S/A 4071: Social/Cultural Aspects of Health and Illness:
Class 7: Environmental and Occupational Health and Illness II

* Today we will continue our review of environmental & occupational impacts on health & illness with reference to the assigned articles

(1) Sullivan & Cole: Work, Safety, Health & Compensation:

* Work is central to our health: both directly (injuries, disease), & indirectly (income impacting social structure)

* Historical work: Ramazzini, Engels

* Alternatives to capitalist policies now declining in favor of varying capitalist social arrangements to optimally produce health

* Work has 3 links to health: (1) Labour markets & employment patterns
(2) Adverse exposures on the job
(3) Health care provided for workers

* In Canada, work & health relationship recognized in *workers compensation* & *health & safety regulations*

* *Workers compensation* (1914) brought in insurance for injured workers, in lieu of common law tort liability (which was non-existent anyway). Said to prevent injured workers becoming indigent & "protected" companies from lawsuits. Basically unchanged today

* Decline in fatalities/ injuries since 1970's, but more repetitive strain injuries, soft tissue injuries, etc. Less likely to be recognized/ injured workers often must fight for compensation/ distorts statistics

* *Occupational health & safety* policy has 5 key regulatory methods:

(1) Levying premiums on firms based on history (WCB)
(2) Direct regulation of hazardous conditions, equipment & exposures (WCB or Ministry of Labour)
(3) Joint health & safety committees (Ham Committee)
(4) Enshrining workers right to refuse unsafe work (Ham Committee)
(5) Training/access to information in the workplace (Ham Committee)

* Questions arise re: workers awareness of these rights under Ham's "internal responsibility system." Also suppression/fear of reporting

* Labour markets affect health through unemployment through:

- unemployment, low wages, blue vs. white collar work, etc.
- growing numbers of women in work force
- decline in resource & manufacturing jobs & the rise of service & emotional work
- new management practices (e.g. performance based contracts)
- the growth of part time, contract, & home work
- loosening labour regulations in trade liberalization

* Workplace organization has an impact on both injuries & compensation claims.

- Low claim rates associated with delegation of authority, worker autonomy & participation, & encouragement of worker commitment.
- High claim rates associated with high employee turnover & high number of grievances by employees
- Internal responsibility system showed similar pattern, with more

cooperative workplaces having lower rates of injury
- Does downward trend in injuries lead to view that best firms will survive?

* Job structure & ill health: degree of discretion, control, social support, & effort-reward ratio impact workers' heart disease & depression. Falls heaviest on those at bottom of work hierarchy

*Governments & international organizations have all been involved in reducing the regulatory burden/ increase competitiveness. Effects?

- "flexible" internal responsibility systems (market language)
- increasing litigious WCB claims vs. lowering claims/ just working on while injured & not reporting
- balance between social needs vs. prosperity distorted
- reinforces need for more traditional regulation/inspection?

* 3 ways for organizations to improve health of workforce:

(1) Adjusting workplace organization as above
(2) Wellness, employee assistance & fitness programs
(3) Maintaining a people-friendly culture promoting attachment

* Challenge to maintain WCB/ health & safety standards/ regulations in the face of globalization: governments must balance tolerance of internal responsibility/initiative schemes with direct regulation

S. Abaidoo: Agricultural Biotechnology, the Environment & Health:

* This article focuses on the risky nature of the historical intensification of human & environmental interaction centered around agriculture

* Over time, the production of more & more food has taken priority over nature (e.g. soil exhaustion, use of chemicals). Idea of dependence on nature /ennobling the wider habitat pushed into background. May ultimately have implications for human survival

* Technological response: creation of products & processes out of living organisms for use in agriculture (e.g. “Frankenfoods”). Rapidly growing in past decade, especially in Canada

* Implications:

- safety of products?
- the commodification of nature
- attempts to triumph over nature
- questions human-nature interactions
- adding to the risk society
- ethics
- environmental impacts?

* We will review the debate over the environmental/health impacts

* Benefit arguments:

- counteracting food insecurity (e.g. in developing countries)
- cost effectiveness
- less use of chemicals benefits the environment
- reduced tillage: more retention of soil nutrients/ less soil erosion
- reducing the expansion of agriculture into fragile ecosystems
- improving access to agriculture in marginal lands
- reducing pollution associated with large-scale livestock operations (e.g. low phosphorous “enviropigs”)

*Risk arguments:

- technological fix to technologically produced problems is just "more of the same"/ a vicious cycle that will continue
- it would be better to study these things before introducing them widely, not wait for the problems to occur (i.e. phase in carefully)
- danger of interspecies transfer of GM genes in the environment creating "super weeds" requiring more chemicals to eradicate & extensively harming everything else
- pests mutating to be resistant to GM crops
- GM crops harming beneficial wild plants & animals in the food chain
- further reducing the genetic diversity of plants/ crops
- food insecurity is more related to access to resources than food supply. Argument that GM crops needed for this reason miss point

* Agricultural biotechnology & Health: little-noted health research in agricultural biotechnology blurs the boundary between agriculture, medicine & pharmacy ("biofarming" or "molecular farming" attempting to convert crops & animals into "biofactories")

* Benefit arguments:

- crops of "better nutritional value" that "enhance health"
- plants & animals can produce human proteins & "edible vaccines"
- increasing supply of needed drugs & vaccines/ prevention of illness
- reduced cost to patients & health systems
- animals growing human organs to harvest / reducing growing shortfall of human organs for transplant ("xenotransplantation")

* Risk arguments:

- potential toxicity/antibiotic resistance of GM products inadequately investigated
- use of parasitic viruses to carry desirable genes into others/ as triggers for desirable traits (what else comes along as baggage?)
- alleged “deactivation” of disease-causing aspects of carrier viruses may be imperfect/incomplete/they may recombine in new, sinister ways
- unpredictability of the GM process: previously approved products found to later contain extra gene fragments
- breaching species barriers may lead to unintended additional mutations that can’t be foreseen/ dangers to human health
-biofarming drugs ending up in the general food supply in unintended ways
-any need to segregate GM crops undercuts cost/saving arable land argument of supporters
- xenotransplantation may expose humans to diseases previously restricted to animals (some policymakers have even called for “enforced celibacy” of transplant patients. Is it worth it???)
- the slippery slope to a resurgence of eugenics
- benefits to society at large or benefits largely to capital

Conclusion:

* In both the workplace & agricultural biotechnology, there is a debate between those who want policymakers to vigorously intervene, & those who do not. There are significant health impacts either way, & these relate to issues of social, economic & political power.