WORK HEALTH AND SAFETY RESEARCH HORIZON SCAN, SCOPING REVIEW AND EVIDENCE GAP MAPPING PROJECT

Addendum: Technical overview report

A report prepared for Safe Work Australia

ACADEMY OF THE SOCIAL SCIENCES IN AUSTRALIA

ATSE

Introduction

A total of **2,390 records (34% of the dataset)** were neither assigned taxonomy tags nor screened to a priority area and were therefore excluded from the main analysis. This addendum provides a bibliometric overview of these records to clarify why they were not included and how they compare with the rest of the sample.

Bibliometric analysis suggests these records are **complementary to the WHS evidence base**, and are largely concentrated in health and biomedical fields. They focus on how health outcomes arise across populations and environments, including exposure–disease relationships, patterns of illness and injury, and the distribution of risk across groups. In some cases, the work includes occupational groups or examines exposures that may occur in workplace settings.

However, the work is usually framed in terms of general health outcomes, population-level risk factors, or clinical and epidemiological analysis, rather than workplace determinants. Where workers are included, they are often part of a broader population and the role of work in shaping risk is not explicitly described.

As a result, these records are difficult to interpret consistently within a WHS framing, particularly where the influence of work is indirect or unspecified. Some research examines exposures or risks that occur across multiple settings (not only workplaces), and in other cases titles and abstracts provide insufficient detail for confident classification. Overall, this set of records does not indicate a gap in the WHS evidence base; rather, it represents adjacent health research where links to work and workplaces are not consistently articulated.

Bibliometric overview

This section provides a high-level overview of the disciplinary, conceptual, and publication characteristics of the untagged and unscreened records, and how this body of research relates to the broader WHS evidence base.

Disciplinary profile

The Field of Research (FoR) profile shows a strong concentration of publications within health-related disciplines.[1] As shown in Table 1, Health Sciences and Biomedical and Clinical Sciences account for the majority of records. Secondary contributions are observed in commerce and management, engineering, psychology, and environmental sciences, though these fields are more weakly represented. Overall, the untagged and unscreened sample is primarily composed of research framed within clinical, biomedical, and population health domains.

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[1] *Australian Bureau of Statistics. Australian and New Zealand Standard Research Classification (ANZSRC), 2020: Fields of Research (FoR). Cat. no. 1297.0. Canberra: ABS, 2020. https://www.abs.gov.au/statistics/classifications/australian-and-new-zealandstandardresearch-classification-anzsrc/latest-release.*

FOR code	Discipline	Publications
42	Health Sciences	1167
32	Biomedical and Clinical Sciences	860
35	Commerce, Management, Tourism and Services	399
40	Engineering	105
52	Psychology	76
41	Environmental Sciences	75

Table 1: Top two-digit Field of Research (FoR) codes represented in the untagged and unscreened records, showing publication counts by discipline.

Concept profile

Table 2 summarises six concept clusters within the untagged and unscreened records (see Figure 1 for a visualisation). Cluster 1 centres on epidemiological and occupational exposure research, with high-frequency concepts such as risk factors, risk, occupational exposure, and cohort study. Cluster 2 is dominated by health care and COVID-19-related concepts, particularly health, healthcare workers, participants, and nurses.

Figure 1 provides a visual representation of these clusters, highlighting the relative prominence of high-frequency concepts and the extent to which clusters sit closer together (more related) or further apart (more distinct). Consistent with Table 2, clusters 1–5 form a broader health and epidemiology-focused grouping, while cluster 6 appears as a smaller, more distinct theme. Cluster 3 focuses on workers, workplace settings, and occupational outcomes. Cluster 4 reflects review-based and intervention-oriented research, including systematic review, meta-analysis, physical activity, and intervention. Cluster 5 captures musculoskeletal health and survey-based research, with pain, back pain, prevalence, and low back pain as dominant concepts. Cluster 6 forms a smaller but distinct grouping around HIV, sex work, and sexual health research.

Together, these clusters reinforce that the untagged and unscreened records are oriented to health, epidemiology, care settings, and specific exposure or population groups, with workplace relevance varying by topic.

Cluster	Description	Top five concepts (occurances)
1	Clinical and exposure-based epidemiology	risk factors (203), risk (132), occupational exposure (110), cohort study (94), case-control study (77)
2	Health care, COVID-19, and care settings	health (152), healthcare workers (141), participants (124), nurses (93), healthcare (72)
3	Workers, workplace conditions, and occupational outcomes	workers (179), workplace (82), employees (63), return to work (44), work environment (44)
4	Review, intervention, and health behaviour research	systematic review (126), high risk (83), meta-analysis (80), physical activity (80), intervention (79)
5	Musculoskeletal health and cross-sectional survey research	cross-sectional study (79), pain (78), back pain (55), prevalence (52), low back pain (50)
6	HIV, sex work, and sexual health research	sex workers (50), cross-sectional survey (42), female sex workers (37), regression analysis (32), logistic regression analysis (27)

Table 2: Six concept clusters identified in the untagged and unscreened records, showing each cluster's theme and the five most frequent concepts with occurrence counts.

Author profile

As shown in Table 3, authorship is highly concentrated, with a small number of researchers contributing repeatedly to the dataset. Lin Fritschi, Geza Paul Benke, and Deborah Catherine Glass have the highest publication counts, followed by Alison Reid and Malcolm Ross Sim. Affiliations are concentrated at Curtin University and Monash University, suggesting output is driven by a small number of established research groups.

Author	Organisation	Publications
Lin Fritschi	Curtin University	59
Geza Paul Benke	Monash University	56
Deborah Catherine Glass	Monash University	55
Alison Reid	Curtin University	42
Malcolm Ross Sim	Monash University	37

Table 3: Most prolific authors in the untagged and unscreened records, showing their primary organisation and number of publications.

Publication profile

Table 4 indicates publications are concentrated in a small number of journals, with Occupational and Environmental Medicine clearly dominant, followed by *International Journal of Environmental Research and Public Health* and *PLOS ONE*. These are complemented by a mix of occupational health and general medical journals, including *Journal of Occupational and Environmental Medicine and BMJ Open*.

Overall, the source pattern suggests this body of work is primarily published in epidemiology, exposure science, and public health journals, with some overlap into occupational health. The presence of large generalist outlets alongside more specialised journals points to a broad, health-oriented publication base rather than one centred on WHS research.

Source title	Publications
Occupational and Environmental Medicine	107
International Journal of Environmental Research and Public Health	51
PLOS ONE	35
Journal of Occupational and Environmental Medicine	27
BMJ Open	19

Table 4: Top publication sources (journals) for the untagged and unscreened records, showing the number of publications per source title.

Organisational profile

Table 5 shows research output is concentrated within a small number of large, research-intensive universities. Monash University is the most prominent contributor by a substantial margin, followed by The University of Sydney and the University of Queensland. UNSW Sydney and the University of Melbourne also contribute significant publication volumes.

This pattern suggests the untagged and unscreened dataset is driven by a relatively small institutional base, centred on major Australian universities with established capacity in health and biomedical sciences. The distribution is consistent with the broader dataset, where a small number of organisations account for a large share of research output.

Organisaiton	Publications
Monash University	331
The University of Sydney	245
University of Queensland	202
UNSW Sydney	167
University of Melbourne	161

Table 5: Organisations with the highest publication output in the untagged and unscreened records, showing publication counts per organisation.

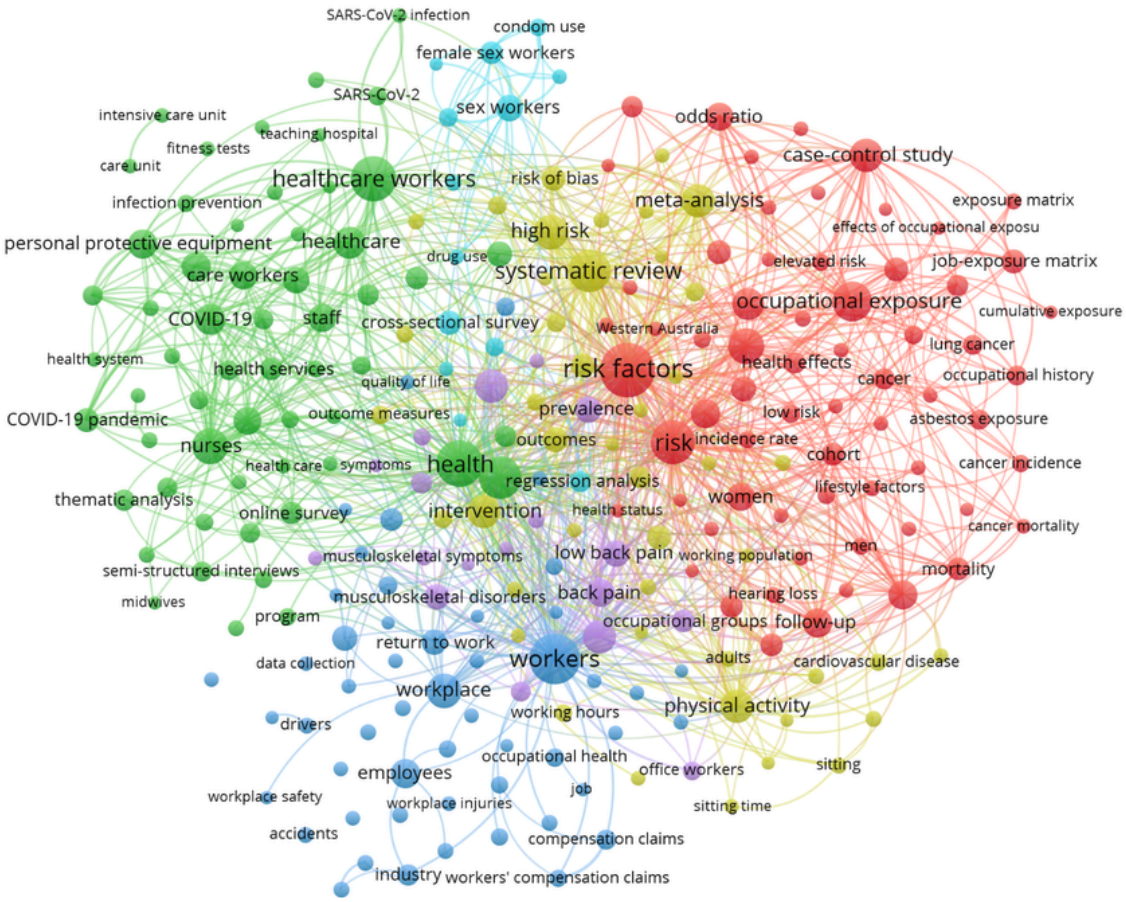

Figure 1: Concept map visualising the six clusters summarised in Table 2, generated in VOSviewer, with label size indicating concept frequency (occurrences) and proximity reflecting stronger co-occurrence relationships between concepts.