or was/could have been seriously injured (e.g., dispatcher/shift manager hearing details of an infant cardiac arrest or entrapped person, fire investigator writing report related to a fatal fire, hearing about a close colleague who died/was seriously injured).

Whanaungatanga Programme Groups

For analysis, the sample was categorised into four groups:

- **Te Hiku Region Firefighters and Managers**
- **Other Regions Firefighters and Managers**
- **Other Uniformed**
- **All Non-Uniformed**

The 'Other Uniformed' category comprises employees in uniformed positions that are not specifically firefighters or firefighter managers. This includes other uniformed managers, Communication Centre employees, Community Risk employees, Trainers, Volunteer Support Officers, and other uniformed roles that are not further specified.

REFERENCES

1. Movember. (2021). *Movember funds new projects to support mental health of vets & first responders*. Movember. <https://ie.movember.com/story/movember-funds-new-projects-to-support-mental-health-of-vets-and-first-responders#:~:text=Based%20on%20the%20report%2C%20Movember,effectiveness%20through%20rigorous%20programme%20evaluation.>
2. Nielsen, K., & Christensen, M. (2021). Positive participatory organizational interventions: A multilevel approach for creating healthy workplaces. *Frontiers in psychology*, 12, 696245. <https://doi.org/10.3389/fpsyg.2021.696245>
3. Shanock, L. R., Shoss, M. K., Coyle-Shapiro, J., Shore, L. M., Zagenczyk, T. J., Buffardi, L. T., Caesens, G., Ford, M. T., Joo, M.-K., Karagonlar, G., Liu, Z., Mesdaghinia, S., Neves, P., Rousseau, D. M., Stinglhamber, F., Wen, X., Zhang, J., & Zheng, D. (2022). Remembering Robert W. Eisenberger: a tribute to his life and his work on perceived organizational support. *Group & Organization Management*, 47(4), 872-888. <https://doi.org/10.1177/10596011221110650>
4. Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen & C. L. Cooper (Eds.), *Work and wellbeing* (pp. 37–64). <https://doi.org/10.1002/9781118539415.wbwell019>
5. Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507. <https://doi.org/10.1037/0021-9010.71.3.500>
6. World Health Organization. (2022). *Mental Health*. <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
7. McCreary, D. (2019). *Veteran and first responder mental ill health and suicide prevention: a scoping review of prevention and early intervention programs used in Canada, Australia, New Zealand, Ireland, and the United Kingdom*. <https://uk.movember.com/uploads/files/2020/VFR%20Grants/Movember%20Executive%20Summary%20-%20Veterans%20and%20First%20Responder%20Scoping%20Review.pdf>
8. Beyond Blue Ltd. (2018). *Answering the call national survey, national mental health and wellbeing study of police and emergency services – final report*. https://www.beyondblue.org.au/docs/default-source/resources/bl1898-pes-full-report_final.pdf
9. Bryant, R. A., & Harvey, A. G. (1996). Posttraumatic stress reactions in volunteer firefighters. *Journal of Traumatic Stress*, 9(1), 51-62. <https://doi.org/10.1007/bf02116833>
10. Geronazzo-Alman, L., Eisenberg, R., Shen, S., Duarte, C. S., Musa, G. J., Wicks, J., Fan, B., Doan, T., Guffanti, G., Bresnahan, M., & Hoven, C. W. (2017). Cumulative exposure to work-related traumatic events and current post-traumatic stress disorder in New York City's first responders. *Comprehensive Psychiatry*, 74, 134-143. <https://doi.org/10.1016/j.comppsy.2016.12.003>
11. Skeffington, P. M., Rees, C. S., & Mazzucchelli, T. (2017). Trauma exposure and post-traumatic stress disorder within fire and emergency services in Western Australia. *Australian Journal of Psychology*, 69(1), 20-28. <https://doi.org/10.1111/ajpy.12120>
12. Carleton, R. N., Afifi, T. O., Taillieu, T., Turner, S., Krakauer, R., Anderson, G. S., MacPhee, R. S., Ricciardelli, R., Cramm, H. A., & Groll, D. (2019). Exposures to potentially traumatic events among public safety personnel in Canada. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 51(1), 37. <https://doi.org/10.1037/cbs0000115>
13. Harvey, S. B., Milligan-Saville, J. S., Paterson, H. M., Harkness, E. L., Marsh, A. M., Dobson, M., Kemp, R., & Bryant, R. A. (2016). The mental health of fire-fighters: an examination of the impact of repeated trauma exposure. *Australian & New Zealand Journal of Psychiatry*, 50(7), 649-658. <https://doi.org/10.1177/0004867415615217>
14. Back, C.-Y., Hyun, D.-S., Chang, S.-J., & Jeung, D.-Y. (2023). Trauma exposure and suicidal ideation among Korean male firefighters: examining the moderating roles of organizational climate. *Safety and Health at Work*, 14(1), 71-77. <https://doi.org/10.1016/j.shaw.2022.11.005>
15. Mackay, L., Schofield, G., Prendergast, K., Campbell, J., Li, J. (2023). *Whanaungatanga Wellbeing Survey: 2023 Detailed Report*.
16. Iranpour, S., Sabour, S., Koohi, F., & Saadati, H. M. (2022). The trend and pattern of depression prevalence in the US: Data from national health and nutrition examination survey (NHANES) 2005 to 2016. *Journal of Affective Disorders*, 298, 508-515. <https://doi.org/10.1016/j.jad.2021.11.027>
17. Carleton, R. N., Afifi, T. O., Turner, S., Taillieu, T., Durand, S., LeBouthillier, D. M., Sareen, J., Ricciardelli, R., MacPhee, R. S., & Groll, D. (2018). Mental disorder symptoms among public safety personnel in Canada. *The Canadian Journal of Psychiatry*, 63(1), 54-64. <https://doi.org/10.1177/0706743717723825>
18. den Heyer, G. (2021). Risk and protective factors for post-traumatic stress among New Zealand police personnel: a cross sectional study. *Policing: An International Journal*, 44(5), 909-925. <https://doi.org/10.1108/PIJPSM-01-2021-0001>
19. Richardson, A., Gurung, G., Samaranayaka, A., Gardner, D., deGraaf, B., Wyeth, E. H., Derrett, S., Shepherd, D., & McBride, D. (2020). Risk and protective factors for post-traumatic stress among New Zealand military personnel: a cross sectional study. *PLoS ONE*, 15(4), e0231460. <https://doi.org/10.1371/journal.pone.0231460>
20. Ryu, H.-Y., Hyun, D.-S., Jeung, D.-Y., Kim, C.-S., & Chang, S.-J. (2020). Organizational climate effects on the relationship between emotional labor and turnover intention in Korean firefighters. *Safety and Health at Work*, 11(4), 479-484. <https://doi.org/10.1016/j.shaw.2020.08.007>
21. American Psychological Association. (2023). *APA Dictionary of psychology*. In <https://dictionary.apa.org/>
22. American Psychiatric Association. (2020). *What is depression?* Retrieved 25.04.23 from <https://www.psychiatry.org/patients-families/depression/what-is-depression>
23. Van Schooten, Lantman, M., Mackus, M., Otten, L. S., De Kruijff, D., van de Loo, A. J., Kraneveld, A. D., Garssen, J., & Verster, J. C. (2017). Mental resilience, perceived immune functioning, and health. *Journal of multidisciplinary healthcare*, 107-112. <https://doi.org/10.2147/JMDH.S130432>
24. Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44, 350-383. <https://doi.org/10.2307/2666999>
25. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders fifth edition*. American Psychiatric Association. <https://doi.org/10.1176/appi.books.9780890425596>

APPENDICES

Appendix A: Sample Characteristics

Appendix B: Data Tables comparing results from 2023 and 2024

2024 Sample Characteristics

Group		Total	Male	Female
		N	n %	n %
Total Sample		1208	1004 100%	197 100%
Age range	Under 20 years	0	0 0%	0 0%
	20-29 years	98	72 7%	26 13%
	30-39 years	307	254 25%	52 26%
	40-49 years	337	274 27%	60 30%
	50-59 years	314	269 27%	44 22%
	60 years or older	150	134 13%	15 8%
Ethnicity	Māori	182	148 15%	33 17%
	Pacific peoples	58	51 5%	7 4%
	European	1090	913 91%	173 88%
	Other Ethnicity	186	153 15%	30 15%
Role type	Uniformed Manager	62	57 6%	5 3%
	Uniformed Firefighter	815	759 76%	52 27%
	Uniformed Comcen	41	22 2%	18 9%
	Uniformed Other	110	92 9%	18 9%
	Non-Uniformed Tier 1-4 Manager	39	20 2%	19 10%
	Non-Uniformed Other	129	45 5%	82 42%
Region	Te Hiku, formerly Region 1	366	326 33%	37 19%
	Ngā Tai Ki Te Puku, formerly Region 2	158	136 14%	22 12%
	Te Ūpoko, formerly Region 3	249	223 23%	25 13%
	Te Ihu, formerly Region 4	157	140 14%	17 9%
	Te Kei, formerly Region 5	97	84 9%	13 7%
	Comms Centre, North, Central, South	46	26 3%	19 10%
	National Headquarters	110	50 5%	58 30%
Length of service	Less than 12 Months			
	1-2 Years	108	62 7%	45 25%
	3-5 Years	164	119 13%	44 24%
	6-10 Years	227	180 19%	46 25%
	More than 10 Years	640	590 62%	48 26%
Programme Group	Te Hiku Region Firefighters and Managers	320	296 30%	21 11%
	Other Regions Firefighters and Managers	518	487 49%	30 16%
	Other Uniformed [‡]	179	139 14%	39 20%
	All Non-Uniformed	168	65 7%	101 53%

Small counts <5 are suppressed. Participants were able to select more than one ethnic group in the survey, therefore the total counts of the ethnicity categories may be greater than the total number of survey respondents.

[‡] Other uniformed group includes other uniformed managers (n=27), Communication Centre employees (n=41), Community Risk Reduction (n=50), Trainer (n=23), Volunteer Support Officers (n=24), and other uniformed roles not further defined (n=14).

Mental Health-Psychological Strain: Depression

Group		Total	Total Score		Moderate-to-Severe Depression Symptoms	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1207	5.0 (3.0-10.0)	5.0 (2.0-9.0)	25.8 (23.4-28.3)	23.5 (21.2-26.0)
Programme Group	Te Hiku Region Firefighters and Managers	320	5.0 (3.0-10.0)	5.0 (2.0-9.0)	25.3 (20.8-30.3)	24.5 (20.0-29.4)
	Other Regions Firefighters and Managers	517	6.0 (2.0-10.0)	5.0 (2.0-9.0)	25.3 (21.7-29.2)	21.8 (18.4-25.5)
	Other Uniformed	179	6.0 (3.0-10.0)	7.0 (3.0-11.0)	30.2 (23.8-37.2)	30.2 (23.8-37.2)
	All Non-Uniformed	168	5.0 (3.0-9.0)	4.0 (2.5-8.0)	23.8 (17.9-30.7)	19.0 (13.7-25.5)
Role Type	Uniformed	1037	5.0 (3.0-10.0)	5.0 (2.0-9.0)	26.1 (23.5-28.9)	24.2 (21.7-26.9)
	Non-uniformed	168	5.0 (3.0-9.0)	4.0 (2.5-8.0)	23.8 (17.9-30.7)	19.0 (13.7-25.5)
Role Level	Non-manager	1094	6.0 (3.0-10.0)	5.0 (2.0-9.0)	26.4 (23.9-29.1)	24.1 (21.7-26.7)
	Manager	101	4.0 (2.0-7.0)	4.0 (2.0-8.0)	18.8 (12.1-27.3)	15.8 (9.7-23.9)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	3.0 (1.0-6.0)	4.0 (2.0-7.0)	16.7 (10.6-24.5)	14.8 (9.1-22.4)
	3-5 Years	164	6.0 (3.0-9.0)	5.0 (3.0-8.0)	24.4 (18.3-31.4)	18.3 (13.0-24.7)
	6-10 Years	227	6.0 (3.0-10.0)	5.0 (2.0-10.0)	28.6 (23.1-34.8)	26.0 (20.6-32.0)
	More than 10 Years	639	5.0 (3.0-10.0)	5.0 (2.0-9.0)	26.9 (23.6-30.5)	24.9 (21.6-28.3)

PHQ-9 Depression Total Score, range 0-27; Normal - Minimal Severity of Depression, range 0-9; Moderate - Severe Severity of Depression, range 10-27; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health-Psychological Strain: Anxiety

Group		Total N	Total Score		Moderate-to-Severe Anxiety Symptoms	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1207	4.0 (1.0-7.0)	3.0 (1.0-7.0)	14.8 (12.9-16.9)	14.3 (12.4-16.4)
Programme Group	Te Hiku Region Firefighters and Managers	320	4.0 (1.0-6.0)	4.0 (1.0-7.0)	13.1 (9.8-17.2)	13.8 (10.3-17.9)
	Other Regions Firefighters and Managers	517	4.0 (1.0-7.0)	3.0 (1.0-7.0)	13.7 (11.0-16.9)	12.7 (10.1-15.8)
	Other Uniformed	179	4.0 (2.0-8.0)	4.0 (2.0-8.0)	20.7 (15.2-27.0)	20.7 (15.2-27.0)
	All Non-Uniformed	168	3.0 (1.0-7.0)	3.0 (1.0-7.0)	15.5 (10.6-21.5)	13.7 (9.1-19.5)
Role Type	Uniformed	1037	4.0 (1.0-7.0)	4.0 (1.0-7.0)	14.8 (12.7-17.0)	14.5 (12.4-16.7)
	Non-uniformed	168	3.0 (1.0-7.0)	3.0 (1.0-7.0)	15.5 (10.6-21.5)	13.7 (9.1-19.5)
Role Level	Non-manager	1094	4.0 (2.0-7.0)	3.0 (1.0-7.0)	15.4 (13.4-17.7)	14.7 (12.7-16.9)
	Manager	101	2.0 (0.0-5.0)	3.0 (1.0-6.0)	8.9 (4.5-15.6)	9.9 (5.2-16.9)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	3.0 (0.0-5.0)	3.0 (1.0-6.0)	12.0 (6.9-19.2)	13.9 (8.3-21.3)
	3-5 Years	164	4.0 (2.0-8.0)	4.0 (2.0-7.0)	18.9 (13.5-25.4)	13.4 (8.9-19.3)
	6-10 Years	227	4.0 (1.0-7.0)	4.0 (1.0-7.0)	16.3 (11.9-21.5)	16.7 (12.3-22.0)
	More than 10 Years	639	4.0 (1.0-7.0)	3.0 (1.0-7.0)	13.6 (11.1-16.4)	13.9 (11.4-16.8)

GAD-7 Anxiety Total Score, range 0-21; Normal - Minimal Severity of Anxiety Symptoms, range 0-9; Moderate - Severe Severity of Anxiety Symptoms, range 14-21; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health-Psychological Strain: PTSD

Group		Total	Total Score		Probable PTSD	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1102	7.0 (3.0-12.0)	6.0 (3.0-11.0)	12.9 (11.0-15.0)	10.7 (9.0-12.7)
Programme Group	Te Hiku Region Firefighters and Managers	314	8.0 (4.0-12.0)	7.0 (3.0-11.0)	14.3 (10.8-18.5)	12.5 (9.2-16.5)
	Other Regions Firefighters and Managers	509	7.0 (3.0-13.0)	7.0 (3.0-11.0)	13.6 (10.8-16.7)	9.3 (7.0-12.0)
	Other Uniformed	172	7.0 (3.0-12.0)	7.0 (2.0-12.0)	12.2 (8.0-17.7)	14.3 (9.7-20.0)
	All Non-Uniformed	85	4.0 (1.0-8.0)	3.5 (0.0-7.0)	3.5 (1.0-9.1)	2.6 (0.5-8.0)
Role Type	Uniformed	1015	7.0 (3.0-12.0)	7.0 (3.0-11.0)	13.6 (11.6-15.8)	11.3 (9.4-13.3)
	Non-uniformed	85	4.0 (1.0-8.0)	3.5 (0.0-7.0)	3.5 (1.0-9.1)	2.6 (0.5-8.0)
Role Level	Non-manager	1010	7.0 (3.0-12.0)	7.0 (3.0-11.0)	13.4 (11.4-15.6)	11.0 (9.2-13.0)
	Manager	80	4.0 (2.0-8.0)	3.0 (2.0-7.0)	6.3 (2.4-13.2)	5.1 (1.8-11.7)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	73	3.0 (1.0-6.0)	4.0 (1.0-7.0)	6.8 (2.7-14.4)	3.8 (1.1-9.9)
	3-5 Years	137	7.0 (4.0-11.0)	6.0 (3.0-11.0)	8.0 (4.3-13.5)	8.0 (4.3-13.5)
	6-10 Years	207	7.0 (3.0-12.0)	7.0 (3.0-11.0)	12.1 (8.2-17.0)	9.4 (5.9-13.9)
	More than 10 Years	621	7.0 (3.0-13.0)	7.0 (3.0-12.0)	14.7 (12.0-17.6)	12.0 (9.6-14.7)

SPRINT Post-Traumatic Stress Disorder Total Score, range 0-32; Unlikely - Possible PTSD, range 0-16; Probable PTSD, range 17-32; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health-Psychological Strain: Work-to-family conflict

Group		Total	Total Score		High Work-to-Family Conflict	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1207	5.3 (4.0-6.3)	5.0 (4.0-6.0)	28.2 (25.7-30.8)	20.3 (18.1-22.7)
Programme Group	Te Hiku Region Firefighters and Managers	319	5.3 (4.3-6.3)	5.3 (4.0-6.0)	32.9 (27.9-38.2)	23.9 (19.5-28.8)
	Other Regions Firefighters and Managers	518	5.7 (4.7-6.7)	5.3 (4.0-6.0)	33.8 (29.8-37.9)	23.0 (19.5-26.8)
	Other Uniformed	179	5.0 (4.0-6.0)	5.0 (3.7-6.0)	24.0 (18.2-30.7)	20.1 (14.7-26.4)
	All Non-Uniformed	168	4.0 (2.0-5.0)	4.0 (2.3-5.0)	7.1 (4.0-11.8)	6.5 (3.5-11.0)
Role Type	Uniformed	1037	5.7 (4.3-6.3)	5.3 (4.0-6.0)	31.6 (28.9-34.5)	22.5 (20.0-25.1)
	Non-uniformed	168	4.0 (2.0-5.0)	4.0 (2.3-5.0)	7.1 (4.0-11.8)	6.5 (3.5-11.0)
Role Level	Non-manager	1094	5.3 (4.0-6.3)	5.0 (4.0-6.0)	28.6 (26.0-31.3)	20.0 (17.7-22.4)
	Manager	101	5.0 (4.0-6.0)	5.0 (3.7-6.0)	23.8 (16.3-32.7)	21.8 (14.6-30.6)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	4.0 (2.3-5.2)	4.3 (3.0-5.5)	10.2 (5.5-16.9)	7.4 (3.6-13.5)
	3-5 Years	163	5.3 (4.0-6.3)	5.0 (3.7-6.0)	25.2 (19.0-32.2)	16.5 (11.4-22.7)
	6-10 Years	227	5.3 (4.0-6.3)	5.0 (3.7-6.0)	26.0 (20.6-32.0)	18.9 (14.3-24.4)
	More than 10 Years	640	5.7 (4.7-6.3)	5.3 (4.0-6.0)	32.8 (29.3-36.5)	24.1 (20.9-27.6)

Work-to-Family Conflict Total Score, range 1-7; Low-Moderate, range below upper quartile <6.3; High, range at or above upper quartile 6.3-7.0; Small counts <5 are suppressed; IQI

Mental Health-Coping Mechanisms: Alcohol Use

Group		Total N	Total Score		Potentially Hazardous Drinking Pattern	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	4.0 (2.0-6.0)	4.0 (2.0-6.0)	64.4 (61.6-67.0)	60.1 (57.3-62.8)
Programme Group	Te Hiku Region Firefighters and Managers	320	5.0 (3.0-7.0)	4.0 (3.0-6.0)	68.8 (63.5-73.7)	63.9 (58.5-69.1)
	Other Regions Firefighters and Managers	518	5.0 (3.0-6.0)	4.0 (3.0-6.0)	68.3 (64.2-72.2)	62.9 (58.6-66.9)
	Other Uniformed	179	4.0 (2.0-5.0)	4.0 (2.0-5.0)	58.4 (51.1-65.5)	55.6 (48.3-62.8)
	All Non-Uniformed	168	3.0 (2.0-5.0)	3.0 (1.0-5.0)	53.0 (45.4-60.5)	50.0 (42.4-57.6)
Role Type	Uniformed	1038	4.0 (3.0-6.0)	4.0 (2.0-6.0)	66.1 (63.2-69.0)	61.6 (58.6-64.6)
	Non-uniformed	168	3.0 (2.0-5.0)	3.0 (1.0-5.0)	53.0 (45.4-60.5)	50.0 (42.4-57.6)
Role Level	Non-manager	1095	4.0 (2.0-6.0)	4.0 (2.0-6.0)	64.8 (61.9-67.6)	60.1 (57.1-63.0)
	Manager	101	4.0 (2.0-6.0)	4.0 (2.0-6.0)	61.4 (51.7-70.5)	61.4 (51.7-70.5)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	4.0 (2.0-6.0)	3.0 (2.0-5.0)	57.4 (48.0-66.4)	55.1 (45.7-64.3)
	3-5 Years	164	4.0 (2.0-5.5)	3.5 (2.0-5.0)	64.0 (56.5-71.1)	55.8 (48.2-63.3)
	6-10 Years	227	4.0 (2.0-6.0)	4.0 (2.0-6.0)	62.8 (56.4-68.9)	55.8 (49.2-62.1)
	More than 10 Years	640	4.0 (3.0-6.0)	4.0 (2.0-6.0)	65.8 (62.1-69.4)	63.3 (59.5-66.9)

AUDIT-C Total Score, range 0-12; Low-Moderate, range males 0-3 and females 0-2; Potentially Hazardous, range males 4-12 and females 3-12; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health-Coping Mechanisms: Emotional Numbing

Group		Total N	Total Score		High Emotional Numbing	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1207	3.4 (2.0-4.8)	3.4 (2.0-4.6)	28.8 (26.3-31.4)	28.7 (26.2-31.3)
Programme Group	Te Hiku Region Firefighters and Managers	320	3.8 (2.4-5.0)	3.8 (2.4-5.0)	34.1 (29.0-39.4)	34.8 (29.7-40.1)
	Other Regions Firefighters and Managers	517	3.6 (2.2-4.8)	3.8 (2.4-4.8)	31.9 (28.0-36.0)	32.2 (28.3-36.4)
	Other Uniformed	179	3.0 (1.6-4.8)	3.2 (1.6-4.4)	27.9 (21.8-34.8)	24.0 (18.2-30.7)
	All Non-Uniformed	168	1.8 (1.0-3.5)	1.7 (1.0-3.2)	9.5 (5.8-14.7)	10.1 (6.2-15.4)
Role Type	Uniformed	1037	3.6 (2.2-4.8)	3.6 (2.2-4.8)	31.9 (29.1-34.8)	31.6 (28.9-34.5)
	Non-uniformed	168	1.8 (1.0-3.5)	1.7 (1.0-3.2)	9.5 (5.8-14.7)	10.1 (6.2-15.4)
Role Level	Non-manager	1094	3.6 (2.0-4.8)	3.6 (2.0-4.8)	30.4 (27.8-33.2)	30.2 (27.5-32.9)
	Manager	101	2.2 (1.2-3.4)	2.0 (1.0-3.6)	10.9 (5.9-18.1)	10.9 (5.9-18.1)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	2.2 (1.0-3.7)	2.4 (1.2-4.0)	13.9 (8.3-21.3)	15.7 (9.8-23.5)
	3-5 Years	164	3.4 (1.9-4.4)	3.3 (1.8-4.6)	22.6 (16.7-29.4)	25.6 (19.4-32.7)
	6-10 Years	227	3.4 (1.8-4.6)	3.6 (2.0-4.6)	26.0 (20.6-32.0)	28.6 (23.1-34.8)
	More than 10 Years	639	3.8 (2.0-5.0)	3.6 (2.0-4.8)	34.0 (30.4-37.7)	31.5 (27.9-35.1)

Emotional Numbing Total Score, range 1-7; Low-Moderate, range below upper quartile 1.0-4.6; High, range at or above upper quartile 4.6-7.0; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health-Positive Wellbeing Outcomes: Life Satisfaction

Group		Total N	Total Score		High Life Satisfaction	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	5.0 (3.7-6.0)	5.3 (4.0-6.0)	32.9 (30.3-35.6)	33.5 (30.9-36.2)
Programme Group	Te Hiku Region Firefighters and Managers	320	5.0 (4.0-6.0)	5.0 (4.0-6.0)	33.8 (28.7-39.1)	34.2 (29.1-39.5)
	Other Regions Firefighters and Managers	518	5.0 (3.7-6.0)	5.3 (4.0-6.0)	31.5 (27.6-35.6)	33.3 (29.3-37.4)
	Other Uniformed	179	5.0 (4.0-6.0)	5.0 (4.0-6.0)	33.0 (26.4-40.1)	31.3 (24.8-38.3)
	All Non-Uniformed	168	5.0 (4.0-6.0)	5.3 (4.2-6.0)	35.1 (28.2-42.5)	35.7 (28.8-43.2)
Role Type	Uniformed	1038	5.0 (3.7-6.0)	5.0 (4.0-6.0)	32.6 (29.8-35.5)	33.1 (30.3-36.0)
	Non-uniformed	168	5.0 (4.0-6.0)	5.3 (4.2-6.0)	35.1 (28.2-42.5)	35.7 (28.8-43.2)
Role Level	Non-manager	1095	5.0 (3.7-6.0)	5.0 (4.0-6.0)	32.0 (29.3-34.8)	32.6 (29.8-35.4)
	Manager	101	5.3 (4.3-6.0)	5.7 (4.7-6.3)	42.6 (33.3-52.3)	44.6 (35.1-54.3)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	5.3 (4.7-6.0)	5.7 (4.3-6.0)	41.7 (32.7-51.1)	42.6 (33.6-52.0)
	3-5 Years	164	5.0 (4.0-6.0)	5.3 (4.0-6.0)	31.7 (25.0-39.1)	34.8 (27.8-42.3)
	6-10 Years	227	5.0 (3.7-6.0)	5.0 (4.0-6.0)	28.2 (22.6-34.3)	30.8 (25.1-37.1)
	More than 10 Years	640	5.0 (3.7-6.0)	5.0 (4.0-6.0)	32.5 (29.0-36.2)	32.0 (28.4-35.7)

Life Satisfaction Total Score, range 1-7; Low-Moderate, range below upper quartile <6.0; High, range at or above upper quartile 6.0-7.0; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health-Positive Wellbeing Outcomes: Job Satisfaction

Group		Total N	Total Score		High Job Satisfaction	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	5.7 (4.3-6.0)	5.7 (4.7-6.0)	42.4 (39.6-45.2)	44.4 (41.7-47.3)
Programme Group	Te Hiku Region Firefighters and Managers	320	6.0 (5.0-6.5)	6.0 (5.0-6.3)	53.4 (48.0-58.9)	55.8 (50.3-61.2)
	Other Regions Firefighters and Managers	518	5.3 (4.0-6.0)	5.3 (4.3-6.0)	39.8 (35.6-44.0)	38.9 (34.7-43.1)
	Other Uniformed	179	5.3 (4.3-6.0)	5.7 (4.3-6.0)	36.3 (29.5-43.5)	45.8 (38.6-53.1)
	All Non-Uniformed	168	5.0 (4.0-6.0)	5.3 (4.0-6.0)	35.1 (28.2-42.5)	39.9 (32.7-47.4)
Role Type	Uniformed	1038	5.7 (4.3-6.0)	5.7 (4.7-6.0)	43.5 (40.6-46.6)	45.2 (42.2-48.2)
	Non-uniformed	168	5.0 (4.0-6.0)	5.3 (4.0-6.0)	35.1 (28.2-42.5)	39.9 (32.7-47.4)
Role Level	Non-manager	1095	5.7 (4.3-6.0)	5.7 (4.7-6.0)	42.1 (39.2-45.0)	44.3 (41.4-47.2)
	Manager	101	5.7 (4.7-6.0)	5.7 (4.7-6.3)	46.5 (37.0-56.2)	47.5 (38.0-57.2)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	6.0 (5.2-7.0)	6.0 (5.3-6.7)	59.3 (49.8-68.2)	59.3 (49.8-68.2)
	3-5 Years	164	6.0 (5.0-6.7)	6.0 (5.0-6.7)	57.3 (49.7-64.7)	53.0 (45.4-60.6)
	6-10 Years	227	5.3 (4.3-6.0)	5.3 (4.3-6.0)	33.9 (28.0-40.3)	38.3 (32.2-44.8)
	More than 10 Years	640	5.3 (4.0-6.0)	5.7 (4.3-6.0)	37.8 (34.1-41.6)	41.5 (37.7-45.3)

Job Satisfaction Total Score, range 1-7; Low-Moderate, range below upper quartile <6.0; High, range at or above upper quartile 6.0-7.0; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health-Positive Wellbeing Outcomes: Resilience

Group		Total N	Total Score		High Resilience	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	5.0 (3.7-6.0)	5.0 (4.0-6.0)	33.2 (30.6-35.9)	33.3 (30.6-35.9)
Programme Group	Te Hiku Region Firefighters and Managers	320	5.3 (4.0-6.0)	5.3 (4.3-6.0)	36.3 (31.1-41.6)	35.7 (30.6-41.1)
	Other Regions Firefighters and Managers	518	5.0 (4.0-6.0)	5.0 (4.0-6.0)	33.8 (29.8-37.9)	34.0 (30.1-38.2)
	Other Uniformed	179	5.0 (3.3-6.0)	5.0 (3.7-6.0)	31.3 (24.8-38.3)	30.2 (23.8-37.2)
	All Non-Uniformed	168	5.0 (3.3-6.0)	5.0 (3.7-6.0)	28.6 (22.1-35.7)	31.5 (24.9-38.8)
Role Type	Uniformed	1038	5.0 (4.0-6.0)	5.0 (4.0-6.0)	33.9 (31.1-36.8)	33.5 (30.7-36.4)
	Non-uniformed	168	5.0 (3.3-6.0)	5.0 (3.7-6.0)	28.6 (22.1-35.7)	31.5 (24.9-38.8)
Role Level	Non-manager	1095	5.0 (3.7-6.0)	5.0 (4.0-6.0)	33.0 (30.2-35.8)	32.8 (30.1-35.7)
	Manager	101	5.0 (4.3-6.0)	5.3 (4.3-6.0)	37.6 (28.6-47.3)	39.6 (30.5-49.3)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	5.3 (4.3-6.0)	5.0 (4.3-6.0)	40.7 (31.8-50.2)	36.1 (27.5-45.4)
	3-5 Years	164	5.0 (3.7-6.0)	5.2 (4.0-6.0)	28.0 (21.6-35.3)	37.2 (30.1-44.8)
	6-10 Years	227	5.0 (3.7-6.0)	5.0 (4.0-6.0)	30.8 (25.1-37.1)	31.7 (25.9-38.0)
	More than 10 Years	640	5.0 (3.7-6.0)	5.0 (4.0-6.0)	33.9 (30.3-37.6)	33.1 (29.5-36.8)

Resilience Total Score, range 1-7; Low-Moderate, range below upper quartile <6.0; High, range at or above upper quartile 6.0-7.0; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health-Positive Wellbeing Outcomes: Post-Traumatic Growth

Group		Total N	Total Score		High Post-Traumatic Growth	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		999	4.8 (4.0-5.4)	4.8 (4.0-5.4)	29.7 (27.0-32.6)	30.2 (27.4-33.1)
Programme Group	Te Hiku Region Firefighters and Managers	269	4.8 (4.0-5.4)	4.8 (4.0-5.4)	29.4 (24.2-35.0)	32.0 (26.6-37.7)
	Other Regions Firefighters and Managers	433	4.6 (4.0-5.4)	4.6 (4.0-5.2)	25.6 (21.7-29.9)	24.9 (21.0-29.2)
	Other Uniformed	152	4.8 (4.2-5.6)	4.8 (4.2-5.6)	31.6 (24.6-39.3)	30.2 (23.6-37.6)
	All Non-Uniformed	124	5.0 (4.4-5.8)	5.0 (4.4-5.9)	41.9 (33.5-50.7)	41.4 (33.1-50.1)
Role Type	Uniformed	874	4.6 (4.0-5.4)	4.8 (4.0-5.4)	28.0 (25.1-31.1)	28.5 (25.6-31.5)
	Non-uniformed	124	5.0 (4.4-5.8)	5.0 (4.4-5.9)	41.9 (33.5-50.7)	41.4 (33.1-50.1)
Role Level	Non-manager	904	4.8 (4.0-5.4)	4.8 (4.0-5.4)	28.8 (25.9-31.8)	28.8 (25.9-31.8)
	Manager	84	4.8 (4.2-6.0)	4.9 (4.2-5.6)	39.3 (29.3-49.9)	40.5 (30.4-51.1)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	79	5.2 (4.4-6.0)	5.0 (4.2-5.8)	43.0 (32.5-54.0)	42.9 (32.7-53.5)
	3-5 Years	126	4.8 (4.2-5.6)	4.8 (4.2-5.8)	34.1 (26.3-42.7)	35.8 (28.1-44.2)
	6-10 Years	179	4.6 (4.0-5.4)	4.8 (4.0-5.6)	27.9 (21.8-34.8)	32.2 (25.8-39.2)
	More than 10 Years	554	4.6 (4.0-5.4)	4.6 (4.0-5.4)	26.4 (22.8-30.1)	25.8 (22.2-29.6)

Post-Traumatic Growth Total Score, range 1-7; Low-Moderate, range at or below upper quartile <5.4; High, range above upper quartile 5.4-7.0; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Mental Health Indicators for Communication Centre Employees only

Indicator	2023		2024	
	N	% (95% CI)	N	% (95% CI)
Moderate-to-Severe Depressive Symptoms	22	53.7 (38.6-68.2)	22	53.7 (38.6-68.2)
Moderate-to-Severe Anxiety Symptoms	20	48.8 (34.0-63.7)	17	41.5 (27.4-56.7)
Probable PTSD	13	33.3 (20.1-48.9)	12	30.0 (17.6-45.2)
High Work-to-Family Conflict	14	34.1 (21.1-49.3)	11	26.8 (15.2-41.6)
High Emotional Numbing	15	36.6 (23.2-51.8)	15	36.6 (23.2-51.8)
Potentially Hazardous Alcohol	21	52.5 (37.3-67.3)	21	52.5 (37.3-67.3)

Small counts <5 are suppressed; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: TM Perceived Manager Support

Group		Total N	Total Score		High TM Perceived Manager Support	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1111	4.4 (3.0-5.8)	4.8 (3.5-5.9)	39.4 (36.6-42.3)	45.3 (42.4-48.2)
Programme Group	Te Hiku Region Firefighters and Managers	311	4.0 (2.6-5.0)	4.4 (3.4-5.3)	27.3 (22.6-32.5)	32.5 (27.5-37.8)
	Other Regions Firefighters and Managers	492	4.3 (2.8-5.5)	4.5 (3.3-5.6)	36.0 (31.8-40.3)	41.3 (37.0-45.7)
	Other Uniformed	153	4.9 (3.5-6.0)	5.4 (3.9-6.4)	49.7 (41.8-57.5)	59.9 (52.0-67.4)
	All Non-Uniformed	132	5.9 (4.4-6.9)	6.1 (5.0-6.9)	69.7 (61.5-77.0)	76.7 (68.9-83.4)
Role Type	Uniformed	977	4.3 (2.9-5.5)	4.6 (3.4-5.8)	35.3 (32.4-38.3)	41.1 (38.1-44.2)
	Non-uniformed	132	5.9 (4.4-6.9)	6.1 (5.0-6.9)	69.7 (61.5-77.0)	76.7 (68.9-83.4)
Role Level	Non-manager	1089	4.4 (2.9-5.8)	4.8 (3.5-5.9)	39.3 (36.4-42.2)	45.5 (42.6-48.5)
	Manager	10	5.5 (4.8-6.1)	0.0 (0.0-0.0)	70.0 (39.4-90.7)	(0.0-0.0)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	98	5.6 (4.3-6.8)	5.5 (4.6-6.4)	65.3 (55.5-74.2)	63.5 (53.6-72.7)
	3-5 Years	156	4.5 (3.2-5.7)	4.6 (3.5-5.9)	39.1 (31.7-46.9)	44.8 (37.1-52.7)
	6-10 Years	220	4.2 (3.1-5.4)	4.8 (3.4-5.8)	33.6 (27.6-40.1)	43.8 (37.4-50.5)
	More than 10 Years	571	4.4 (2.8-5.6)	4.6 (3.3-5.8)	37.8 (33.9-41.9)	43.3 (39.2-47.3)

Team Member Perceived Manager Support Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: M Perceived Personnel Support

Group		Total	Total Score		High M Perceived Personnel Support	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		97	5.8 (5.2-6.3)	5.8 (5.2-6.3)	79.4 (70.5-86.5)	81.2 (72.7-87.9)
Programme Group	Te Hiku Region Firefighters and Managers	9	5.7 (5.5-6.2)	5.8 (5.0-5.8)	77.8 (45.6-95.1)	77.8 (45.6-95.1)
	Other Regions Firefighters and Managers	26	5.3 (4.7-6.0)	5.5 (4.8-6.0)	65.4 (46.3-81.3)	69.2 (50.2-84.2)
	Other Uniformed	26	5.5 (4.8-6.0)	6.0 (5.0-6.2)	69.2 (50.2-84.2)	77.8 (59.8-90.2)
	All Non-Uniformed	36	6.3 (5.7-6.7)	6.3 (5.7-6.5)	97.2 (87.7-99.7)	92.3 (80.9-97.8)
Role Type	Uniformed	61	5.5 (4.8-6.0)	5.7 (4.8-6.0)	68.9 (56.6-79.4)	74.2 (62.4-83.8)
	Non-uniformed	36	6.3 (5.7-6.7)	6.3 (5.7-6.5)	97.2 (87.7-99.7)	92.3 (80.9-97.8)
Role Level	Non-manager	6	6.5 (6.2-7.0)	0.0 (0.0-0.0)	100.0 (0.0-0.0)	(0.0-0.0)
	Manager	91	5.7 (5.2-6.3)	5.8 (5.2-6.3)	78.0 (68.7-85.6)	81.2 (72.7-87.9)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	10	5.8 (5.5-6.5)	6.2 (5.3-6.7)	100.0 (0.0-0.0)	91.7 (67.2-99.1)
	3-5 Years	8	6.3 (6.0-6.9)	6.4 (6.0-6.8)	100.0 (0.0-0.0)	90.0 (61.9-98.9)
	6-10 Years	7	5.8 (5.0-6.2)	5.8 (5.7-6.5)	85.7 (49.9-98.4)	87.5 (54.6-98.6)
	More than 10 Years	69	5.7 (4.8-6.3)	5.7 (5.0-6.2)	73.9 (62.7-83.1)	76.8 (65.9-85.5)

Manager Perceived Personnel Support Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; ; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: A Perceived Co-worker Support

Group		Total	Total Score		High Perceived Co-Worker Support	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1207	6.0 (5.3-6.7)	6.0 (5.3-6.7)	81.3 (79.0-83.4)	82.7 (80.5-84.7)
Programme Group	Te Hiku Region Firefighters and Managers	320	6.2 (5.7-6.8)	6.2 (5.7-6.8)	88.8 (84.9-91.9)	88.1 (84.2-91.3)
	Other Regions Firefighters and Managers	518	6.0 (5.2-6.7)	6.0 (5.5-6.7)	80.9 (77.3-84.1)	83.2 (79.8-86.2)
	Other Uniformed	179	5.8 (4.8-6.5)	5.7 (4.8-6.5)	72.1 (65.2-78.2)	73.7 (67.0-79.8)
	All Non-Uniformed	167	6.0 (5.2-6.8)	6.0 (5.2-6.8)	78.4 (71.8-84.2)	80.4 (73.9-85.8)
Role Type	Uniformed	1038	6.0 (5.3-6.7)	6.0 (5.3-6.7)	81.8 (79.4-84.0)	83.1 (80.8-85.3)
	Non-uniformed	167	6.0 (5.2-6.8)	6.0 (5.2-6.8)	78.4 (71.8-84.2)	80.4 (73.9-85.8)
Role Level	Non-manager	1094	6.0 (5.3-6.7)	6.0 (5.5-6.7)	81.6 (79.3-83.8)	83.3 (81.0-85.4)
	Manager	101	6.0 (5.0-6.3)	6.0 (5.0-6.7)	77.2 (68.4-84.6)	75.2 (66.2-82.9)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	6.5 (5.8-6.8)	6.2 (5.8-6.9)	92.6 (86.5-96.4)	88.9 (81.9-93.8)
	3-5 Years	164	6.3 (5.4-7.0)	6.2 (5.7-7.0)	84.1 (78.0-89.1)	89.6 (84.3-93.6)
	6-10 Years	227	6.0 (5.3-6.8)	6.0 (5.5-6.8)	82.4 (77.0-86.9)	84.1 (79.0-88.4)
	More than 10 Years	639	6.0 (5.2-6.7)	6.0 (5.3-6.7)	78.7 (75.4-81.8)	79.2 (75.9-82.2)

Perceived Co-Worker Support Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: A Perceived Organisational Support

Group		Total N	Total Score		High Perceived Organisational Support	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	2.8 (1.6-4.0)	3.3 (2.1-4.3)	11.8 (10.0-13.7)	14.7 (12.8-16.8)
Programme Group	Te Hiku Region Firefighters and Managers	320	2.6 (1.6-3.9)	3.3 (2.1-4.1)	8.8 (6.0-12.2)	11.6 (8.4-15.4)
	Other Regions Firefighters and Managers	518	2.4 (1.5-3.5)	2.9 (1.9-4.0)	6.0 (4.2-8.3)	7.1 (5.2-9.6)
	Other Uniformed	179	3.1 (2.0-4.4)	3.5 (2.3-4.8)	14.5 (9.9-20.2)	19.6 (14.3-25.8)
	All Non-Uniformed	168	4.3 (3.1-5.3)	4.4 (3.3-5.6)	33.9 (27.1-41.3)	41.1 (33.8-48.6)
Role Type	Uniformed	1038	2.5 (1.6-3.8)	3.1 (2.0-4.1)	8.1 (6.5-9.9)	10.4 (8.7-12.4)
	Non-uniformed	168	4.3 (3.1-5.3)	4.4 (3.3-5.6)	33.9 (27.1-41.3)	41.1 (33.8-48.6)
Role Level	Non-manager	1095	2.6 (1.6-3.9)	3.3 (2.0-4.1)	9.1 (7.5-10.9)	11.8 (10.0-13.8)
	Manager	101	4.6 (3.4-5.4)	4.9 (3.9-5.8)	41.6 (32.3-51.3)	48.5 (38.9-58.2)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	4.3 (3.8-5.3)	4.1 (3.3-5.3)	34.3 (25.8-43.5)	31.5 (23.3-40.6)
	3-5 Years	164	2.9 (1.8-3.9)	3.3 (2.0-4.4)	10.4 (6.4-15.7)	17.1 (11.9-23.4)
	6-10 Years	227	2.6 (1.6-3.8)	3.3 (2.0-4.3)	6.2 (3.6-9.9)	11.0 (7.4-15.6)
	More than 10 Years	640	2.6 (1.6-3.8)	3.1 (2.1-4.3)	10.3 (8.1-12.8)	12.3 (10.0-15.1)

Perceived Organisational Support Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: U Perceived Non-Uniformed Support

Group		Total N	Total Score		High U Perceived Non-Uniformed Support	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1042	2.0 (1.0-4.0)	2.5 (1.5-4.0)	9.4 (7.7-11.3)	10.5 (8.8-12.5)
Programme Group	Te Hiku Region Firefighters and Managers	316	2.0 (1.0-4.0)	3.0 (1.5-4.0)	9.5 (6.6-13.1)	10.3 (7.4-14.0)
	Other Regions Firefighters and Managers	515	2.0 (1.0-3.0)	2.0 (1.0-3.5)	4.1 (2.6-6.1)	6.8 (4.8-9.2)
	Other Uniformed	174	3.3 (2.0-4.5)	3.5 (2.0-4.5)	23.0 (17.2-29.7)	20.9 (15.4-27.3)
	All Non-Uniformed	17	4.0 (3.0-5.0)	0.0 (0.0-0.0)	29.4 (12.2-53.0)	(0.0-0.0)
Role Type	Uniformed	1023	2.0 (1.0-3.5)	2.5 (1.5-4.0)	9.0 (7.4-10.9)	10.5 (8.8-12.5)
	Non-uniformed	17	4.0 (3.0-5.0)	0.0 (0.0-0.0)	29.4 (12.2-53.0)	(0.0-0.0)
Role Level	Non-manager	970	2.0 (1.0-3.5)	2.5 (1.0-4.0)	7.9 (6.4-9.8)	8.6 (7.0-10.5)
	Manager	63	4.0 (2.5-5.0)	4.5 (3.0-5.0)	31.7 (21.3-43.9)	37.1 (25.9-49.5)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	65	4.0 (2.5-4.5)	3.0 (2.0-4.0)	24.6 (15.4-36.0)	20.6 (12.1-31.8)
	3-5 Years	125	2.0 (1.0-3.5)	2.0 (1.0-4.0)	4.8 (2.0-9.6)	2.4 (0.7-6.3)
	6-10 Years	194	2.0 (1.0-3.5)	2.5 (1.0-4.0)	8.8 (5.4-13.4)	11.4 (7.5-16.4)
	More than 10 Years	597	2.0 (1.0-3.5)	2.5 (1.5-4.0)	8.5 (6.5-11.0)	10.6 (8.3-13.3)

Uniformed Perception of Non-Uniformed Support Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Factors: NU Perceived Uniformed Support

Group		Total N	Total Score		High NU Perceived Uniform Support	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		158	2.5 (1.5-4.0)	2.5 (1.5-4.0)	13.3 (8.7-19.2)	14.3 (9.6-20.2)
Programme Group	Te Hiku Region Firefighters and Managers	<5	4.0 (4.0-4.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	Other Regions Firefighters and Managers	<5	4.0 (4.0-4.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	Other Uniformed	5	2.5 (2.0-3.0)	0.0 (0.0-0.0)	20.0 (2.3-62.9)	(0.0-0.0)
	All Non-Uniformed	149	2.5 (1.5-4.0)	2.5 (1.5-4.0)	12.8 (8.1-18.8)	14.3 (9.6-20.2)
Role Type	Uniformed	9	3.0 (2.0-4.0)	0.0 (0.0-0.0)	22.2 (4.9-54.4)	(0.0-0.0)
	Non-uniformed	149	2.5 (1.5-4.0)	2.5 (1.5-4.0)	12.8 (8.1-18.8)	14.3 (9.6-20.2)
Role Level	Non-manager	118	2.8 (1.5-4.0)	2.5 (1.5-4.0)	13.6 (8.3-20.6)	16.3 (10.7-23.4)
	Manager	38	2.0 (1.0-3.0)	2.5 (1.5-3.0)	10.5 (3.7-23.1)	7.7 (2.2-19.1)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	42	3.0 (2.0-4.0)	3.0 (2.0-4.0)	14.3 (6.2-27.1)	24.4 (13.7-38.3)
	3-5 Years	39	2.0 (1.5-3.5)	2.5 (1.5-3.5)	5.1 (1.1-15.4)	10.3 (3.6-22.6)
	6-10 Years	32	2.0 (1.0-3.5)	2.5 (1.0-4.0)	15.6 (6.2-30.9)	9.1 (2.6-22.3)
	More than 10 Years	38	2.5 (1.0-4.0)	2.0 (1.0-3.0)	18.4 (8.6-32.8)	11.4 (4.5-23.1)

Non-Uniformed Perception of Uniformed Support Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: Perceived Preparedness to Serve the Community

Group		Total N	Total Score		High Perceived Preparedness to Serve	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1206	3.0 (1.5-4.5)	3.0 (2.0-5.0)	22.1 (19.8-24.5)	25.5 (23.1-28.0)
Programme Group	Te Hiku Region Firefighters and Managers	319	3.0 (1.5-4.0)	3.0 (2.0-4.5)	19.4 (15.4-24.0)	23.8 (19.3-28.6)
	Other Regions Firefighters and Managers	517	2.5 (1.5-4.0)	3.0 (1.5-4.0)	17.8 (14.7-21.3)	19.9 (16.7-23.5)
	Other Uniformed	179	3.5 (2.0-5.0)	3.5 (2.0-5.0)	26.8 (20.7-33.6)	31.8 (25.4-38.9)
	All Non-Uniformed	168	4.0 (2.5-5.5)	4.0 (2.5-5.5)	36.3 (29.3-43.8)	41.1 (33.8-48.6)
Role Type	Uniformed	1036	3.0 (1.5-4.0)	3.0 (2.0-4.5)	19.7 (17.4-22.2)	23.0 (20.5-25.6)
	Non-uniformed	168	4.0 (2.5-5.5)	4.0 (2.5-5.5)	36.3 (29.3-43.8)	41.1 (33.8-48.6)
Role Level	Non-manager	1093	3.0 (1.5-4.5)	3.0 (2.0-4.5)	20.5 (18.2-23.0)	23.4 (21.0-26.0)
	Manager	101	4.5 (3.0-5.5)	4.5 (3.0-6.0)	40.6 (31.4-50.3)	49.5 (39.9-59.2)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	107	4.0 (2.5-5.5)	4.0 (2.5-5.3)	40.2 (31.3-49.6)	36.1 (27.5-45.4)
	3-5 Years	164	2.5 (1.5-4.0)	3.0 (2.0-4.5)	14.6 (9.9-20.6)	23.2 (17.2-30.1)
	6-10 Years	227	3.0 (1.5-4.5)	3.0 (2.0-4.5)	20.7 (15.8-26.3)	21.6 (16.6-27.3)
	More than 10 Years	639	3.0 (1.5-4.5)	3.0 (2.0-5.0)	21.6 (18.5-24.9)	26.3 (23.0-29.8)

Perceived Preparedness to Serve the Community Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: Organisational Competence

Group		Total N	Total Score		High Perceived Organisational Competence	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1207	3.3 (2.3-4.7)	3.8 (2.8-5.0)	21.5 (19.3-23.9)	26.3 (23.9-28.9)
Programme Group	Te Hiku Region Firefighters and Managers	320	3.2 (2.0-4.3)	3.8 (2.5-4.8)	16.3 (12.5-20.6)	22.8 (18.5-27.6)
	Other Regions Firefighters and Managers	517	3.2 (2.2-4.2)	3.5 (2.7-4.5)	13.7 (11.0-16.9)	18.8 (15.6-22.3)
	Other Uniformed	179	4.0 (2.8-5.2)	4.2 (3.3-5.5)	33.0 (26.4-40.1)	34.1 (27.4-41.2)
	All Non-Uniformed	168	4.7 (3.5-5.8)	4.8 (3.9-5.8)	45.2 (37.8-52.8)	49.4 (41.9-56.9)
Role Type	Uniformed	1037	3.2 (2.2-4.5)	3.8 (2.7-4.8)	17.6 (15.4-20.1)	22.6 (20.1-25.2)
	Non-uniformed	168	4.7 (3.5-5.8)	4.8 (3.9-5.8)	45.2 (37.8-52.8)	49.4 (41.9-56.9)
Role Level	Non-manager	1094	3.3 (2.3-4.5)	3.8 (2.7-4.8)	19.1 (16.9-21.5)	23.9 (21.5-26.5)
	Manager	101	4.8 (3.8-5.8)	5.0 (4.0-5.7)	49.5 (39.9-59.2)	52.5 (42.8-62.0)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	4.8 (3.4-6.0)	4.8 (3.5-5.6)	49.1 (39.8-58.4)	46.3 (37.1-55.7)
	3-5 Years	164	3.3 (2.0-4.3)	3.8 (2.3-4.8)	15.2 (10.4-21.3)	23.2 (17.2-30.1)
	6-10 Years	226	3.3 (2.3-4.3)	3.8 (2.8-4.7)	15.9 (11.6-21.1)	20.7 (15.8-26.3)
	More than 10 Years	640	3.3 (2.3-4.7)	3.8 (2.8-5.0)	20.6 (17.6-23.9)	26.4 (23.1-29.9)

Organisational Competence Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: Accountability

Group		Total N	Total Score		High Perceived Accountability	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	2.0 (1.0-3.5)	2.5 (1.5-4.0)	7.9 (6.5-9.6)	9.6 (8.0-11.4)
Programme Group	Te Hiku Region Firefighters and Managers	320	1.5 (1.0-3.0)	2.3 (1.0-3.5)	4.4 (2.5-7.0)	5.0 (3.0-7.8)
	Other Regions Firefighters and Managers	518	1.8 (1.0-2.8)	2.0 (1.3-3.3)	2.9 (1.7-4.6)	4.3 (2.8-6.3)
	Other Uniformed	179	2.5 (1.5-4.0)	3.0 (1.8-4.0)	14.0 (9.5-19.6)	15.1 (10.4-20.9)
	All Non-Uniformed	168	4.0 (2.6-4.9)	4.3 (3.0-5.0)	25.0 (18.9-31.9)	30.4 (23.8-37.6)
Role Type	Uniformed	1038	1.8 (1.0-3.0)	2.3 (1.3-3.5)	5.1 (3.9-6.6)	6.2 (4.8-7.8)
	Non-uniformed	168	4.0 (2.6-4.9)	4.3 (3.0-5.0)	25.0 (18.9-31.9)	30.4 (23.8-37.6)
Role Level	Non-manager	1095	2.0 (1.0-3.3)	2.5 (1.3-3.8)	6.3 (5.0-7.9)	7.4 (6.0-9.1)
	Manager	101	4.0 (2.8-5.0)	4.3 (3.3-5.3)	26.7 (18.8-35.9)	34.7 (25.9-44.3)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	4.0 (3.0-4.8)	4.0 (2.4-5.0)	23.1 (16.0-31.7)	25.9 (18.4-34.7)
	3-5 Years	164	2.0 (1.0-3.3)	2.5 (1.3-4.0)	7.3 (4.1-12.1)	9.8 (5.9-15.0)
	6-10 Years	227	1.8 (1.0-3.0)	2.5 (1.5-4.0)	6.2 (3.6-9.9)	7.1 (4.3-11.0)
	More than 10 Years	640	1.8 (1.0-3.0)	2.5 (1.3-3.5)	6.6 (4.8-8.7)	8.1 (6.2-10.4)

Accountability Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Job Resilience: Psychological Safety

Group		Total N	Total Score		High Perceived Psychological Safety	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1206	3.0 (2.0-5.0)	4.0 (2.0-5.0)	28.5 (26.0-31.1)	36.7 (34.0-39.5)
Programme Group	Te Hiku Region Firefighters and Managers	319	3.0 (1.0-4.0)	3.0 (2.0-5.0)	21.6 (17.4-26.4)	30.7 (25.8-35.9)
	Other Regions Firefighters and Managers	517	3.0 (2.0-4.0)	4.0 (2.0-5.0)	24.6 (21.0-28.4)	31.4 (27.5-35.5)
	Other Uniformed	179	3.0 (2.0-5.0)	4.0 (2.0-5.0)	36.3 (29.5-43.5)	43.8 (36.7-51.2)
	All Non-Uniformed	168	4.0 (2.0-6.0)	5.0 (3.0-6.0)	46.4 (39.0-54.0)	58.3 (50.8-65.6)
Role Type	Uniformed	1036	3.0 (2.0-5.0)	4.0 (2.0-5.0)	25.6 (23.0-28.3)	33.2 (30.4-36.1)
	Non-uniformed	168	4.0 (2.0-6.0)	5.0 (3.0-6.0)	46.4 (39.0-54.0)	58.3 (50.8-65.6)
Role Level	Non-manager	1093	3.0 (2.0-5.0)	4.0 (2.0-5.0)	26.0 (23.4-28.6)	34.0 (31.2-36.9)
	Manager	101	5.0 (3.0-6.0)	5.0 (4.0-6.0)	57.4 (47.7-66.7)	68.3 (58.8-76.8)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	4.0 (3.0-6.0)	4.5 (3.0-6.0)	45.4 (36.2-54.8)	50.0 (40.7-59.3)
	3-5 Years	164	3.0 (2.0-5.0)	4.0 (2.0-5.0)	28.7 (22.2-35.9)	37.8 (30.6-45.4)
	6-10 Years	227	3.0 (2.0-4.0)	4.0 (2.0-5.0)	22.9 (17.8-28.7)	36.0 (29.9-42.4)
	More than 10 Years	638	3.0 (2.0-5.0)	4.0 (2.0-5.0)	27.1 (23.8-30.7)	33.6 (30.1-37.4)

Psychological Safety Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Organisational Attitudes: Affective Organisational Commitment

Group		Total N	Total Score		High Affective Organisational Commitment	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	4.3 (3.3-5.2)	4.5 (3.7-5.3)	30.5 (28.0-33.2)	35.6 (33.0-38.4)
Programme Group	Te Hiku Region Firefighters and Managers	320	4.3 (3.5-5.1)	4.5 (3.8-5.3)	30.6 (25.8-35.8)	36.6 (31.4-41.9)
	Other Regions Firefighters and Managers	518	4.2 (3.2-4.8)	4.2 (3.5-5.2)	24.1 (20.6-28.0)	29.6 (25.8-33.6)
	Other Uniformed	179	4.7 (3.5-5.7)	4.7 (3.7-5.5)	40.8 (33.8-48.1)	41.9 (34.8-49.2)
	All Non-Uniformed	168	4.7 (3.7-5.5)	4.8 (3.8-6.0)	39.9 (32.7-47.4)	45.2 (37.8-52.8)
Role Type	Uniformed	1038	4.2 (3.3-5.2)	4.3 (3.5-5.3)	29.0 (26.3-31.8)	34.0 (31.2-37.0)
	Non-uniformed	168	4.7 (3.7-5.5)	4.8 (3.8-6.0)	39.9 (32.7-47.4)	45.2 (37.8-52.8)
Role Level	Non-manager	1095	4.2 (3.3-5.0)	4.3 (3.5-5.3)	28.1 (25.5-30.8)	33.2 (30.4-36.0)
	Manager	101	5.2 (4.5-6.0)	5.5 (4.5-6.3)	58.4 (48.7-67.7)	62.4 (52.7-71.4)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	5.2 (4.1-5.7)	4.8 (4.0-5.8)	57.4 (48.0-66.4)	47.2 (38.0-56.6)
	3-5 Years	164	4.5 (3.5-5.2)	4.5 (3.6-5.3)	32.9 (26.1-40.4)	34.8 (27.8-42.3)
	6-10 Years	227	4.2 (3.3-4.8)	4.3 (3.5-5.2)	22.9 (17.8-28.7)	31.4 (25.6-37.7)
	More than 10 Years	640	4.2 (3.2-5.0)	4.5 (3.5-5.3)	28.1 (24.7-31.7)	34.8 (31.2-38.6)

Affective Organisational Commitment Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Organisational Attitudes: Organisational Cynicism-Overall

Group		Total N	Total Score		High Organisational Cynicism	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	5.3 (4.3-6.3)	5.0 (4.3-6.0)	61.6 (58.8-64.3)	59.5 (56.7-62.3)
Programme Group	Te Hiku Region Firefighters and Managers	320	5.3 (4.3-6.7)	5.3 (4.3-6.0)	63.8 (58.4-68.9)	63.8 (58.4-68.9)
	Other Regions Firefighters and Managers	518	5.7 (4.7-6.7)	5.3 (4.7-6.3)	69.7 (65.6-73.5)	65.3 (61.1-69.3)
	Other Uniformed	179	5.0 (4.3-6.0)	4.7 (4.0-5.7)	53.6 (46.3-60.8)	47.5 (40.3-54.8)
	All Non-Uniformed	168	4.7 (3.7-5.7)	4.7 (3.8-5.3)	41.1 (33.8-48.6)	45.8 (38.4-53.4)
Role Type	Uniformed	1038	5.3 (4.3-6.3)	5.0 (4.3-6.0)	65.0 (62.1-67.9)	61.8 (58.8-64.7)
	Non-uniformed	168	4.7 (3.7-5.7)	4.7 (3.8-5.3)	41.1 (33.8-48.6)	45.8 (38.4-53.4)
Role Level	Non-manager	1095	5.3 (4.3-6.3)	5.0 (4.3-6.3)	63.4 (60.5-66.2)	61.7 (58.8-64.6)
	Manager	101	4.7 (3.7-5.7)	4.3 (3.7-5.0)	43.6 (34.2-53.3)	33.7 (25.0-43.2)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	4.3 (4.0-5.3)	4.7 (4.0-5.7)	30.6 (22.5-39.7)	41.7 (32.7-51.1)
	3-5 Years	164	5.3 (4.3-6.3)	5.0 (4.3-6.3)	61.6 (54.0-68.8)	57.9 (50.3-65.3)
	6-10 Years	227	5.3 (4.7-6.3)	5.0 (4.3-6.3)	66.5 (60.2-72.4)	61.7 (55.2-67.8)
	More than 10 Years	640	5.3 (4.7-6.5)	5.0 (4.3-6.0)	65.2 (61.4-68.8)	62.0 (58.2-65.7)

Organisational Cynicism Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; ; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Organisational Attitudes: Organisational Cynicism-Manager

Group		Total N	Total Score		High Manager Cynicism	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1111	3.7 (2.7-4.7)	3.7 (2.7-4.3)	22.2 (19.9-24.7)	18.5 (16.3-20.9)
Programme Group	Te Hiku Region Firefighters and Managers	311	4.0 (3.0-4.7)	3.7 (3.0-4.3)	23.2 (18.7-28.1)	18.3 (14.3-22.9)
	Other Regions Firefighters and Managers	492	4.0 (2.7-4.7)	3.7 (2.7-4.7)	23.4 (19.8-27.3)	20.1 (16.8-23.8)
	Other Uniformed	153	3.3 (2.7-4.3)	3.3 (2.3-4.5)	20.9 (15.1-27.9)	19.1 (13.4-25.9)
	All Non-Uniformed	132	3.0 (1.7-4.0)	3.0 (1.7-4.0)	15.2 (9.8-22.0)	12.4 (7.6-18.9)
Role Type	Uniformed	977	4.0 (3.0-4.7)	3.7 (2.7-4.3)	23.2 (20.7-26.0)	19.3 (16.9-21.8)
	Non-uniformed	132	3.0 (1.7-4.0)	3.0 (1.7-4.0)	15.2 (9.8-22.0)	12.4 (7.6-18.9)
Role Level	Non-manager	1089	3.7 (2.7-4.7)	3.7 (2.7-4.3)	22.0 (19.7-24.6)	18.4 (16.1-20.7)
	Manager	10	3.3 (2.7-5.3)	0.0 (0.0-0.0)	30.0 (9.3-60.6)	(0.0-0.0)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	98	3.3 (2.0-4.0)	3.3 (1.7-4.0)	5.1 (2.0-10.8)	9.4 (4.7-16.4)
	3-5 Years	156	3.7 (2.0-4.7)	3.3 (2.0-4.3)	20.5 (14.8-27.4)	16.2 (11.1-22.7)
	6-10 Years	220	3.8 (3.0-4.7)	3.7 (2.7-4.3)	21.8 (16.8-27.6)	16.0 (11.6-21.3)
	More than 10 Years	571	4.0 (3.0-5.0)	3.7 (2.7-4.7)	25.9 (22.5-29.6)	22.1 (18.8-25.6)

Manager Cynicism Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; ; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Organisational Attitudes: Turnover Intention

Group		Total N	Total Score		High Turnover Intention	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1204	3.0 (1.7-4.3)	3.0 (1.3-4.3)	17.1 (15.1-19.3)	14.2 (12.3-16.2)
Programme Group	Te Hiku Region Firefighters and Managers	319	2.3 (1.0-4.3)	2.3 (1.0-4.0)	12.2 (9.0-16.2)	9.4 (6.6-13.0)
	Other Regions Firefighters and Managers	517	3.0 (1.7-4.3)	3.0 (1.7-4.3)	18.6 (15.4-22.1)	14.5 (11.7-17.7)
	Other Uniformed	179	3.0 (2.0-4.7)	3.0 (1.7-4.7)	20.1 (14.7-26.4)	20.1 (14.7-26.4)
	All Non-Uniformed	167	3.3 (1.7-4.7)	3.0 (1.7-4.3)	19.2 (13.8-25.6)	14.4 (9.7-20.3)
Role Type	Uniformed	1035	3.0 (1.7-4.3)	2.7 (1.3-4.3)	16.7 (14.5-19.1)	14.1 (12.1-16.3)
	Non-uniformed	167	3.3 (1.7-4.7)	3.0 (1.7-4.3)	19.2 (13.8-25.6)	14.4 (9.7-20.3)
Role Level	Non-manager	1092	3.0 (1.7-4.3)	3.0 (1.3-4.3)	17.4 (15.2-19.7)	14.1 (12.1-16.3)
	Manager	101	2.7 (1.3-4.0)	2.7 (1.3-4.3)	15.8 (9.7-23.9)	12.9 (7.4-20.4)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	1.0 (1.0-2.7)	2.0 (1.0-3.3)	5.6 (2.4-11.1)	4.7 (1.8-9.9)
	3-5 Years	164	2.3 (1.0-3.7)	2.0 (1.0-4.0)	14.6 (9.9-20.6)	10.4 (6.4-15.7)
	6-10 Years	226	3.3 (2.0-4.3)	3.0 (1.7-4.0)	14.6 (10.5-19.6)	11.0 (7.4-15.6)
	More than 10 Years	637	3.7 (2.0-4.7)	3.0 (1.7-4.3)	21.0 (18.0-24.3)	17.8 (15.0-20.9)

Turnover Intention Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Behavioural Outcomes: Presenteeism

Group		Total N	Total Score		High Presenteeism	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1203	3.3 (2.3-4.3)	3.0 (2.0-4.0)	34.1 (31.4-36.8)	29.1 (26.6-31.7)
Programme Group	Te Hiku Region Firefighters and Managers	317	3.0 (2.0-4.0)	3.0 (2.0-4.0)	30.6 (25.7-35.8)	28.4 (23.7-33.6)
	Other Regions Firefighters and Managers	517	3.3 (2.3-4.3)	3.0 (2.0-3.7)	35.4 (31.4-39.6)	24.5 (20.9-28.4)
	Other Uniformed	178	3.3 (2.7-4.3)	3.7 (2.7-4.7)	40.4 (33.4-47.8)	44.1 (36.9-51.4)
	All Non-Uniformed	168	3.3 (2.3-4.0)	3.0 (2.0-4.0)	33.3 (26.5-40.7)	28.9 (22.4-36.1)
Role Type	Uniformed	1033	3.3 (2.3-4.3)	3.0 (2.0-4.0)	34.2 (31.3-37.1)	29.1 (26.4-31.9)
	Non-uniformed	168	3.3 (2.3-4.0)	3.0 (2.0-4.0)	33.3 (26.5-40.7)	28.9 (22.4-36.1)
Role Level	Non-manager	1090	3.3 (2.3-4.3)	3.0 (2.0-4.0)	34.3 (31.5-37.2)	28.3 (25.7-31.0)
	Manager	101	3.0 (2.7-4.7)	3.3 (2.3-4.3)	32.7 (24.1-42.2)	36.4 (27.4-46.1)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	3.0 (1.8-3.7)	3.0 (2.0-3.7)	24.1 (16.8-32.7)	23.4 (16.1-32.0)
	3-5 Years	164	3.2 (2.3-4.3)	3.3 (2.0-4.0)	31.1 (24.4-38.5)	27.0 (20.6-34.2)
	6-10 Years	225	3.3 (2.3-4.3)	3.0 (2.0-4.0)	36.4 (30.4-42.9)	26.4 (21.0-32.4)
	More than 10 Years	637	3.3 (2.3-4.3)	3.0 (2.3-4.0)	36.6 (32.9-40.4)	31.1 (27.6-34.8)

Presenteeism Total Score, range 0-6; Never-Sometimes, score <4; Often-Always, score ≥4 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Behavioural Outcomes: Extra Role Performance

Group		Total	Total Score		High Extra Role Performance	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1207	5.5 (4.8-6.0)	5.5 (4.8-6.0)	70.7 (68.1-73.2)	70.9 (68.3-73.4)
Programme Group	Te Hiku Region Firefighters and Managers	320	5.3 (4.5-5.8)	5.3 (4.7-6.0)	62.2 (56.8-67.4)	66.6 (61.3-71.6)
	Other Regions Firefighters and Managers	517	5.3 (4.7-6.0)	5.3 (4.7-6.0)	66.9 (62.8-70.9)	66.7 (62.6-70.7)
	Other Uniformed	179	5.7 (5.0-6.3)	5.8 (5.0-6.3)	81.0 (74.8-86.2)	77.1 (70.5-82.8)
	All Non-Uniformed	168	6.0 (5.4-6.5)	5.8 (5.3-6.7)	88.7 (83.2-92.8)	84.5 (78.5-89.4)
Role Type	Uniformed	1037	5.3 (4.7-6.0)	5.3 (4.7-6.0)	67.8 (64.9-70.6)	68.8 (65.9-71.5)
	Non-uniformed	168	6.0 (5.4-6.5)	5.8 (5.3-6.7)	88.7 (83.2-92.8)	84.5 (78.5-89.4)
Role Level	Non-manager	1094	5.3 (4.7-6.0)	5.3 (4.7-6.0)	69.1 (66.3-71.8)	69.0 (66.2-71.7)
	Manager	101	6.2 (5.7-6.7)	6.2 (5.7-6.7)	88.1 (80.8-93.3)	91.1 (84.4-95.5)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	5.7 (5.0-6.2)	5.5 (4.9-6.1)	77.8 (69.3-84.8)	75.0 (66.2-82.4)
	3-5 Years	164	5.3 (4.8-6.1)	5.5 (4.8-6.0)	72.0 (64.7-78.4)	70.1 (62.8-76.7)
	6-10 Years	227	5.3 (4.5-6.0)	5.3 (4.7-6.0)	62.1 (55.7-68.2)	65.2 (58.8-71.2)
	More than 10 Years	639	5.5 (4.8-6.2)	5.5 (4.8-6.0)	71.7 (68.1-75.1)	71.7 (68.1-75.1)

Extra Role Performance Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Central Emotions: Affective Exchange Ideology

Group		Total N	Total Score		High Affective Exchange Ideology	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	6.0 (5.3-6.8)	6.0 (5.0-6.8)	81.0 (78.7-83.1)	80.2 (77.9-82.4)
Programme Group	Te Hiku Region Firefighters and Managers	320	6.3 (5.5-7.0)	6.3 (5.5-6.9)	85.3 (81.1-88.9)	89.7 (86.0-92.7)
	Other Regions Firefighters and Managers	518	6.0 (5.3-6.8)	6.0 (5.0-6.8)	80.3 (76.7-83.6)	78.6 (74.9-81.9)
	Other Uniformed	179	6.0 (5.0-6.8)	6.0 (4.8-6.8)	78.8 (72.3-84.3)	74.9 (68.1-80.8)
	All Non-Uniformed	168	5.8 (5.0-6.5)	5.8 (4.8-6.5)	76.8 (70.0-82.7)	74.4 (67.4-80.5)
Role Type	Uniformed	1038	6.0 (5.3-6.8)	6.0 (5.3-6.8)	81.6 (79.2-83.9)	81.2 (78.8-83.5)
	Non-uniformed	168	5.8 (5.0-6.5)	5.8 (4.8-6.5)	76.8 (70.0-82.7)	74.4 (67.4-80.5)
Role Level	Non-manager	1095	6.0 (5.3-6.8)	6.0 (5.0-6.8)	80.7 (78.3-83.0)	80.6 (78.2-82.9)
	Manager	101	6.0 (5.3-6.8)	6.0 (5.0-6.5)	83.2 (75.0-89.5)	78.2 (69.4-85.4)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	6.0 (5.0-6.8)	6.0 (5.0-6.8)	79.6 (71.3-86.4)	80.6 (72.3-87.2)
	3-5 Years	164	6.0 (5.0-6.5)	5.8 (5.0-6.8)	77.4 (70.6-83.3)	76.2 (69.3-82.2)
	6-10 Years	227	6.0 (5.3-6.8)	6.0 (5.0-6.8)	81.1 (75.6-85.7)	80.2 (74.6-85.0)
	More than 10 Years	640	6.0 (5.3-7.0)	6.0 (5.3-6.8)	81.9 (78.8-84.7)	81.6 (78.4-84.4)

Affective Exchange Ideology Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Central Emotions: Gratitude Towards the Organisation

Group		Total	Total Score		High Gratitude Towards the Organisation	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1208	3.8 (2.7-4.7)	4.2 (3.2-5.0)	21.1 (18.9-23.5)	28.3 (25.8-30.8)
Programme Group	Te Hiku Region Firefighters and Managers	320	3.5 (2.7-4.3)	4.0 (3.2-5.0)	15.6 (12.0-19.9)	25.9 (21.4-30.9)
	Other Regions Firefighters and Managers	518	3.5 (2.3-4.5)	3.8 (2.8-4.7)	15.8 (12.9-19.2)	21.1 (17.7-24.8)
	Other Uniformed	179	4.0 (3.0-5.0)	4.3 (3.3-5.5)	27.9 (21.8-34.8)	34.1 (27.4-41.2)
	All Non-Uniformed	168	4.7 (3.7-5.7)	4.8 (3.8-5.8)	41.7 (34.4-49.2)	49.4 (41.9-56.9)
Role Type	Uniformed	1038	3.7 (2.5-4.5)	4.0 (3.0-4.8)	17.7 (15.5-20.1)	24.8 (22.2-27.5)
	Non-uniformed	168	4.7 (3.7-5.7)	4.8 (3.8-5.8)	41.7 (34.4-49.2)	49.4 (41.9-56.9)
Role Level	Non-manager	1095	3.7 (2.5-4.5)	4.0 (3.0-5.0)	18.5 (16.3-20.9)	25.1 (22.6-27.8)
	Manager	101	5.0 (4.0-5.8)	5.3 (4.5-6.2)	50.5 (40.8-60.1)	64.4 (54.7-73.2)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	4.5 (3.8-5.7)	4.7 (3.7-5.6)	38.0 (29.2-47.3)	41.7 (32.7-51.1)
	3-5 Years	164	3.5 (2.7-4.6)	4.2 (3.1-5.0)	20.7 (15.1-27.4)	26.8 (20.5-34.0)
	6-10 Years	227	3.7 (2.7-4.3)	4.0 (3.2-4.8)	18.1 (13.5-23.5)	24.3 (19.1-30.2)
	More than 10 Years	640	3.7 (2.5-4.7)	4.0 (3.0-5.0)	19.5 (16.6-22.7)	28.0 (24.6-31.5)

Gratitude Towards the Organisation Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Organisational Factors-Central Emotions: Pride in Membership

Group		Total N	Total Score		High Pride in Membership	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1206	6.0 (4.7-7.0)	6.0 (5.0-7.0)	71.5 (68.9-74.0)	77.2 (74.8-79.5)
Programme Group	Te Hiku Region Firefighters and Managers	320	6.0 (4.8-7.0)	6.0 (5.0-7.0)	75.0 (70.0-79.5)	81.3 (76.7-85.2)
	Other Regions Firefighters and Managers	516	5.7 (4.0-6.7)	6.0 (4.7-6.7)	65.9 (61.7-69.9)	73.1 (69.2-76.8)
	Other Uniformed	179	6.0 (5.0-7.0)	6.0 (5.0-7.0)	77.7 (71.1-83.3)	79.3 (73.0-84.8)
	All Non-Uniformed	168	6.0 (5.0-7.0)	6.0 (5.0-7.0)	77.4 (70.6-83.2)	79.2 (72.6-84.8)
Role Type	Uniformed	1036	5.7 (4.3-7.0)	6.0 (5.0-7.0)	70.5 (67.6-73.2)	77.0 (74.3-79.4)
	Non-uniformed	168	6.0 (5.0-7.0)	6.0 (5.0-7.0)	77.4 (70.6-83.2)	79.2 (72.6-84.8)
Role Level	Non-manager	1093	5.7 (4.3-7.0)	6.0 (5.0-7.0)	69.8 (67.0-72.5)	76.6 (74.0-79.0)
	Manager	101	6.3 (5.7-7.0)	7.0 (6.0-7.0)	90.1 (83.1-94.8)	84.2 (76.1-90.3)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	108	6.7 (5.7-7.0)	6.2 (5.7-7.0)	89.8 (83.1-94.5)	87.0 (79.8-92.4)
	3-5 Years	164	6.0 (5.0-7.0)	6.0 (5.0-7.0)	75.6 (68.6-81.7)	78.7 (71.9-84.4)
	6-10 Years	226	5.3 (4.0-6.3)	6.0 (4.7-6.7)	66.8 (60.5-72.7)	74.8 (68.8-80.1)
	More than 10 Years	639	5.7 (4.3-6.7)	6.0 (5.0-7.0)	69.2 (65.5-72.7)	75.3 (71.9-78.5)

Pride in Membership Total Score, range 1-7; Disagreement, score <5; Agreement, score ≥5 or more; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Exposure to Potentially Traumatic Events-Last Month

Group		Total N	Total Score		High PTE Exposure Last Month	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1052	3.0 (1.0-5.0)	2.0 (0.0-4.0)	20.8 (18.4-23.3)	14.0 (12.0-16.2)
Programme Group	Te Hiku Region Firefighters and Managers	296	3.0 (2.0-5.0)	2.0 (1.0-4.0)	22.0 (17.5-26.9)	12.6 (9.2-16.7)
	Other Regions Firefighters and Managers	487	3.0 (1.0-5.0)	2.0 (1.0-4.0)	18.5 (15.2-22.1)	13.5 (10.7-16.7)
	Other Uniformed	167	2.0 (0.0-10.0)	1.0 (0.0-4.0)	28.7 (22.3-35.9)	19.3 (13.7-25.9)
	All Non-Uniformed	83	1.0 (0.0-3.0)	0.0 (0.0-3.0)	14.5 (8.2-23.2)	12.0 (6.1-20.8)
Role Type	Uniformed	967	3.0 (1.0-5.0)	2.0 (1.0-4.0)	21.4 (18.9-24.1)	14.2 (12.1-16.5)
	Non-uniformed	83	1.0 (0.0-3.0)	0.0 (0.0-3.0)	14.5 (8.2-23.2)	12.0 (6.1-20.8)
Role Level	Non-manager	967	3.0 (1.0-5.0)	2.0 (1.0-4.0)	21.6 (19.1-24.3)	14.2 (12.1-16.5)
	Manager	76	1.0 (0.0-3.0)	0.0 (0.0-2.0)	10.5 (5.1-18.9)	11.0 (5.3-19.6)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	72	2.0 (1.0-3.5)	2.0 (1.0-3.0)	15.3 (8.4-24.9)	9.6 (4.4-17.9)
	3-5 Years	137	3.0 (1.0-5.0)	2.0 (1.0-4.0)	19.7 (13.7-27.0)	16.4 (10.9-23.4)
	6-10 Years	200	2.5 (1.0-5.0)	2.0 (1.0-4.0)	21.5 (16.2-27.6)	10.6 (6.9-15.5)
	More than 10 Years	586	3.0 (1.0-5.0)	2.0 (0.0-4.0)	21.0 (17.8-24.4)	14.8 (12.1-17.9)

Approximate Exposure to Potentially Traumatic Events Last Month, range 0-20+; Low-Moderate, range 0-5; High, range >=6; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

Exposure to Potentially Traumatic Events-Last 12 Months

Group		Total	Total Score		High PTE Exposure Last 12 Months	
			2023	2024	2023	2024
			Median (IQR)	Median (IQR)	% (95% CI)	% (95% CI)
Total Sample		1099	15.5 (8.0-25.5)	15.5 (3.0-25.5)	37.4 (34.6-40.3)	30.3 (27.6-33.0)
Programme Group	Te Hiku Region Firefighters and Managers	312	15.5 (8.0-25.5)	15.5 (8.0-25.5)	37.5 (32.3-43.0)	35.3 (30.2-40.7)
	Other Regions Firefighters and Managers	508	15.5 (8.0-25.5)	15.5 (8.0-25.5)	41.5 (37.3-45.9)	28.3 (24.6-32.4)
	Other Uniformed	172	8.0 (3.0-35.5)	8.0 (3.0-25.5)	36.0 (29.2-43.4)	30.9 (24.4-38.0)
	All Non-Uniformed	85	3.0 (3.0-15.5)	3.0 (3.0-15.5)	12.9 (7.1-21.3)	19.2 (11.7-29.0)
Role Type	Uniformed	1012	15.5 (8.0-25.5)	15.5 (8.0-25.5)	39.5 (36.5-42.6)	31.2 (28.4-34.1)
	Non-uniformed	85	3.0 (3.0-15.5)	3.0 (3.0-15.5)	12.9 (7.1-21.3)	19.2 (11.7-29.0)
Role Level	Non-manager	1008	15.5 (8.0-25.5)	15.5 (8.0-25.5)	38.3 (35.3-41.3)	31.0 (28.2-33.9)
	Manager	79	3.0 (3.0-15.5)	3.0 (3.0-15.5)	20.3 (12.6-30.1)	17.9 (10.7-27.5)
Length of Service	Less than 12 Months		0.0 (0.0-0.0)	0.0 (0.0-0.0)	(0.0-0.0)	(0.0-0.0)
	1-2 Years	73	8.0 (3.0-15.5)	8.0 (3.0-15.5)	15.1 (8.3-24.6)	11.5 (5.9-20.0)
	3-5 Years	137	15.5 (8.0-25.5)	15.5 (8.0-25.5)	35.0 (27.4-43.3)	29.2 (22.1-37.2)
	6-10 Years	206	15.5 (8.0-25.5)	15.5 (8.0-25.5)	38.3 (31.9-45.1)	35.0 (28.7-41.7)
	More than 10 Years	619	15.5 (8.0-25.5)	15.5 (3.0-25.5)	40.4 (36.6-44.3)	30.6 (27.1-34.3)

Approximate Exposure to Potentially Traumatic Events Last 12 Months, range 0-50+; Low-Moderate, range 0-30; High, range >=31; Small counts <5 are suppressed; IQR = Interquartile range: lower quartile-upper quartile; 95% CI = 95% Confidence Interval.

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**1737 Need To Talk (1737)
The Suicide Crisis Helpline (0508 828 865), or
Lifeline (0800 543 354)**

If you're ever worried that someone's life is in immediate danger, call 111 or go directly to emergency services.