OHS in Canada: The Province of Alberta’s Role
Alberta

- One of the strongest economies in Canada
- 4th largest province in Canada
- Area of 255,000 square miles
  - same size as the state of Texas
  - from the Rocky Mountains to the lush boreal
  - from fertile prairies to desert badlands
- 182,000+ employers
- Employment options are almost endless
  - Labour force = 2.4M people (July 2014)
  - Unemployment rate = 4.7% (July 2014)
  - Work in trades, professional fields and everything in between
Alberta Employment by Industry, 2013

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number Employed (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Trade</td>
<td>243.7</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>235.3</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>177.6</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>135.7</td>
</tr>
<tr>
<td>Educational Services</td>
<td>120.0</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>117.4</td>
</tr>
<tr>
<td>Other Services</td>
<td>111.6</td>
</tr>
<tr>
<td>Finance, Insurance, Real Estate and Leasing</td>
<td>110.2</td>
</tr>
<tr>
<td>Public Administration</td>
<td>89.5</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>64.3</td>
</tr>
<tr>
<td>Information, Culture and Recreation</td>
<td>77.3</td>
</tr>
<tr>
<td>Business, Building and Other Support Services</td>
<td>74.1</td>
</tr>
<tr>
<td>Construction</td>
<td>231.3</td>
</tr>
<tr>
<td>Mining and Oil and Gas Extraction</td>
<td>171.2</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>138.4</td>
</tr>
<tr>
<td>Agriculture</td>
<td>63.3</td>
</tr>
<tr>
<td>Utilities</td>
<td>18.7</td>
</tr>
<tr>
<td>Forestry and Logging with Support Activities</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Services-Producing sector: 1,585.7
Goods-Producing sector: 625.3

Occupational Health & Safety

• Branch of provincial government
  – Ministry of Jobs, Skills, Training and Labour

• Promote health and safety through partnerships, resources, education and enforcement of the Occupational Health and Safety Act

• Focus on prevention of workplace injuries and illnesses
Alberta Worker’s Compensation Board (WCB)

- Independent organization
- Insurance program
- Helps injured workers return to work
- Covers approximately 80% of workers in Alberta
  - Excludes: Farming and Ranch, Voluntary/Exempt employers, etc.
- Entirely funded by employer contributions
- Provides claims data to OHS for surveillance and reporting purposes
OHS in Alberta: Who We Are
Occupational Health & Safety

1. Inspections Program
2. Investigations and Mining
3. Partnerships in Injury Reduction
4. Quality Assurance, Training and Development

1. OHS Policy and Legislation Business Unit
2. Innovation and Strategic Priorities Business Unit
3. Occupational Disease and Injury Prevention Business Unit
What is the Occupational Disease and Injury Prevention Section?

OHS Policy and Program Development Branch

Occupational Disease and Injury Prevention Section
  Director: Dr. Lisa Ross-Rodriguez

Informatics  Surveillance  Research  Evaluation  Exploration
Work in Progress
Work-Associated Population Profiles within Emergency Departments (WAPPED)

- Foundational work for further surveillance data considerations
- Purpose is to assess the utility of occupational status information within Emergency Department (ED) Data

- Survey patients waiting in various Alberta hospital EDs, to:
  - Determine the profile of patients who visit Alberta EDs
  - Identify the proportion and characteristics of work-related ED visits
  - Correlate work-related ED visit data with reporting to WCB

- Researchers:
  - Dr. Brian Rowe, Dr. Maria Ospina
Wellness of Workers (WoW)

- Partnered with the International Association of Heat and Frost Insulators and Allied Workers Local 110
  - Investigating relationships between exposures and health outcomes and the impact of *PPE wearing behaviour* on health outcomes
  - Outcomes of interest:
    - heart and lung disease
    - other chronic diseases

- This is a prospective surveillance study
  - Unique sub-population, systematic data collection and strong methodology → expected results will be meaningful
  - ODIP funds the data analysis component

- Researchers:
  - Dr. Lyle Melenka, Dr. Muhammad Naseem and Jennifer Spring
WHAT-ME and WHAT-MEN
Women’s Health in Apprenticeship Trades - Metal Workers and Electricians (WHAT-ME)
Worker’s Health and Apprenticeship Trades – Metal Workers and Electricians (WHAT-MEN)

- Cohort study to establish whether women in welding trades, or their unborn child, were at risk from exposures to welding fumes and/or metal dust or fumes
  - Follow-up to European findings that indicate maternal exposures may reduce fetal growth and paternal exposures may increase risk of preterm delivery and small-for-gestational age
  - European study was limited by small # in exposed group

- Male cohort added to investigate possible effects of working in metalworking and electrical trades in men

- Researchers:
  - Drs. Nicola Cherry & Jeremy Beach
    (University of Alberta)
Exposure to Nanomaterials

- Little is known regarding the health impacts of nanomaterials; however, there is indication that investigation is warranted.

- Develop a sampling and analytical method for occupational hygienists to assess worker’s exposure to incidental and engineered nanomaterials (nanoparticles and nanofibres).

- Provide recommendations on the method for measuring exposure to nanomaterials in the workplace.

- Researcher:
  - Dr. Bernadette Quémerais
  - (University of Alberta)
Validating exposure methods to CNTs

- Develop a practical sampling and analytical technique to assess workers’ exposure to carbon nanotubes (CNTs)

- Verify if samplers are suitable for the collection and subsequent analysis of these particles

- Test two size specific samplers that are commercially available for the collection of CNTs

- Researcher:
  - Dr. Bernadette Quémerais
    (University of Alberta)
OHS Futures - Research Program

- Fund research that will produce information to drive evidence-informed policy decisions for Alberta’s workplaces

- Research Priorities
  - Work-related Chemical, Biological and/or Physical Hazards
  - Work-Related Surveillance, Data and Metrics
  - Work-Related Adverse Health Outcomes
  - Work-Related Psychological Hazards and Social Issues
  - Interest Populations and Non-Traditional Stakeholders
  - OHS Innovation and Occupational Disease, Illness and Injury Prevention

- Timeline
  - Applications Due → October 15, 2014
  - Contracts Awarded → December 2014

- [Link](http://work.alberta.ca/occupational-health-safety/ohs-futures.html)
Exploration? Project Work

- **Chemical Elimination, Substitution and Reduction (CESR)**
  - Initiative for toxic use reduction in Alberta
  - Tri-Ministry project with:
    - Environmental Sustainability, Research and Development
    - Alberta Health
  - Currently in the scoping phase
    - Mapping current policies to chemical lifecycle profiles
      - To identify gaps and opportunities

- **Asbestos Profile**
  - Adapted from WHO Asbestos Profile
  - Assists in identifying gaps in information related to policy/legislation, labour, infrastructure, economics and epidemiology

- **n-RAHS (Nanomaterial Risk Assessment – Health Surveillance) Pilot Project**
  - In collaboration with Alberta Innovates – Technology Futures (AITF)
  - Enhance the current health surveillance system to include early detection of potential health and safety risks related to nanomaterials
Emerging Areas

- Working with WCB Data to improve access to data

- Enhance current business practices
  - Information management
  - Surveillance protocols
  - Info-graphic and dashboards

- Explore registries
  - Workers
  - Exposures

- Actively seeking collaboration opportunities
  - Identification of Work-Related Hospital Visits
  - Access to Vital Statistics Death data
  - Tomorrow Project (cancer cohort)
  - Networking
QUESTIONS?