Prioritization of Recommended Infection Control and Prevention Practices in the U.S.

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GAO Report

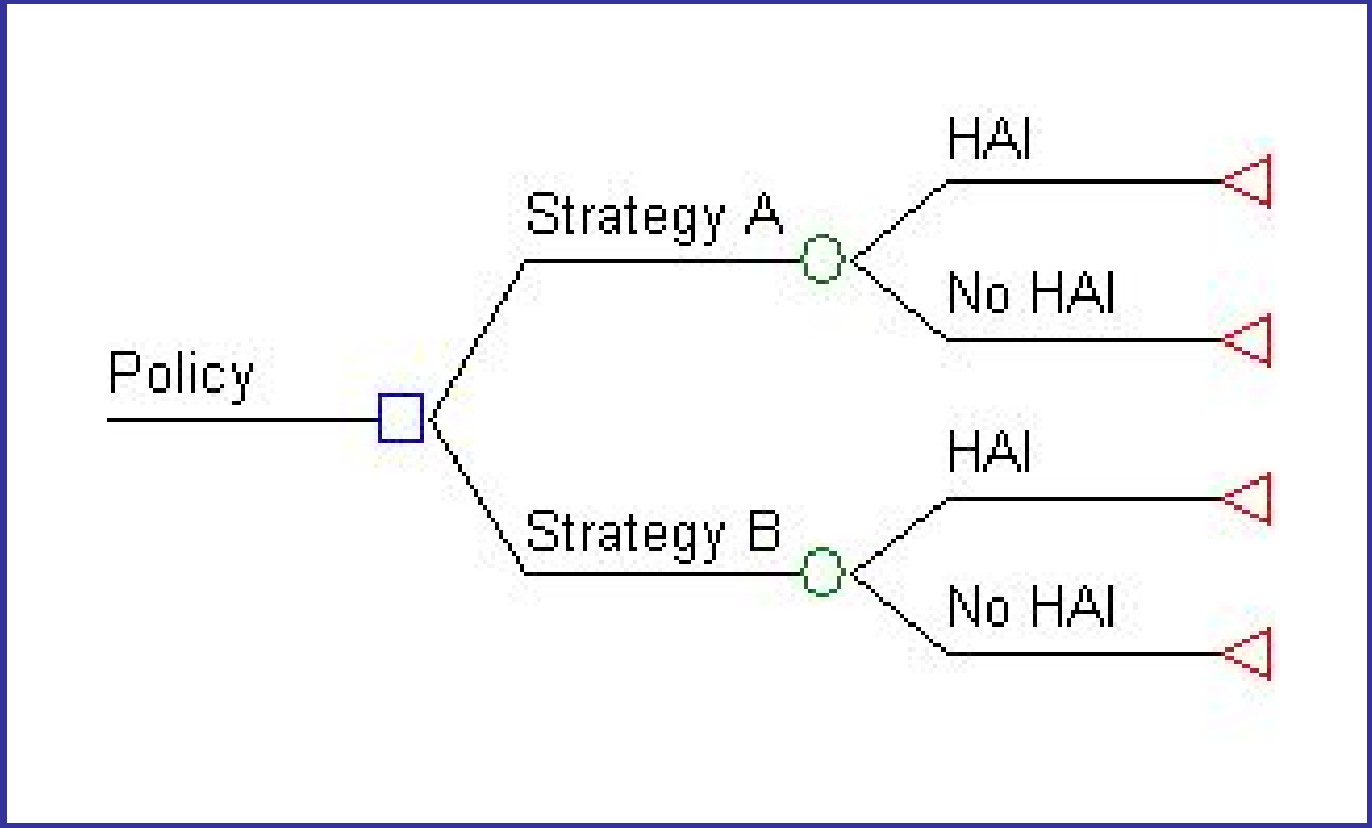
- CDC has 13 guidelines and 1,200 recommended practices for hospitals on infection control and prevention
- Guidelines focus on strength of evidence for each recommendation → Implicit prioritization
  - >500 practices are strongly recommended
- Further guidance on how these practices should be prioritized is not provided
- Lack of prioritization may hinder efforts to promote implementation

Goal

- To provide decision makers with a framework for prioritizing recommendations for infection control and prevention in the U.S.

Potential Approach

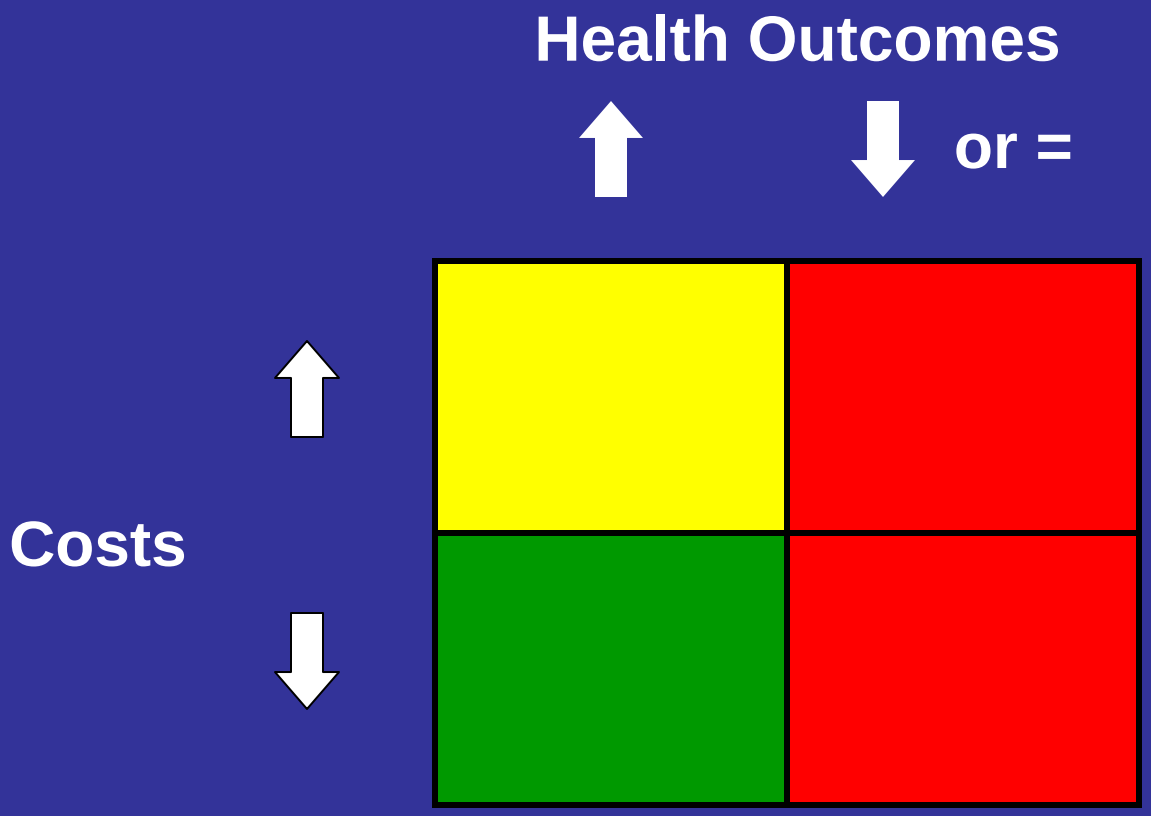
- Decision analysis framework



Potential Approach

- Cost-effectiveness analysis
  - Builds upon field of decision analysis
  - Incorporates probabilities, costs, & utilities
  - Outcomes measured
    - Cost per case prevented
    - Cost per quality-adjusted life year saved (QALY)

Cost-effectiveness Analysis



Benefits of CEA Framework

- Explicitly state assumptions
- Quantify outcomes, or health benefits, associated with each strategy
- Clarifies trade-offs made when one strategy is implemented vs. another
- Provides guidance on how limited resources could be invested to maximize health impact

Limits of CEA Framework

- Quality of the data used to inform model inputs will affect outcomes
- All QALYs are not equal, but a common metric is needed
- Equity/value judgments are an important part of the decision making process

Examples of Prioritization

- IOM Committees
  - 1985 report on “New Vaccine Development: Establishing Priorities in the US and Developing Countries”
  - 2000 report on “Vaccines for the 21st Century: A tool for decision making”
  - Current IOM committee on “Review of Priorities in the National Vaccine Plan”

Potential Epicenter Project

- Review recommendations, evidence for these recommendations, and assess feasibility of using a CEA framework
- Build core model to estimate net health benefits and costs of each recommended intervention

Potential Epicenter Project (2)

- Probabilities, costs, and utilities used in model will be based on:
  - Published literature
  - Empiric data when published estimates are unavailable (e.g. from Epicenters hospitals)
  - Expert panel opinion

Potential Epicenter Project (3)

- Outcomes include costs, health benefits, cost per case prevented, and cost per QALY saved
- Sensitivity analyses to understand how model results change as key assumptions varied over plausible ranges
  - Can identify potential areas where future research is needed