

WORKER EXPOSURE SURVEY

Gender and ethnicity differences in occupational exposure

Workers experience a range of exposures at work. In New Zealand, some groups might be at a higher risk of exposures at work compared to others. The work environment, occupation and industry distributions are greatly influenced by social demographic characteristics.

Little has been known about the prevalence of occupational risk factors by gender and ethnicity in New Zealand. The Worker Exposure Survey conducted by the Centre for Public Health Research (Massey University) investigated the differences in occupational exposures between men and women; and New Zealand Māori and Non-Māori.

Workforce disparities

There are substantial differences in occupational exposure prevalence between men and women and Māori and non-Māori. The differences between men and women are in part an outcome of the sexual division of labour.

There were higher proportions of females in the occupation groups: professionals (NZSCO 2), technicians and associate professionals (NZSCO 3), clerks (NZSCO 4); and, service and sales workers (NZSCO 5). Higher proportions of males were in the occupation groups: legislators, administrators and managers (NZSCO 1), agricultural and fishery (NZSCO 6), trades (NZSCO 7); and, plant and machine operators and assemblers (NZSCO 8). Similar proportions of females and males in the elementary occupational group (NZSCO 9).

Māori were over-represented in the following occupational groups: services and sales workers (NZSCO 5), plant and machine operators and assemblers (NZSCO 8), and, elementary occupations (NZSCO 9); and, underrepresented in the occupation groups: legislators, administrators and managers (NZSCO 1), professionals (NZSCO 2), clerks (NZSCO 4), and trade workers (NZSCO 7).

Gender

Chemical and physical risk factors

Males worked more paid hours per week on average and reported higher prevalences of all chemical risk factors (including dust), working night shift, and irregular hours.

Females reported higher prevalences of exposure to repetitive tasks and working at a very high speed, whereas males reported higher prevalences of lifting, working in a cold/damp environment, working outside, using tools that vibrate and exposure to loud noise.

Psychological risk factors

Females reported higher prevalences of being satisfied or very satisfied with their current work. However, men and women reported the same prevalence of having a very or extremely stressful job.

Use of personal protective equipment (PPE)

Males reported a higher prevalence of PPE use and higher prevalences of all individual PPE items.

By occupational group

There were similar prevalences between males and females for dust exposure for agricultural workers and oils and solvents and acids or alkalis for elementary occupations.

For lifting, females reported higher prevalences among professionals (including nurses) and plant and machine operators and assemblers.

Ethnicity

Chemical and physical risk factors

Māori workers are more likely to be exposed to physical risk factors (eg lifting and loud noise), even when adjusting for age, socioeconomic status (SES), and occupational and industry groups. Māori reported higher prevalences of both night shifts and regularly working outside the hours of 7.00 am – 8.30 pm.

Exposure to both chemical and physical risk factors was more prevalent among Māori men compared to Māori women. For example, Māori men were more than twice as likely to report lifting compared to non-Māori men, even after adjustment for age, SES, occupation and industry.

Māori women were more likely to report exposure to dust and smoke, fume or gas but less likely than non-Māori women to report exposure to oils and solvents. Similar to Māori males, Māori females were more likely to be exposed to all physical risk factors.

Psychological risk factors

More than 70% of Māori reported being satisfied or very satisfied with their current work. Rates for contact and cooperation between the participant and senior management were generally lower. Māori reported higher prevalences of being satisfied and very satisfied with their current work compared to non- Māori.

Non-Māori reported higher prevalence of moderate stress at work (45% compared to 39% for Māori). Non-Māori males were more likely to report having moderate and very or extremely stressful jobs.

Use of personal protective equipment

Māori and non-Māori reported very similar levels of PPE use within occupational groups, other than agricultural and fishery workers where non-Māori workers reported higher use of PPE.

Findings implications

The results highlight the importance of considering demographic characteristics such as gender and ethnicity in occupational health and safety prevention initiatives. The survey provides substantially more detail on gender and ethnicity broken down by specific occupations and exposures which will be useful when designing interventions in a range of sectors and for specific occupations within these sectors, and for workers at greater need.