S/A 4071: Social/Cultural Aspects of Health and Illness:
Class 6: Environmental and Occupational Health and Illness

* Today we review the sociological implications of the major environmental/occupational health hazards

* Environmental hazards in air, water & land said to be implicated in 60-90% of cancers, & have long term impacts in many other conditions

* 50-70,000 chemicals in use, many never tested for ill effects. Nuclear waste also a problem

* Even arctic snow shows traces of chemicals

* While nobody immune from unsafe practices (unified ecosystem), pollution falls heaviest on poor (e.g. proximity to dumps/ dangerous jobs, especially in poor countries)

* Critical issues: the greenhouse effect, acid rain, depletion of the ozone layer, disposal of hazardous chemicals & medical wastes in the air, water & land

* Climate change: global warming fosters weather extremes such as droughts and flooding (but no warmer for us in NL). Health impacts include disease, heart problems, food shortages, etc. While Canada signed the Kyoto Accord, it hasn't lived up to it. More recent efforts have been even less encouraging.

* Chemicals: the few well-researched chemicals (of many that are not) are problematic for health, especially vulnerable populations (e.g. pesticides = the leading cause of poisoning in Canada). Pharmaceuticals also a problem.

Air Pollution & Human Health

* Indoor & outdoor air contribute at least low levels of pollutants linked to disease & death (nitrogen dioxide, sulphur dioxide & carbon monoxide, ozone, radon, asbestos fibers & particulates, excessive heat).

* Cities with high pollution have been shown to cut risk by cutting pollution

* Tightly sealed buildings a problem ('sick building syndrome')

* Second hand smoke very harmful/ contains many toxic chemicals

* Auto emissions/smog also a big problem: Global warming linked to increased carbon dioxide with effects on food/water supply, increased deaths during heat waves

* Burning medical wastes emits far more dangerous substances than municipal incinerators

Water Pollution & Human Health

* Industrial pollution of the great lakes /Atlantic harbors by toxic waste, municipal sewage, and pharmaceuticals.

* Overuse of water, especially by industry & agriculture ("free trade" issue)

* Over-fishing/bottom dredging hurts renewable resources (e.g. cod)

Land Pollution & Human Health

* Solid waste disposal a contentious issue (e.g. "Nimby", facilities closing when unable to meet higher environmental standards, dumping waste in poorer regions/countries)

* E-waste and food safety issues.

* Implications for decline in biodiversity in an interdependent world

Research Problems

- Complexity of the environment
- New chemicals added all the time/isolating effects hard
- Measuring tiny amounts hard
- Modeling time lag/ compensating amounts with rats hard
- Not knowing all elements in synergistic relationships
- Variable latency periods for disease with different chemicals
- Few doctors trained in environmental illness
- Definite cause-effect relationship required as proof
- Research/ medical journals usually sponsored by drug companies
- Research by "interest groups" not seen as independent
- "Good old boys" network dominating peer published research

Occupational Health & Safety

* Worldwide 2.2 million people are killed / 264 million injured every year in work-related incidents

* Statistics probably low due to low reporting rates

* Downward trend in injury statistics questionable, but may reflect shifting dangerous jobs to other countries/ tighter eligibility for compensation/ lower reporting for fear of losing job

* Hazards on the job:

(1) Physical: noise, temperature, posture, radiation)
(2) Chemical: solvents, heavy metals, pesticides, pharmaceuticals)
(3) Psychological: stress & violence

* Problems increasing due to globalization (competition to attract industry by lowering costs/regulation)

* Estimates range from 40-90% of cancers being work-related: falls heavier on the working classes

* Women face additional problems in common jobs: (e.g. clerical workers face poor lighting & ventilation, noise, toxic substances, uncomfortable furniture, monotony & stress). Retail, service workers, nurses, hairdressers, teachers, cleaners, etc all have their own risks

* Occupational stress and shift work are linked to health problems/substance abuse/psychiatric issues. Sources include short deadlines, conflict, lack of feedback, unclear duties, little influence over job, physical environment.

* All of this particularly problematic in female "pink collar" job ghettoes with low pay, low power, & little independence or control. More long-term chronic conditions vs. dramatic injury/death.

* Workers compensation tends to protect business more than workers/ commodify health/ valorize narrow medical/legal definitions

* Reproductive issues: sterility, miscarriage & genetic problems. Discriminatory occupational bans /research focused largely on women/ neglects men. Human rights concerns

* Problems in estimating prevalence of occupational diseases:

      - long latency periods prior to onset
      - lack of information/misinformation re: substances in question
      - hard to monitor
      - poor physician training in this area

* Time-lost from work: gender difference:

      -men (risk of accident/injury)
      -women (excessive demands, interpersonal relations, etc.)

* Occupational accidents, illness & death very high in the health-care industry, especially in lowest status/ low paid jobs. Nurses often report verbal/physical violence

* Agricultural work the third most health-threatening occupation (after mining & construction). Accidents, poor working conditions, pesticide exposure, & reliance on/ exploitation of poor migrant workers add to this

Other Accidents & Violence:

* Accidents a major cause of injury & death. May result from human error (alcohol use, unreasonable risk taking, driving with cell phones, sports injuries)

* Violence against women & children an important factor in ill health (19% of women said they had been sexually assaulted; higher figures for those common-law or once married). Statistics probably underestimate true incidence. Many reasons for not reporting

* Violence a cultural value, socialized to many in our society. Often used to keep women down/ negative health impacts