Proposed Pathways for the Cap-and-Trade HIA

CAT Public Health Workgroup Meeting
December 17, 2009
California Department of Public Health

Meeting Objectives

• Overview of Cap-and-Trade Proposed Draft Regulation

• Overview of initial thoughts on scope, pathways, and research questions for HIA

• Discussion of HIA questions

• Record stakeholder comments/recommendations
Health Impact Assessment (HIA)

1. Screening
2. Scoping
3. Analysis
   - Profile existing baseline conditions
   - Impact analysis
   - Identification of cap-and-trade policy levers to maximize positive health outcomes
4. Reporting
5. Monitoring

Today’s Questions

• Is the proposed scope reasonable and feasible?
  ▪ Should we include all covered sectors or limit to stationary large emitters?
  ▪ How to deal with climate change health impacts?

• What about the draft health pathways?
  ▪ Additional pathways?
  ▪ Pathways that seem less important?

• What about the draft research questions?
  ▪ Additional research questions?
  ▪ Research questions that seem less important?
What Health Impacts to Include?

- Examples identified through literature review and expert consultation

- Examples of health impacts:
  - Air pollution (criteria air pollutants, toxics), land use and related health impacts, ecological impacts, traffic, employment, noise, economic impacts, heat, etc.

- Final non-air related impacts to include will be based on:
  - Impacts of highest public health significance

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Health Impact Assessment: Proposed Cap-and-Trade Program

Proposed HIA focuses on the potential impacts of the proposed Cap-and-Trade program design on the health of people in California, through multiple pathways, with particular attention to vulnerable and already impacted communities.
Big Picture: Cap & Trade HIA Components

Potential health impacts can be positive, negative or neutral.

Choices Available to a Covered Entity

Reduce emissions (e.g. install new boilers, increase energy efficiency, improve maintenance, decrease output etc.)
Allowance Allocation Strategy

Potential health impacts can be positive, negative or neutral

Allowance & Offset Trading

Potential health impacts can be positive, negative or neutral
Example: Allowance Trading

- Allowance trades
  - Inside Community
    - Possible changes in co-pollutant emissions and other risk factors
  - Outside Community
    - Foregone emission reductions in community purchasing allowance or offset
    - Possible increase in respiratory disease, cancer, cardiovascular disease

Example: Offset Trading

- Offset Project
  - Location
    - Outside Community
      - Foregone benefits in community of facility purchasing offsets
      - Potential increase in respiratory disease, cancer, cardiovascular disease
    - Inside Community
      - Reduced CO₂ levels
      - Potential health impacts
      - Offset Type (e.g. urban forestry)
      - Potential positive health impacts (e.g. nutrition, jobs, social capital, pollution absorption)
      - Potential negative health impacts (e.g. pesticide exposure)

¹Potential health impacts can be positive, negative or neutral
Example: Entity Reductions

- **Entity Reductions**
  - Installation of combined heat and power system (CHP)
  - Potential decreased criteria pollutant emissions (compared to older boiler)
  - No Change in co-pollutants
  - Potential increased criteria pollutant emissions (when compared to a new boiler of similar type)
  - Potential increased respiratory symptoms and/or hospitalization for heart or lung diseases

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Cap & Trade HIA Questions

Revenue

- How much revenue will there be?
- How can the revenue be used? 
  *e.g. tax rebate, community development*
- How will the revenue be distributed? *e.g., how much will go to impacted communities? Will revenue go to all communities in CA?*
- For each use of revenue (with associated amounts and locations), what are the health impacts? 
  *e.g. building a park may lead to PA*
- Will different pricing strategies lead to different reductions in emissions? *If so, what are the associated health impacts?*
Cap & Trade HIA Questions
Trading Allowances

• How many allowances can be traded?

• Are trades restricted according to some criteria? e.g., community impact, amount of emissions. What are the likely scenarios for who will trade and where? What are the health impacts of restricting trades based on community or facility characteristics?

• If an allowance is traded out of a community, what are the foregone changes (e.g., AQ, traffic, noise, employment, household budget, etc.) that lead to health impacts? What are the health impacts of each change?

• If an allowance is traded into a community, what are the benefits (e.g., AQ, traffic, noise, employment, household budget, etc.) that lead to health impacts? What are the health impacts of each change?

Cap & Trade HIA Questions
Offsets

• How many offsets are allowed? And therefore how much emissions will be reduced?

• What is the impact of not reducing co-pollutants?

• What are the types of offsets? e.g. urban forestry, forestry, livestock

• Where can offsets be used?

• For each type/location what are the health impacts of the offset? e.g urban forestry:
  • positive health impact may be PA, job
  • negative health impacts may be pesticide exposure, allergies
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<th>Cap &amp; Trade HIA Questions</th>
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<td><strong>Entity reductions</strong></td>
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- How much will emitters reduce emissions?
- What are the health impacts (long range) of reducing emissions as a result of reduced global warming?
- What are the options for reducing emissions by type of covered entity? *e.g., combined heat and power (CHP)*
- How will co-pollutants change?
- What are the health impacts of changes in co-pollutants?
- What are other changes that will result from emission reduction technologies? *e.g., traffic, noise, employment, household budget, land use, etc.?* What are the health impacts of those changes?