Section C: Identifying Which Intervention Costs Should Be Characterized

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What Do We Mean by Intervention Costs?

- Resources used in adopting the intervention
  - Implementation (capital)* and operational costs

* Depreciation of initial costs
Relevance of Intervention Costs Data

- Necessary to evaluate resources needed to adopt intervention
- Helps identify whether intervention is a reasonable investment or cost saving when compared to the costs of the injuries
Issues to Consider

- As with injury costs
  - Resources used (depreciation)
  - Perspective
  - Timing
  - Inflation
Which Costs and Data Sources?

- Which costs?
  - Initial and operational costs
- Data sources
  - Same as for injury costs
Which Costs and Data Sources?

- In general, do not include fixed costs or research and development costs if analysis is on the implementation of the program rather than on the development of the program.
Data Coding

- Monetary (and in constant year)
Intervention Costs Data Comparability

- Data source variability
- Case identification variability
- Coding system variability (year)
Two Important Concepts

- Marginal cost
  - The cost of producing one more unit of output
    - For example, one more helmet order

- Incremental cost
  - The cost associated with doing more of something—relates mostly to changes in the input
    - For example, one more state with a helmet law

Note: For a review of other cost-related terms, see box 4.3 in the cost analysis chapter in Drummond et. al. (1997).
Why Do We Care about the Intervention Cost?

- Comparing the cost of injury and the cost of intervention
- Very simply
  - Cost-benefit
    - The intervention has net savings (intervention cost minus the cost saving of injury-related costs < 0)
  - Cost-effective
    - The intervention yields benefit of some costs lower than other maximum costs that we are eager to pay
Why Do We Care about the Intervention Cost?

- Comparing the cost of injury and the cost of intervention
- Very simply
  - Cost minimization
    - Several equally effective interventions are evaluated to find out which one is cheaper to implement
Cost-Benefit Analysis of Bicycle Safety Legislation

- Cost-benefit analysis of legislation for bicycle safety helmets in Israel
  - **Cost**
    - Crash helmets for Israel’s 833,000 cyclists: $19.5 million
    - Health education over five years: $607,000
    - Total costs over five-year period: $20.1 million

Cost-Benefit Analysis of Bicycle Safety Legislation

- Cost-benefit analysis of legislation for bicycle safety helmets in Israel
  - **Benefits**
    - Reduction in health-service use: $60.7 million
    - Reduction in work absences: $7.5 million
    - Reduction in mortality: $8.9 million
    - Total benefits over a five-year period: $60.7 million

Benefit-Cost Ratio for Bicycle Safety Helmets in Israel

- 3:1 benefit-cost ratio of legislation for bicycle safety helmets in Israel

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