

Proposed Pathways for the Cap-and-Trade HIA

CAT Public Health Workgroup Meeting
Original presentation: December 17, 2009

***This presentation was modified January 2010 to reflect
corrections by the CAT Public Health Workgroup.***

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

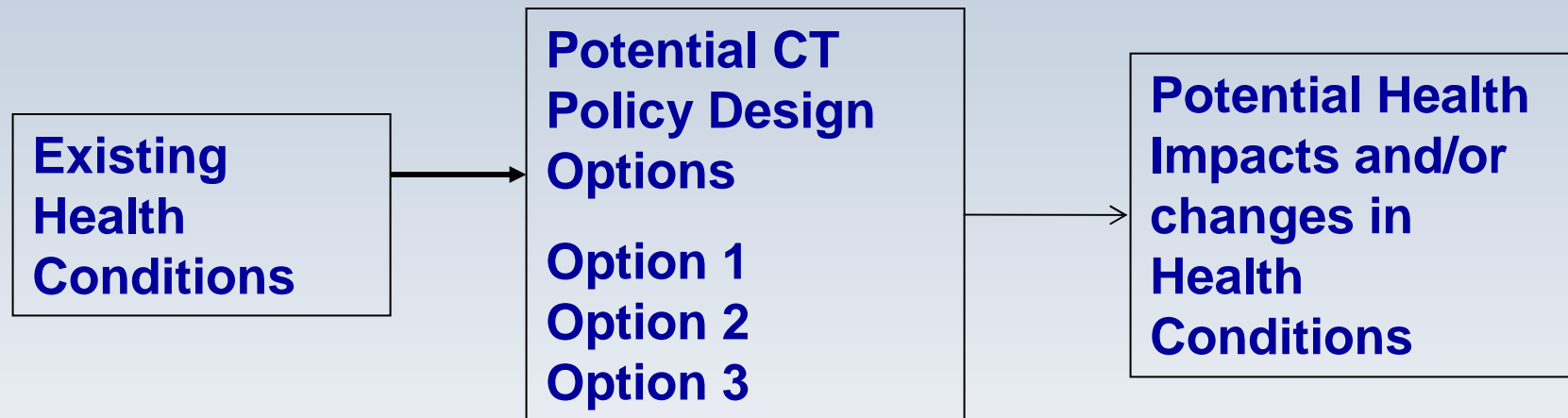
Today's Questions

- 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?

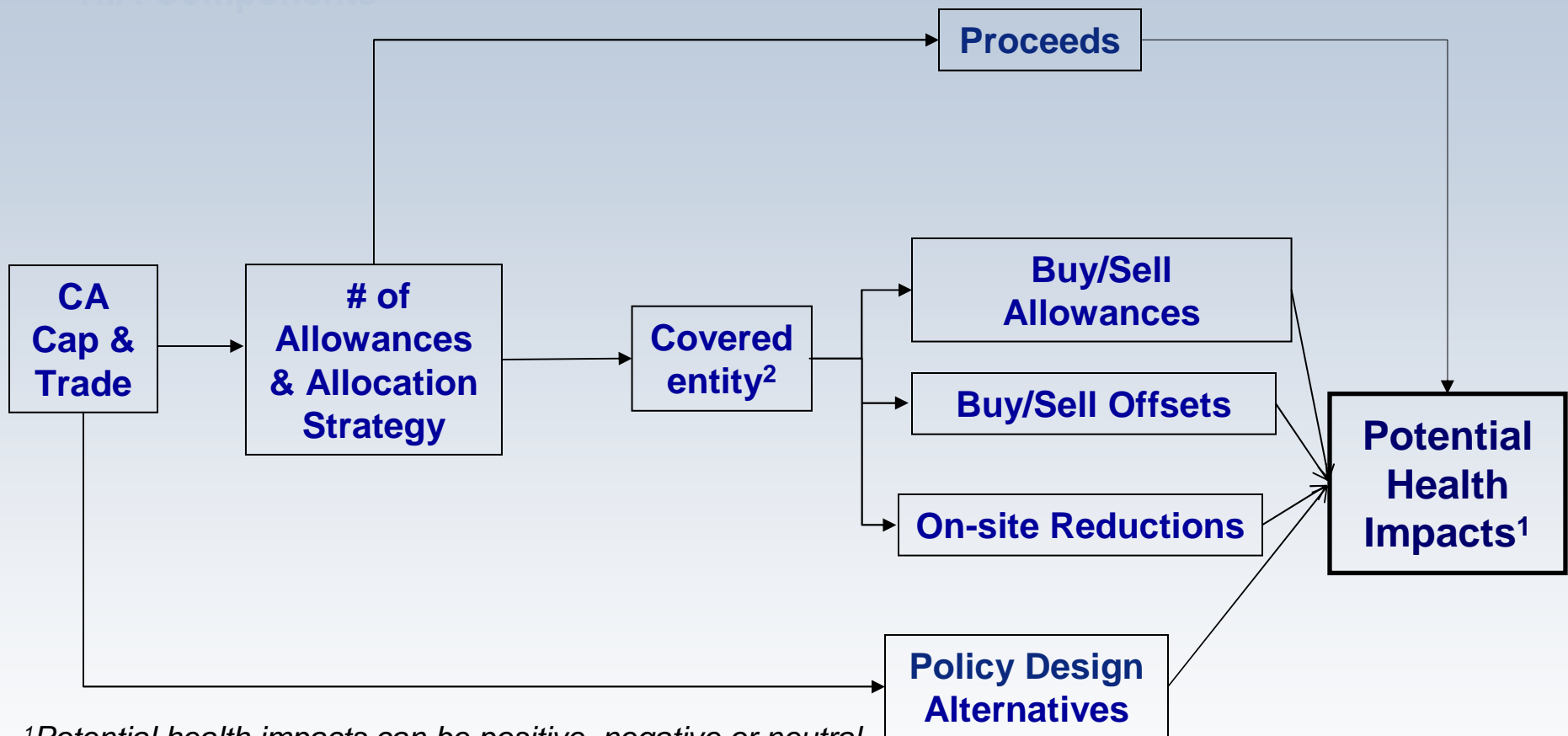
- Examples identified through literature review and expert consultation
- Examples of health impacts:
 - Air pollution (criteria air pollutants, toxics), land use and related health impacts, ecological impacts, traffic, employment, noise, economic impacts, heat, etc.
- Final non-air related impacts to include will be based on:
 - Impacts of highest public health significance

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

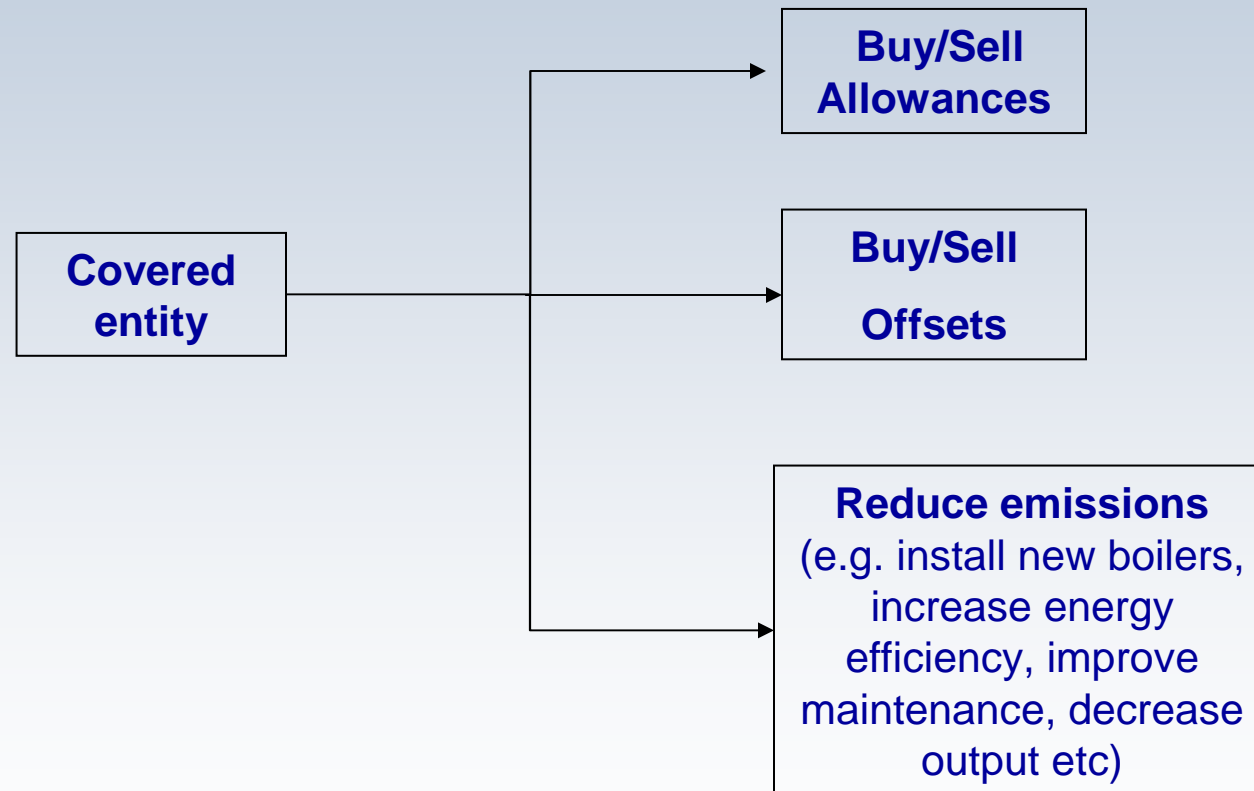


¹Potential health impacts can be positive, negative or neutral

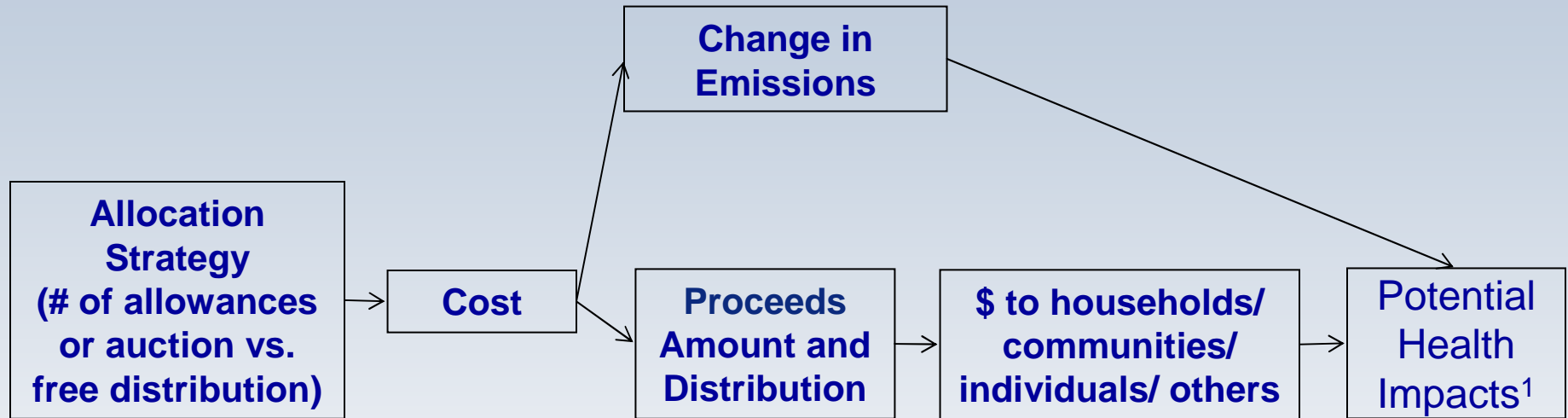
²Consistent with the proposed draft regulation (PDR), the covered entities are entities with one or more defined processes or operations like stationary combustion, cement manufacturing; cogeneration, etc.; electricity deliverers; transportation fuel delivers; natural gas deliverers; and deliverers of natural gas liquids (PDR (pg 25-26) at:

<http://www.arb.ca.gov/cc/capandtrade/meetings/121409/pdr.pdf>)

Choices Available to a Covered Entity

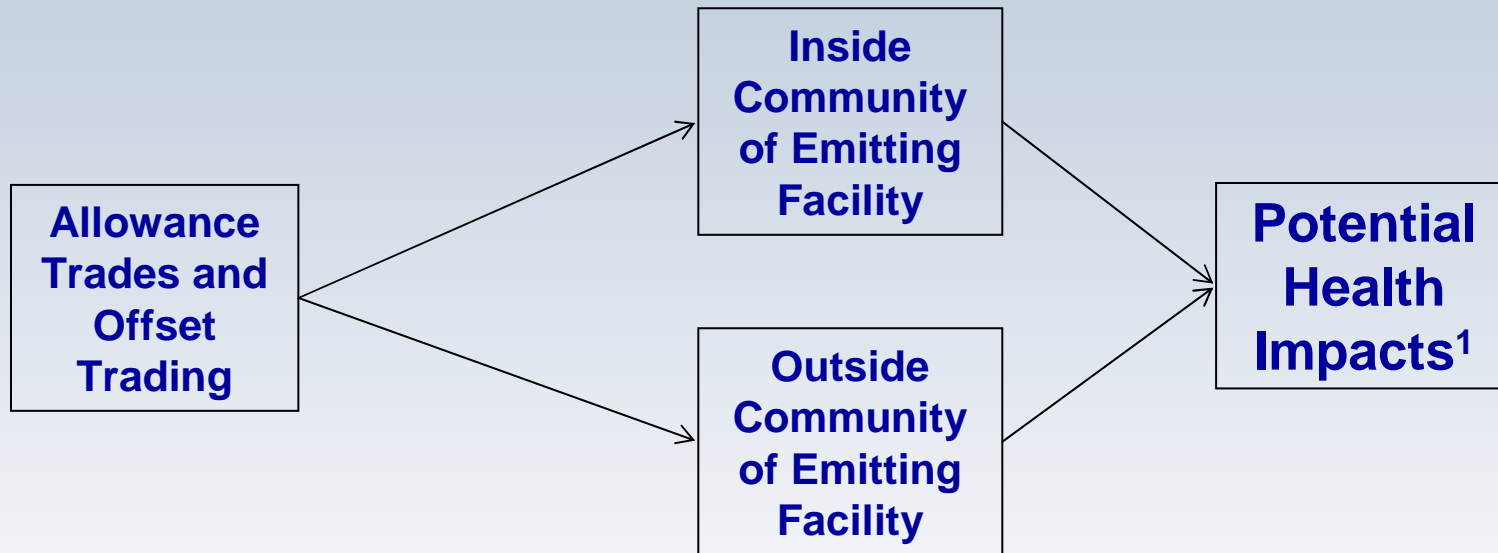


Allowance Allocation Strategy



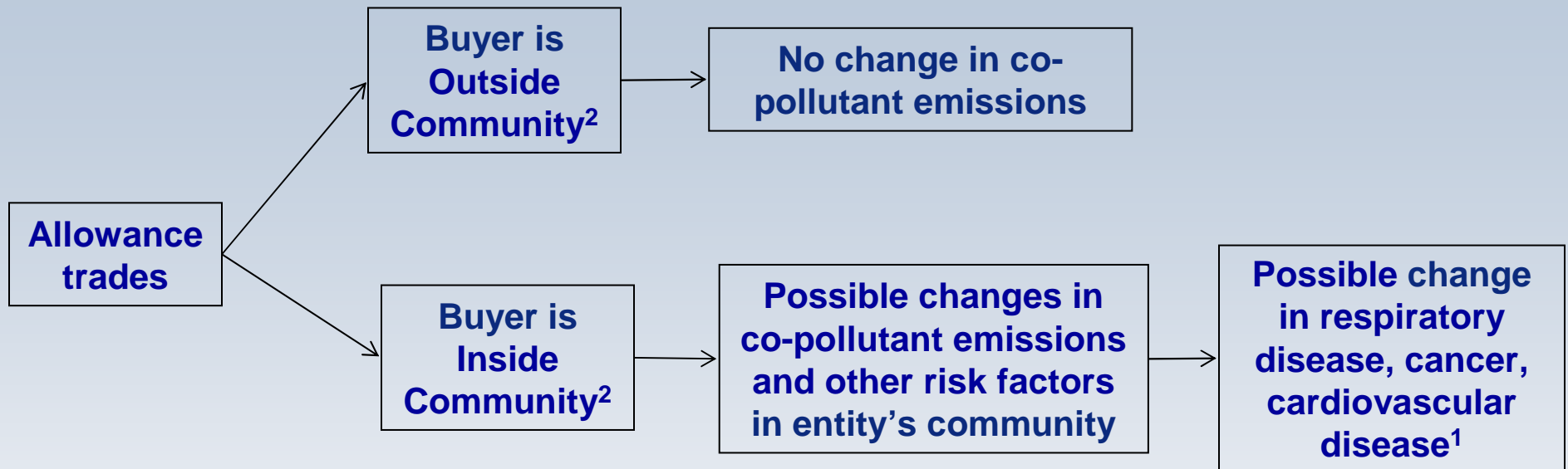
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Allowance & Offset Trading



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Example: Allowance Trading

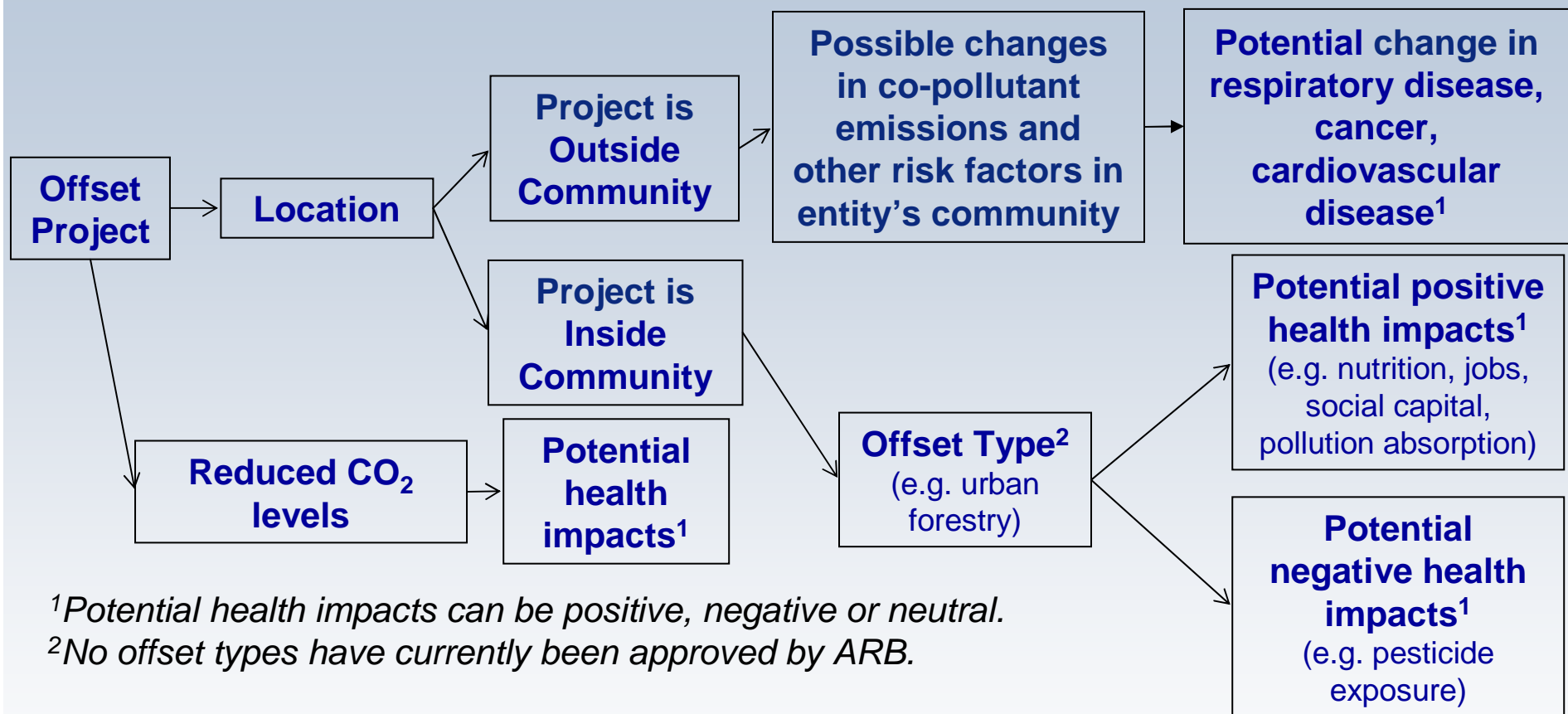


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²If the buyer and seller are in the same community, there will potentially be a net reduction of emissions in that community (e.g. emissions stay the same for buyer of allowance, but are reduced for seller of allowance).

- If they are not in the same community, the community of the buyer loses potential health benefits of reductions.
- In the next iteration of the slides, the potential relationships between buyers and sellers inside and outside of a community will be described in more detail.

Example: Offset Trading

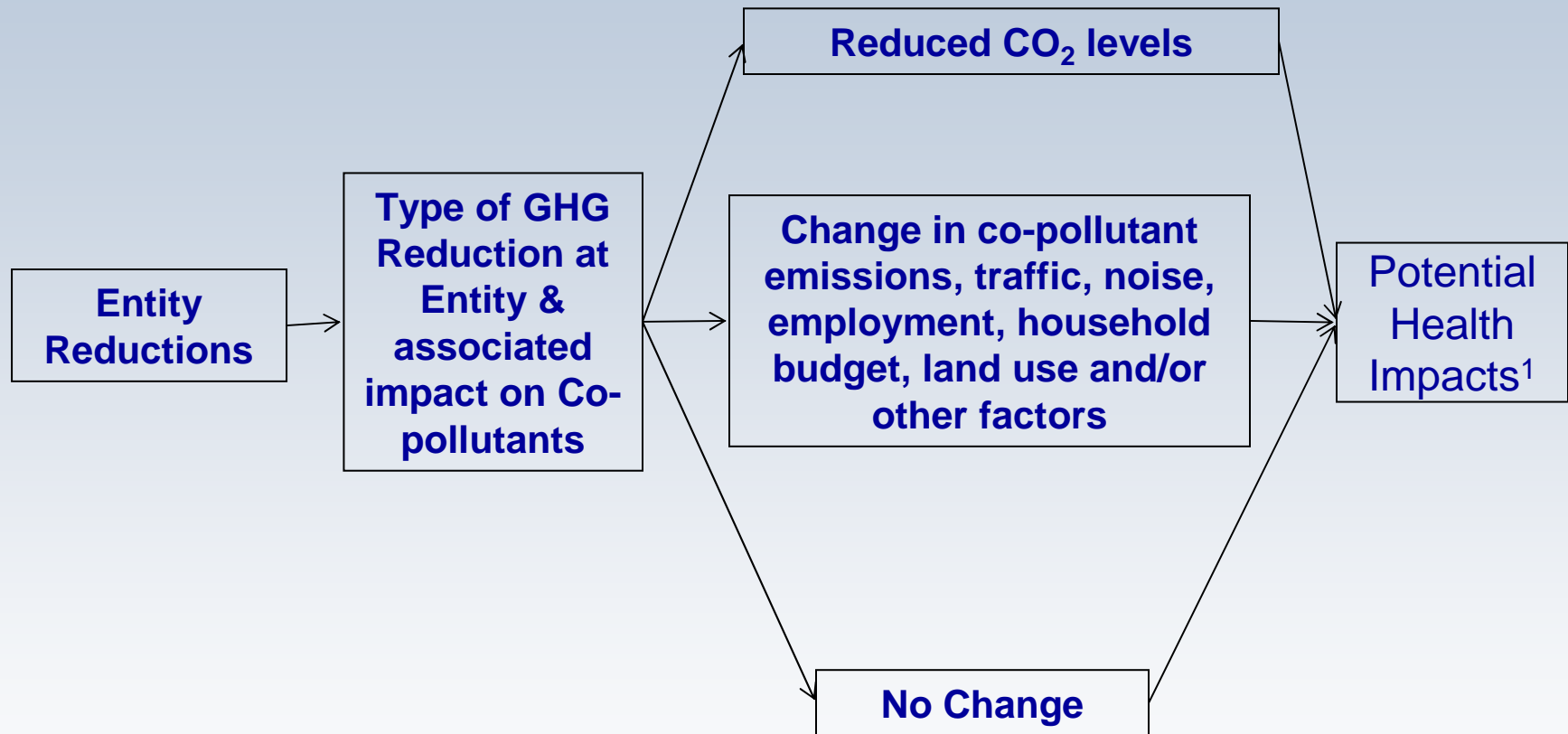


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²No offset types have currently been approved by ARB.

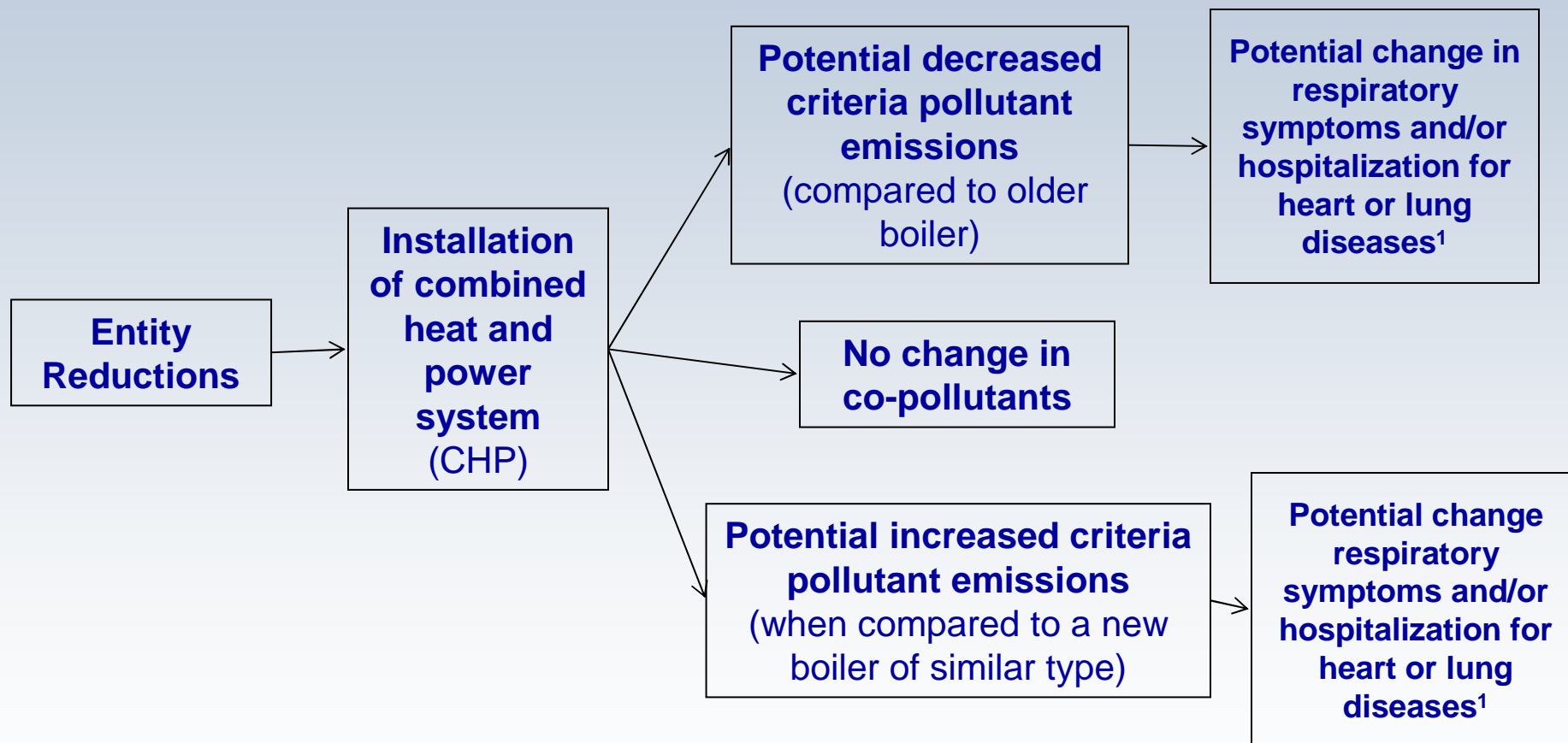
Note: The buyer and recipient of the offset may or may not be in the same community. If in the same community, the community of the buyer gets the health impacts of the offset and the impacts of potential reductions of emissions. If they are not in the same community, the community of the buyer loses potential health benefits of reductions and likely gains nothing from the offset. More details in next slide iteration.

Entity Reductions



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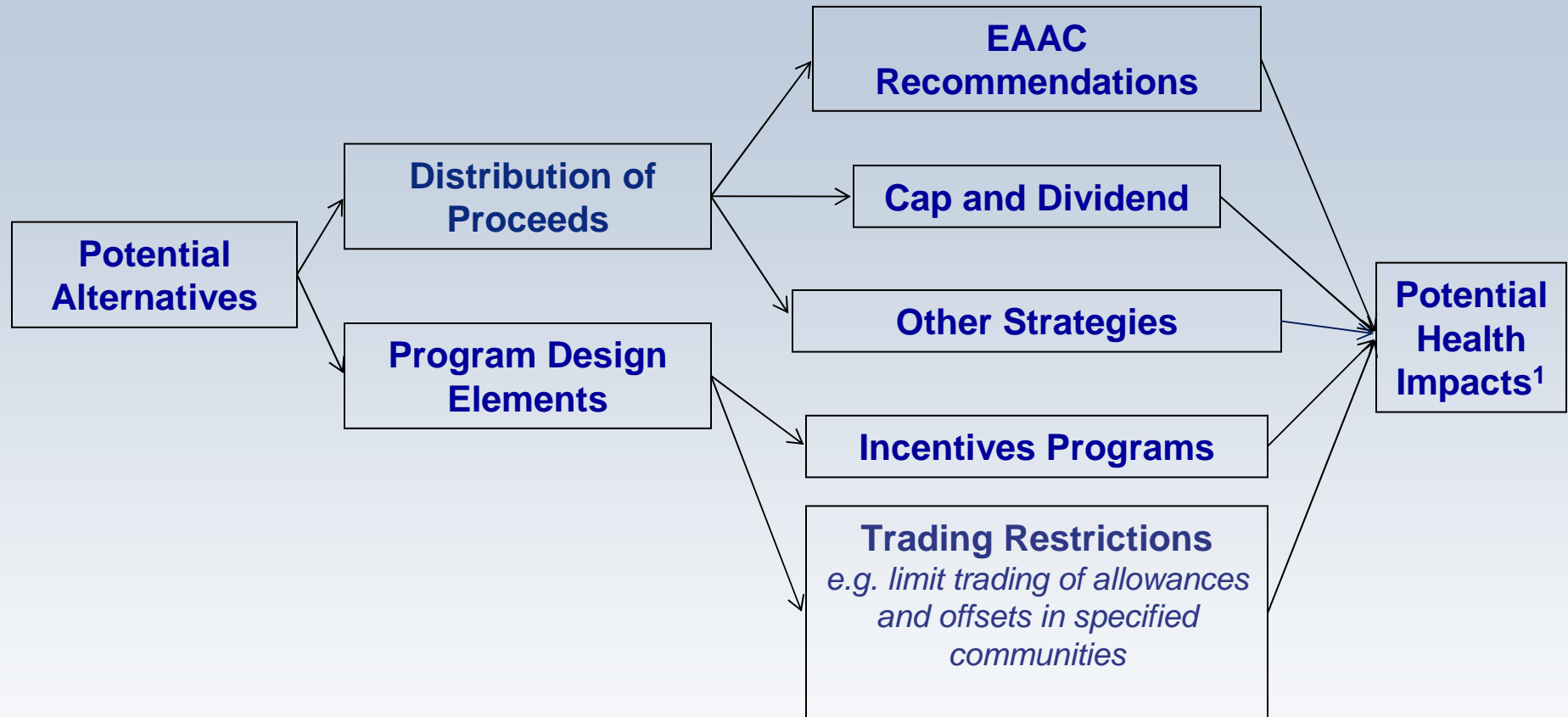
Example: Entity Reductions



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Alternatives

**not applicable to the C&T baseline scenario*



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Note: As part of the health impact assessment, allowance, offset, etc. pathways will be qualitatively analyzed assuming various potential alternatives as outlined above. Quantitative analysis will occur where possible.

Cap & Trade HIA Questions Proceeds

- How much proceeds will there be?
- How can the proceeds be used?
e.g. tax rebate, community development
- How will the proceeds be distributed? e.g., how much will go to impacted communities? Will proceeds go to all communities in CA?
- For each use of proceeds (with associated amounts and locations), what are the health impacts?
e.g. building a park may lead to physical activity
- 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 or 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 purchased from an entity in another community, what are the potential foregone health benefits?
(*e.g. air quality, traffic, noise, employment, household budget, etc.*)
 - What are the health impacts of each change?
- If an allowance is purchased from an entity within the community, what are the health benefits?
(*e.g. air quality, traffic, noise, employment, household budget, etc.*)
 - 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 physical activity, jobs
 - negative health impacts may be pesticide exposure, allergies

Entity reductions

- 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?