Export-based agriculture and health: The case of Ecuador’s banana industry

Ben Brisbois
HESO 449B
11 March 2011
Outline

• A brief history of bananas…
• Ecuador’s banana industry
• Health impacts
• North-South collaborations for pesticide safety
• Global vision of pesticide risk in Ecuador
• Questions
Bananas and Latin American history

- United Fruit Company, Standard Fruit
- Honduras
- Colombia
- Guatemala
- Central America ➔ Ecuador
Bananas in Ecuador

• World’s leading exporter
• 2nd largest source of foreign currency
• Some small farms, family-owned and –run; majority larger farms, owned by wealthy Ecuadorians selling to exporters under contract
• Bananas and politics…
Banana farming and health

- Monoculture with low genetic diversity
- Extremely pesticide-intensive
- Controlled by US, domestic elites, with implications for social determinants of health
Occupational pesticide exposure

- Labour often drawn from peri-urban settlements, recruited by ‘capitans’ contracted by landowners
- Lack of job security, adequate pay, ability to organize in unions ➔ poor working conditions
- Neurological, dermatological, reproductive and carcinogenic effects of pesticide exposure, exacerbated by poor baseline health status
- Situation likely different on small family farms, which face other challenges
International trade, bananas and pesticides

• Structural adjustment
• WTO challenge
• Mobile companies
• Risk shifting
“Local” scale

- **Local environments**
  - Small producers (organic, fairtrade, conventional; male and female)
  - Pesticides
    - Health effects
  - Perceived effects
  - Local social context
    - Social movements (labour organizations, peasant cooperatives, etc.)

- Local governments

Risk management
The etiology of pesticide risk in Ecuador's banana industry
Interrogating knowledge translation in global health: Latin American pesticide epidemiology and pesticide risk perception in Ecuador’s banana industry

My research…
Research objective 1

- To determine the inter-relationships between international pesticide epidemiology collaborations in Latin America and their post-1980 sociohistorical context.
Pesticide “knowledge translation” in Latin America

- North-South collaborations leading to policy change
- Challenges faced:
  - Politically charged contexts
  - Difficult epidemiology
  - Non-state actors
  - Weak health systems
  - Participatory projects
Pesticides and frames

- 220,000 deaths due to pesticides worldwide (WHO, 1990) but uncertainty exists...

- Frame:
  - “Schema of interpretation”;
  - “Structure of expectation”;
  - Story, model, model or institutionalized set of practices and assumptions.

- How research is framed affects what gets studied, and how (and what is done about it).
Methods (objective 1)

- Discourse-historical analysis
  - Peer-reviewed English-language pesticide epidemiology and related articles
- Socio-historical context
  - Nicaragua, Costa Rica, Ecuador
  - Canada, U.S., Scandinavian countries
  - 8-10 key informant interviews: “interpretive thematic analysis”
Research objective 2

- To determine how epidemiology can best be mobilized to equitably and effectively reduce the health effects of pesticide exposure in Ecuador's banana industry.
Frames & pesticide risk perception

- Framing of pesticide risk depends on disciplinary, professional identity
  - Need to get workers' perspective
- Risk perception research often targets behaviour change
  - Not the source of the problem
Methods (objective 2)

- Ethnographic fieldwork within a political ecology of health approach
  - Naturalistic / participant observation
  - Key informant interviews (4-5)
  - Semi-structured interviews (30-40)
- Contextualized re: political-economic and environmental determinants of pesticide exposure and related health effects at multiple scales
Questions?

- Acknowledgements:
  - Drs. Jerry Spiegel, Anne Marie Nicol, Alejandro Rojas
  - UROCAL, OBSLA, Ecuadorian collaborators