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JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

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

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

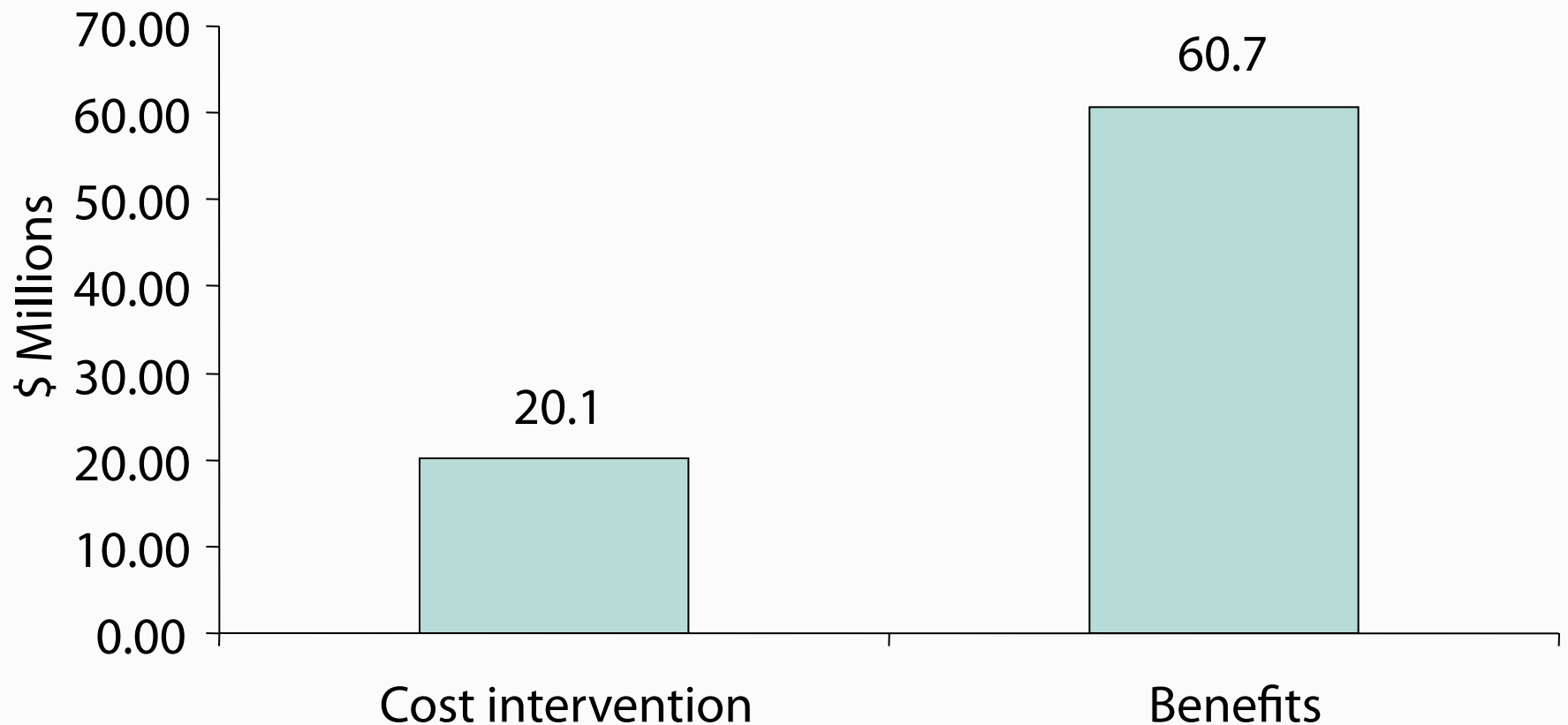
- Cost-benefit analysis of legislation for bicycle safety helmets in Israel
 - **Cost**
 - ▶ Crash helmets for Israel's 833,000 cyclists: \$19.5 million
 - ▶ Health education over five years: \$607,000
 - ▶ Total costs over five-year period: \$20.1 million

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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