Recommendations for future epidemics and strengthening OH system resilience

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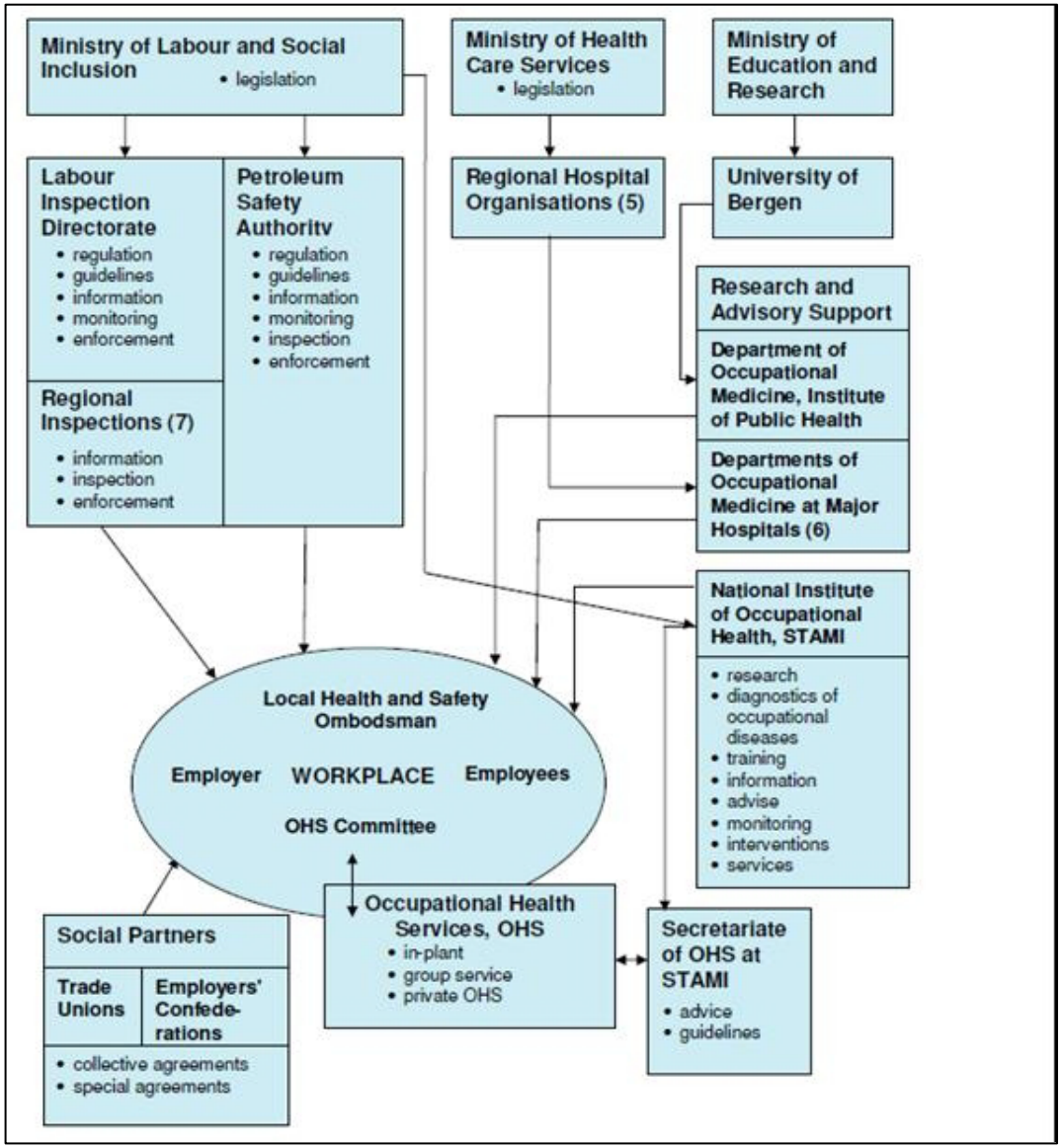
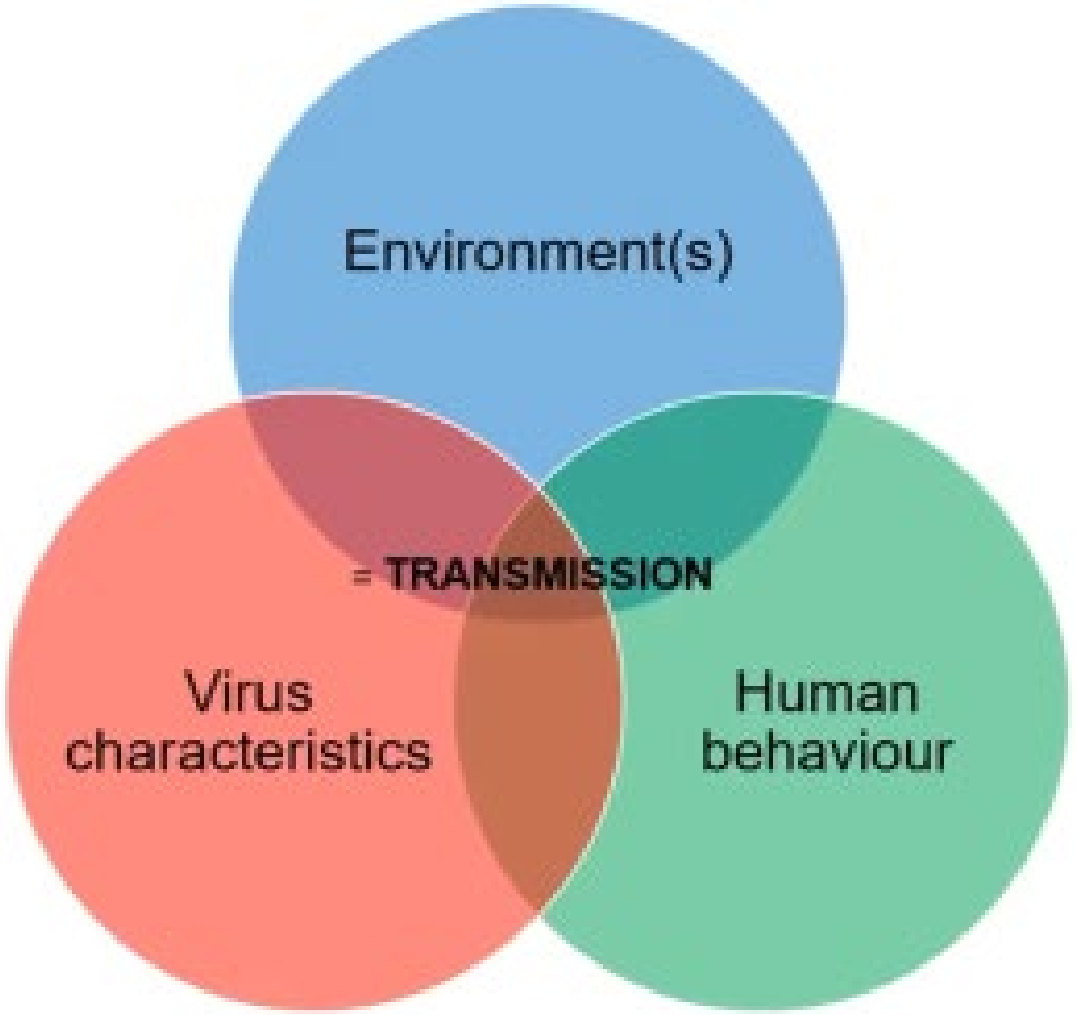
Outline

- Components of an occupational health system
- Hazardous infectious agents – the triad
- Relationship between occupation, socio-economic status and COVID-19
- Recognisable strengths of the occupational health system
- Shortcomings of the response to COVID-19
- Recommendations for strengthening resilience of the occupational health system
- Areas for future research

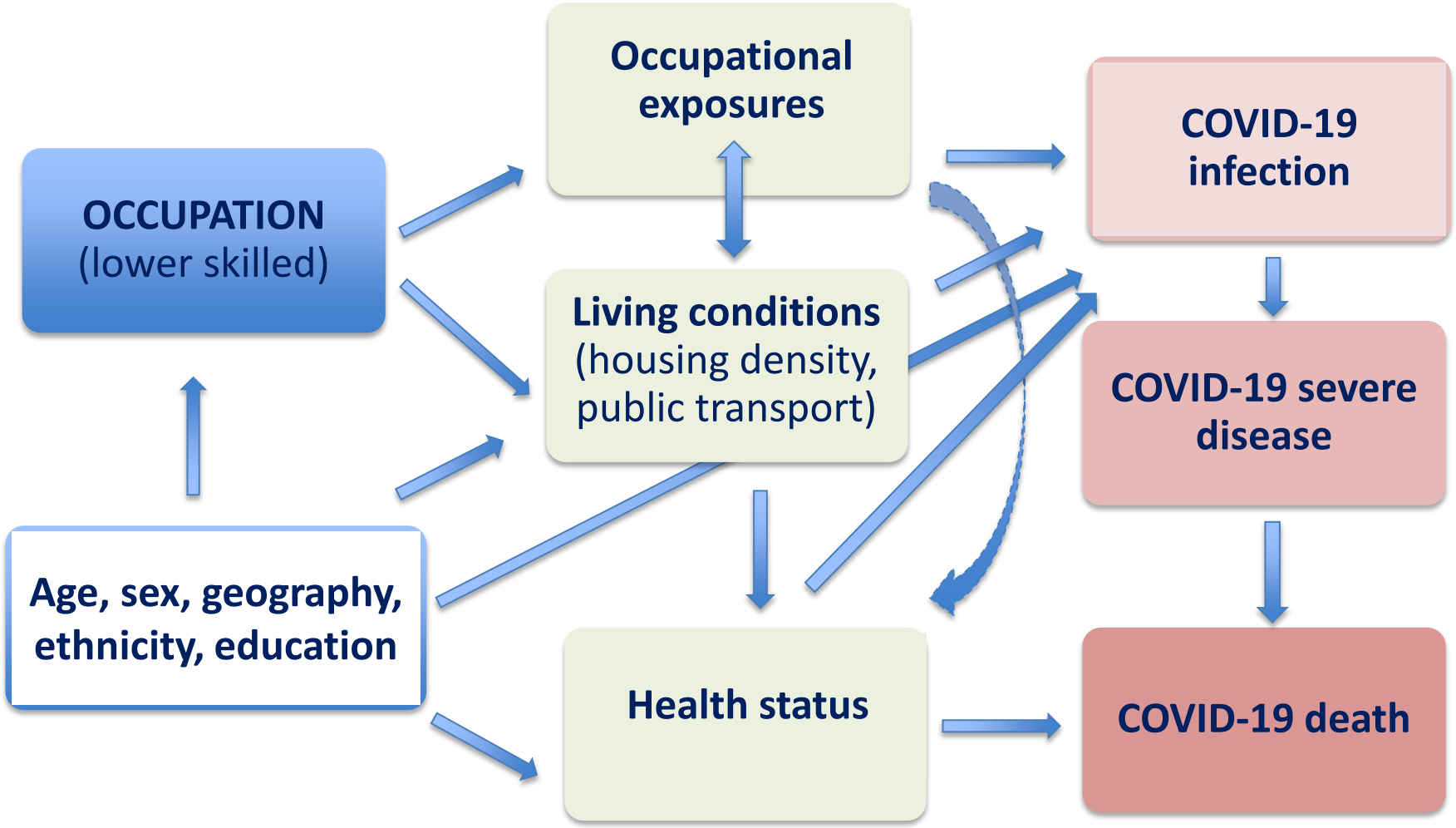
Components of an occupational health system



Hazardous Infectious Agents – the triad



Relationship between occupation, socio-economic status and COVID-19 – an intricate web



(Pearce, EPICOH, 2021; Carlston, AJIM 2021)

Recognisable strengths of the occupational health system in South Africa

- NEDLAC – brought together government (National Dept. of Employment and Labour, National Dept. of Health), employers, unions with the support of OHS academic experts:
  - OHS and Compensation Directives aimed at COVID-19
  - Support of national vaccination rollout
  - Code of Practice Managing Exposure to SARS-CoV-2 in the Workplace
- NDOH OHS workstream developed guidelines and risk assessment tools that gave effect to the Directives
- Partial existence of workplace-based occupational health services
- Training and capacity building initiatives (on-line)
- Development of a nascent online occupational health surveillance system aimed at COVID-19 that has the potential to provide dynamic reporting from workplaces if adequately resourced.

Shortcomings of the occupational health system response to COVID-19

National/Provincial response

- Inability to respond rapidly as the pandemic unfolded
- Exclusion of the occupational health from broader public health response at national and provincial levels (narrow infection prevention control approach)
- Fragmented response of various stakeholders in government – health, mining, non-mining, compensation authorities
- Limited focus on SMME and the informal sector
- Poor capacity among inspectorate to enforce preventive aspects of hazardous biological (infectious) agents
- Delayed vaccine rollout to workers in high-risk economic sectors

Workplaces

- Decreased capacity of workplaces to respond - poor occupational health service provision (<15%) and under-developed occupational health services (risk assessments, non-evidence practices e.g. temperature screening, fogging)
- Poor implementation of COVID-19 measure by workplaces (~56% compliance)

Shortcomings of the occupational health system response

OHS training of workers

- Surveys and audits of health workers - ~50% received appropriate training, ~50% confident about overall knowledge of COVID-19

Surveillance systems

- Manual data capturing systems at workplaces
- Inadequate surveillance: absent surveillance system and poor compliance from workplaces in submitting data (~3% of registered businesses, 12% of formal sector employees)
- Poor sharing of surveillance data by official agencies dealing with communicable disease data – and no capturing of occupational aspects on COVID-testing forms
- Lack of real-time insights into patterns of infection, morbidity, and mortality across economic sectors and occupational groups and contributory factors in order to develop improved interventions to reduce workplace risks

Recommendations

National Interventions

- Strengthen the **occupational health system** (alignment, enhanced linkages, remove fragmentation)
- Development of a proactive **framework for a comprehensive response** (technical committee)
- Dedicated **OHS agency** including **medical inspectorate** (rapid epidemiological approaches to investigate outbreaks)
- **Real-time surveillance**, data sharing, collaboration and integration

Workplace Interventions

- Changes in the world of work – **working from home – OHS challenges** (e.g. ergonomic, working hours)
- **Refine risk assessment** (tools)
- **Strengthen risk mitigation measures** (ventilation, vaccination)
- **Improved measures and training required for workers in non-healthcare settings** with a "low perception" of risk
- Increase **provision** and enhance **capacity** of occupational health services (? mandatory)
- Support to SMME/informal sector
- Employer **collection of ongoing real-time surveillance data** is crucial

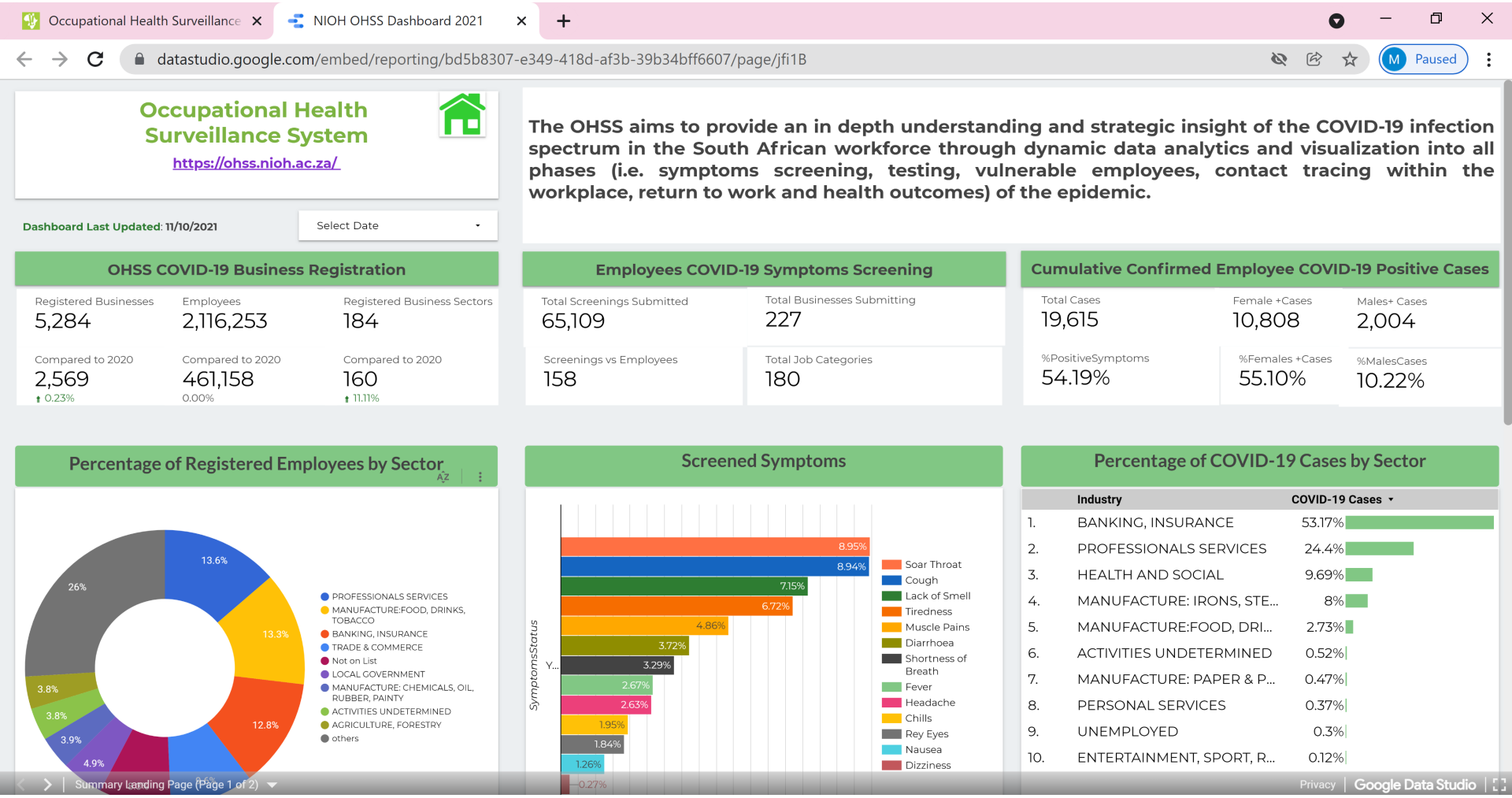
A new framework for Occupational Health

- Fragmented approach has led to the shortcomings in response identified previously
- An **integrated, focused and independent entity** that drives responses to the identified priorities in occupational health
- International examples:
  - The Health and Safety Executive (HSE-UK)
  - The European Union Occupational Safety and Health Administration EU-OSHA)
  - The United States Occupational Safety and Health Administration (OSHA)
  - The Tanzanian Occupational Safety and Health Agency
- Can a NIOH with revised mandates located within NAPHISA serve this role?

Occupational Health Surveillance Systems

- Critical to determining risk sectors, emerging diseases, outbreaks
- Absence of a national system (except for health workers in the public sector)
- Poorly managed at workplace level
- Emergence of OHSS for the COVID-19 epidemic

The OHSS in South Africa



Integrated Data Management for Workplace Intervention

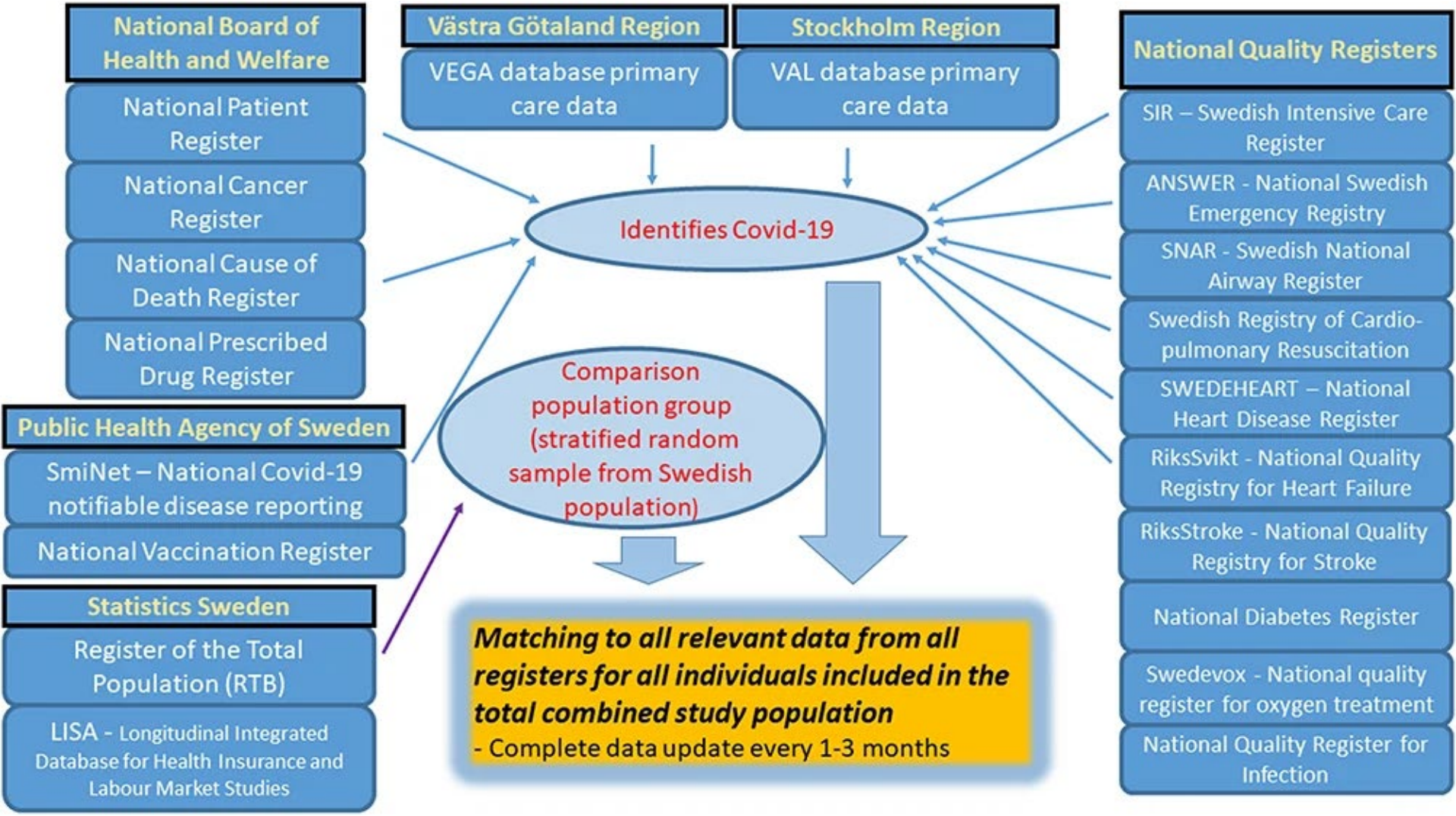
Variety of Data Sources

- Private sector businesses
- Public sector
- NICD - NMC and sentinel hospital admissions database (DATCOV)
- NHLS laboratory testing data
- Private laboratory testing data
- Compensation Fund
- National Department of Health
- Department of Employment and Labour
- Mining Sector

New Data Approaches

- Recognise that work can be a key driver in transmission in infectious disease epidemics
- Collect appropriate work data
- Ensure case linkage across different databases to address key research/intervention questions
- Establish appropriate custodial arrangements over data management and access

The Swedish Data Integration Model:
Ideal or Achievable?



Areas for Future Research

- **Macro issues**: optimal occupational health systems, effectiveness of legislation and enforcement approaches, exposure standards
- Further research on **identifying occupations at higher risk of infection** and **specific work characteristics** that contribute to these risks
- Identify **occupations** likely to present with **increased risk for severe outcomes** of infection (hospitalisations, delayed recoveries and death – possibilities include:
  - dustier occupations (e.g. exposure to silica)
  - exposures to workplace allergens
  - exposures to workplace metals
- Understanding **delayed recovery syndromes and fitness to work** approaches
- Understanding the **protective value of vaccination in the vulnerable** worker, particularly in preventing infection, severe disease and delayed recovery
- Investigating the **effectiveness of different ventilation approaches** in preventing or controlling aerosol transmission in specific types of workplaces

THANK YOU