

4.O. Pitch presentations: Migrant population health

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**Are migrant workers at greater risk of workplace deaths?
A systematic review and meta-analysis**

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Background: Globally, 170 million individuals migrate for work. Yet, evidence on their mortality risk remains unclear. Our aim was to synthesize global evidence on migrant worker mortality risk compared to local workers and to identify the multiple intersecting social determinants of mortality.

Methods: We conducted a systematic review of peer-reviewed literature which reported on mortality outcome of migrant workers. Studies published between 1 Jan 2000 to 17 Jan 2023 in English were searched in MEDLINE, Embase, PsycINFO, and Ovid Global Health. Meta-analysis using random effects model was used to

calculate pooled estimates and narrative synthesis was used to develop a data-driven framework on intersectional social determinants.

Results: Out of 11,495 identified records, 44 were included, of which 11 were pooled in meta-analyses. The combined migrant worker death count was 44,338, with data from 16 countries, including migrants from agriculture, construction, and service industries. Compared to local workers, migrant workers had a higher risk of fatal occupational injury (pooled RR = 1.71, 95%CI: 1.22-2.38, $I^2 = 99.4\%$), and a lower risk of all-cause mortality (pooled RR = 0.94, 95%CI: 0.88-0.99, $I^2 = 90.7\%$). Key social determinants associated with increased mortality risk were either migration-related (e.g. lower language proficiency, undocumented status) or labour-related (e.g. precarious employment, labour migration policies) interacting over migrant workers' life course.

Conclusions: As the largest evidence synthesis to date, these findings indicate that migrant workers have higher fatal occupational injury rates than local workers, indicating the need for tailored protections for migrant workers. These data confirm that the all-cause mortality advantage observed in migrant populations applies to the working population. Future interventions should be designed to address both migration- and labour-related determinants of migrant worker health.

Key messages:

- Migrant workers have a higher risk of workplace fatality despite being generally healthier than local workers, explained by structural determinants such as precarious employment.
- Future interventions must address migration- and labour-related social determinants of health at structural levels, such as extending labour protection laws to migrant workers.