The burden and social determinants of occupational diseases

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Occupational and Environmental Health (OEH)

- OEH integral part of Public Health
- The work-place is recognized globally as a key social-determinant of health
- Any separation of OEH from Public Health is artificial
- OEH is included as part of the Public Health fabric of health systems in developed and developing countries:
  - USA CDC and NIOSH
  - Public Health England
  - Public Health Foundation of India
• **15.3 million** people go to work everyday, formal economy
• Occupational burden function of exposure intensity and duration
• Economic benefits to retain & build labour productivity
• This requires keeping workers healthy, working and out of poverty
• Requires understanding of exposure-disease pairs
What are occupational diseases?

**Definition:** Diseases contracted primarily due to exposure to work-related risk factors (WHO)

The WHO Global Plan of Action on Workers’ Health:

1. Improving the diagnosis
2. Reporting and registration of occupational diseases
3. Building capacities for estimating the occupational burden of diseases
Social determinants of occupational diseases in SA include:

1. High unemployment
2. Extreme wealth inequalities
3. Conditions of Work
4. Decent Work Deficit
5. Work in the informal economy
6. Health inequalities
7. Education and skills level
Population Health Risk Factors

Global, Both sexes, All ages, 2015

Behavioral

Metabolic

Environmental

Occupational risks a subset

DALYs per 100,000

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NATIONAL INSTITUTE FOR OCCUPATIONAL HEALTH
Division of the National Health Laboratory Service
Occupational and Environmental Risk Factors in South Africa, GBD 2015

South Africa, Both sexes, All ages, 2015

Deaths per 100,000

Ambient particulate matter
Household air pollution
Unsafe water
Handwashing
Unsafe sanitation
Lead
Occupational asbestos
Occupational injury
Occupational particulates
Ozone
Occupational diesel
Occupational SHS
Radon
Occupational silica
Occupational asthmagens
Occupational nickel
Occupational PAH
Occupational sulfuric acid
Occupational arsenic
Occupational benzene
Occupational chromium
Occupational cadmium
Occupational formaldehyde
Occupational beryllium
Occupational trichloroethylene
Occupational noise
Occupational ergonomic

HIV/AIDS & tuberculosis
Diarrhea/LRI/other
NTDs & malaria
Maternal disorders
Neonatal disorders
Nutritional deficiencies
Other group 1
Neoplasms
Cardiovascular diseases
Chronic respiratory
Cirrhosis
Digestive diseases
Neurological disorders
Mental & substance use
Diabetes/urog/blood/endo
Musculoskeletal disorders
Other non-communicable
Transport injuries
Unintentional inj
Self-harm & violence
War & disaster

Clear selection

Occupational and Environmental Risk Factors in South Africa, GBD 2015
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Occupational and Environmental Risk Factors in South Africa, GBD 2013
Occupational and Environmental Risk Factors in South Africa, GBD 2015
• Every 15 seconds, a worker dies from a work-related accident or disease. Every 15 seconds, 153 workers have a work-related accident.

• Every day, 6,300 people die as a result of occupational accidents or work-related diseases – more than 2.3 million deaths per year.

• 317 million accidents occur on the job annually; many of these resulting in extended absences from work.

• The human cost is vast and the economic burden of poor occupational OHS practices is estimated at 4 percent of global Gross Domestic Product each year.
Occupational Tuberculosis

- TB is compensable for Health Workers exposed in workplace settings
- TB is compensable for workers exposed to silica dust in different industries eg mining and construction

- “There are 41,810 cases of active TB in South African mines every year. It is eight percent of the national total, and one percent of the population, very unfortunately,”
- “It is the highest incidence of TB in any working population in the world. It affects 500,000 mineworkers, their 230,000 partners, and 700,000 children.” (Minister of Health 2014)
1. Consolidate **focus on prevention** through surveillance and monitoring of **environmental and occupational risk factors**

2. Enable cross-functionality and **evidence informed policy for OEH**

3. Align with **international trends**: work = social determinant of health

4. The World of Work can be utilized more optimally to prevent occupational and environmental exposures
Thank you