Results Most of the return migrant workers who had long term (>1 years) exposure with solvents, biological or chemical occupation have less than the normal sperm counts than non-migrant cases. BMI was normal but the mental stress on return migrant workers having more than others. Clinical findings of less than 20 million/mL sperm concentration, progressive motility 32%, Odds ratios (ORs), after allowing for confounding, were 2.07 (95% confidence interval (95% CI) 1.24 to 3.44) for 1–3 years exposure to solvents and 3.83 (95% CI 1.37 to 10.65) for more than 3 years exposure. Chances of fertilization was at least 1–2 year among long term migrant return workers.

Conclusion Occupational hazards in reproductive life is more seen among the mental stress workers. It may be due to improper use occupational safety clothes, equipment etc. Proper counselling, Workplace safety rules and regulation policy should be clearly documentation for all migrant workers. Occupation physician screen all workers health every 3 months. Education, awareness and changing attitude of work style is essential in this globalization era.

Background The risk of suicide varies across occupations. However information is limited in South Africa. Surveillance data are vital to raise awareness of suicide risk for effective interventions in workplaces.

Method To assess trends in suicide-related mortality by occupation, we analysed underlying cause of death data and occupation information from vital registration data from Statistics South Africa. Suicide (X60-X84) was coded using the 10th Revision of the International Classification of Diseases (ICD-10). Occupation groups were based on the South African Standard Classification of Occupations (SASCO) groups: (1) managers, (2) professionals, (3) technicians, (4) clerks, (5) service workers, (6) skilled agricultural and fishery workers, (7) craft and related trade workers, (8) plant and machine operators and (9) elementary occupations. Multivariate logistic regression analyses were performed to calculate mortality odds ratios (MOR) for occupation groups in men and women, adjusting for age, year of death, education level, marital status and province of death.

Results The 20 year study examined 7 113 episodes of suicide in South Africa of all persons of working age from 1997 to 2016. Deaths by suicide increased from 1997 (n=93, 0.05%) to 2016 (n=389, 0.15%), nptrend, p<0.001. Among men, the risk of suicide was highest in skilled agricultural and fishery workers (MOR=3.0, 95% CI 1.75–5.16). Among women, risk of suicide were highest in skilled agricultural and fishery workers (MOR=2.7, 95% CI 1.03–6.84) and clerical workers (MOR=2.40, 95% CI 1.29–4.46).

Conclusion The results show that agricultural and fishery workers are at highest risk of suicide in men and women of working-age. There is a need for future studies to investigate explanations for the observed differences across occupations, particularly in people employed in lower skill-level groups.