

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

Advancing the Power of Economic Evidence to Inform Investments in Children, Youth, and Families:

This report is now available and can be downloaded as a free pdf at www.nas.edu/EconForKids
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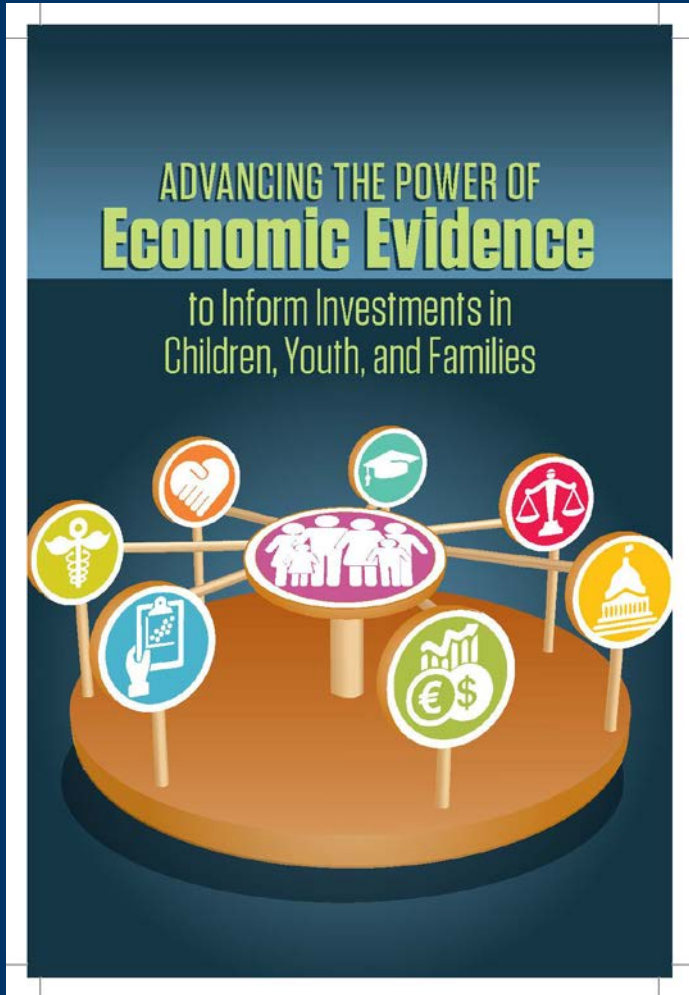
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Abbreviated Statement of Task



Study how to improve the use of economic evidence to inform investments

Focus on investments in children, youth, & families

- www.nas.edu/EconForKids

Key Terms

Intervention: programs, practices, or policies

Economic evidence: information derived from specific forms of economic evaluations

- Three most common types:
 - Cost-analysis
 - Cost-effectiveness analysis
 - Benefit-cost analysis
- Economic analyses are invaluable tools: both powerful & disinterested
- Also consider other tools or forms of evidence

2 Guiding Principles

For both producers and consumers of economic evidence:

Quality counts



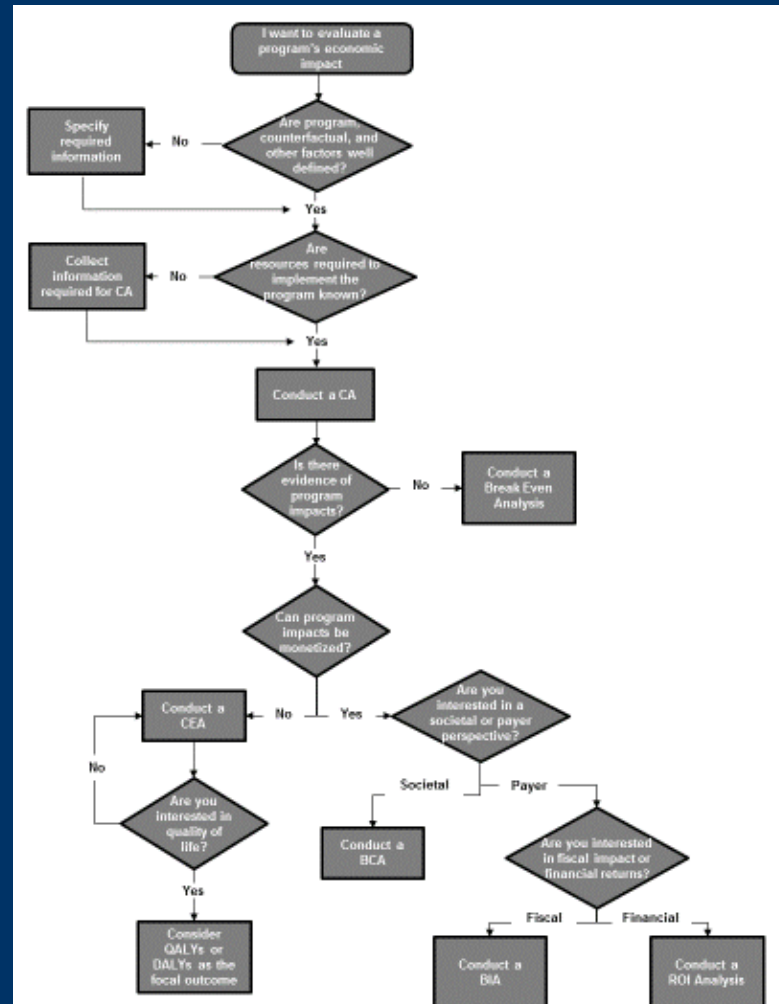
2 Guiding Principles

Context matters



Lasting improvements require process reforms

Report Provides a Paradigm for Selecting What Type of Economic Analysis to Conduct



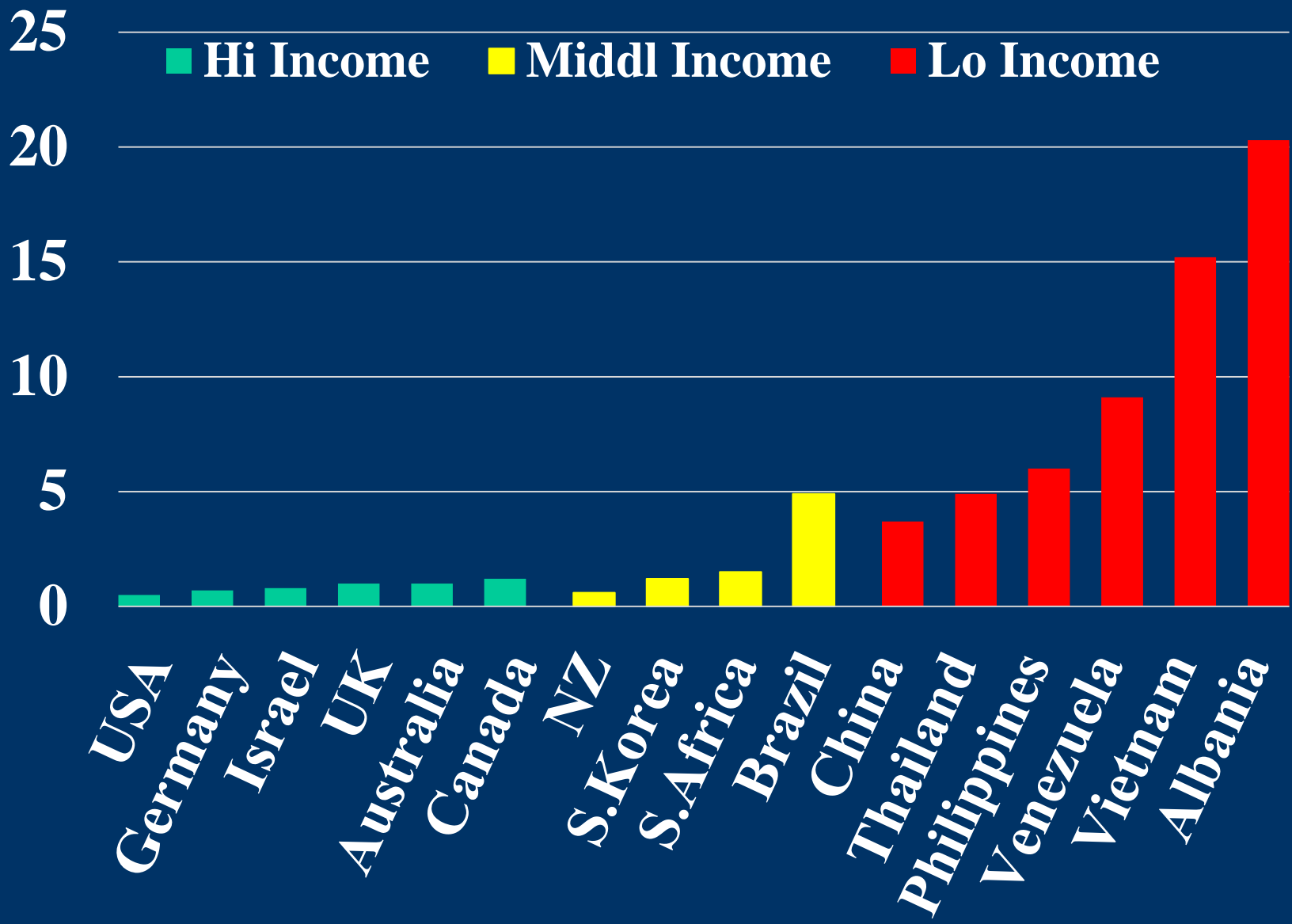
Simplest Form: Cost Analysis

- **A bookkeeper can track program costs**



- **Should track & report them**
- **Include the value of volunteer time & donated resources**
- **A well-conceived cost analysis can frame policy**

Hours of Factory Work to Buy a Bicycle Helmet



Source: Hendrie et al., Injury Prevention, 10:338-343, 2004

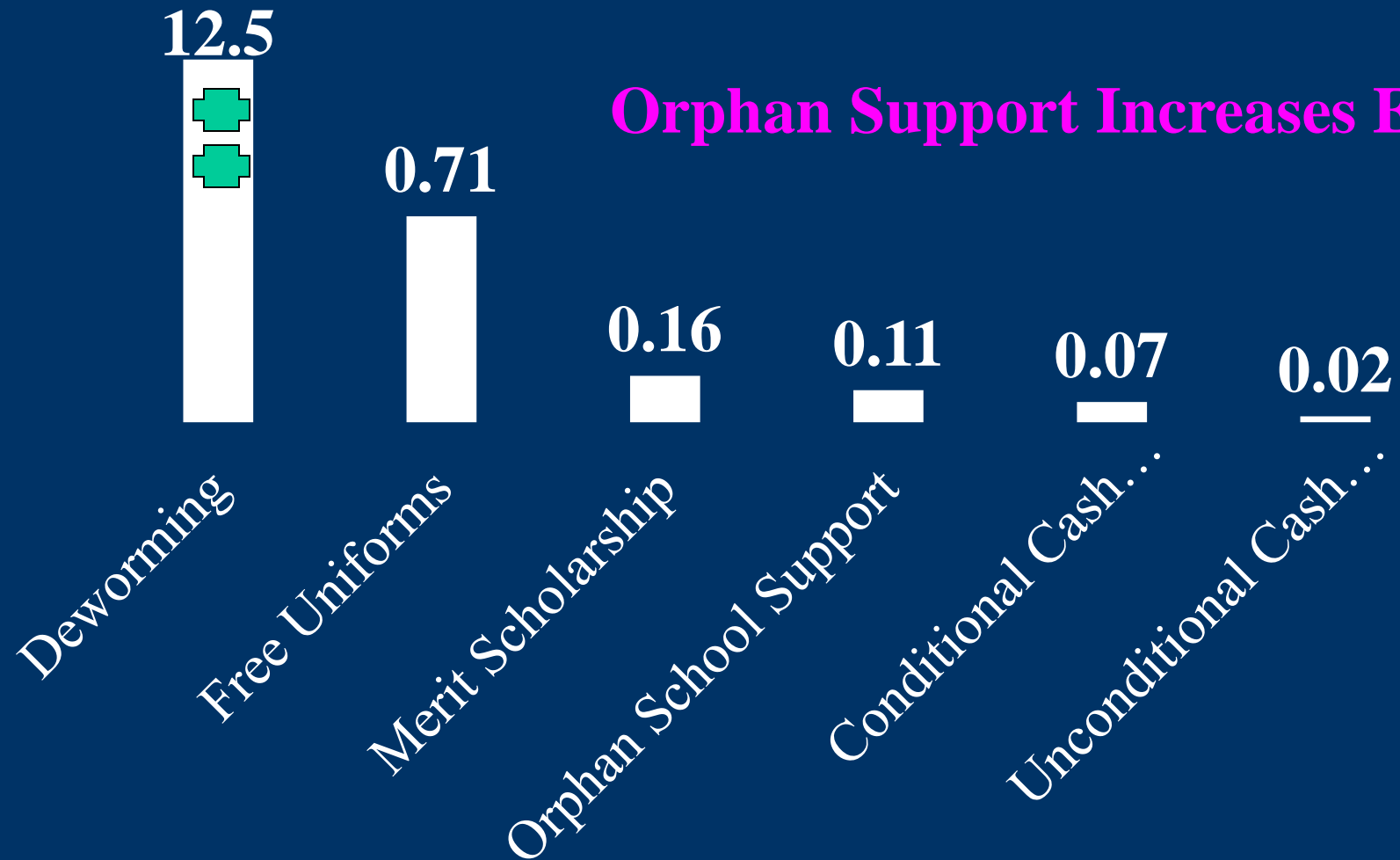
Other Economic Analyses Require Knowing the Burden of the Problem

- **Global Burden of Disease provides modeled mortality and disability by cause for 188 countries from 1990 to 2015**
- **Data on 33 UN sustainable development goals including drinking water, violence, nutrition**
- **Not an evaluation tool; time series models ignore intervention efforts**
- **<http://www.thelancet.com/gbd>**

For CEA or BCA, Need Reliable Data Estimating Effects on Final Outcomes

- **Changes in attitudes & beliefs are not credible evidence**
- **Randomized control trial**
- **Time series analysis with a comparison group**
- **CEA allows you to not put a monetary value on one outcome**

Years of Education/\$100 Invested: Kenya, Malawi, & Zimbabwe



Orphan Support Increases Equity

New Guidelines for CEA in Health

- **Sanders GD, Neumann PJ, Basu A, et al. Recommendations for conduct, methodological practices, and reporting of cost-effectiveness analyses: Second Panel on Cost-Effectiveness in Health and Medicine. *JAMA*. September 2016;316(10):1093-1103.**
- **Our National Academies report lays out broader guidelines for CEA, BCA, & other economic analyses of CYF programs**
- **The 2 efforts were not coordinated so there may be some slight conflicts**

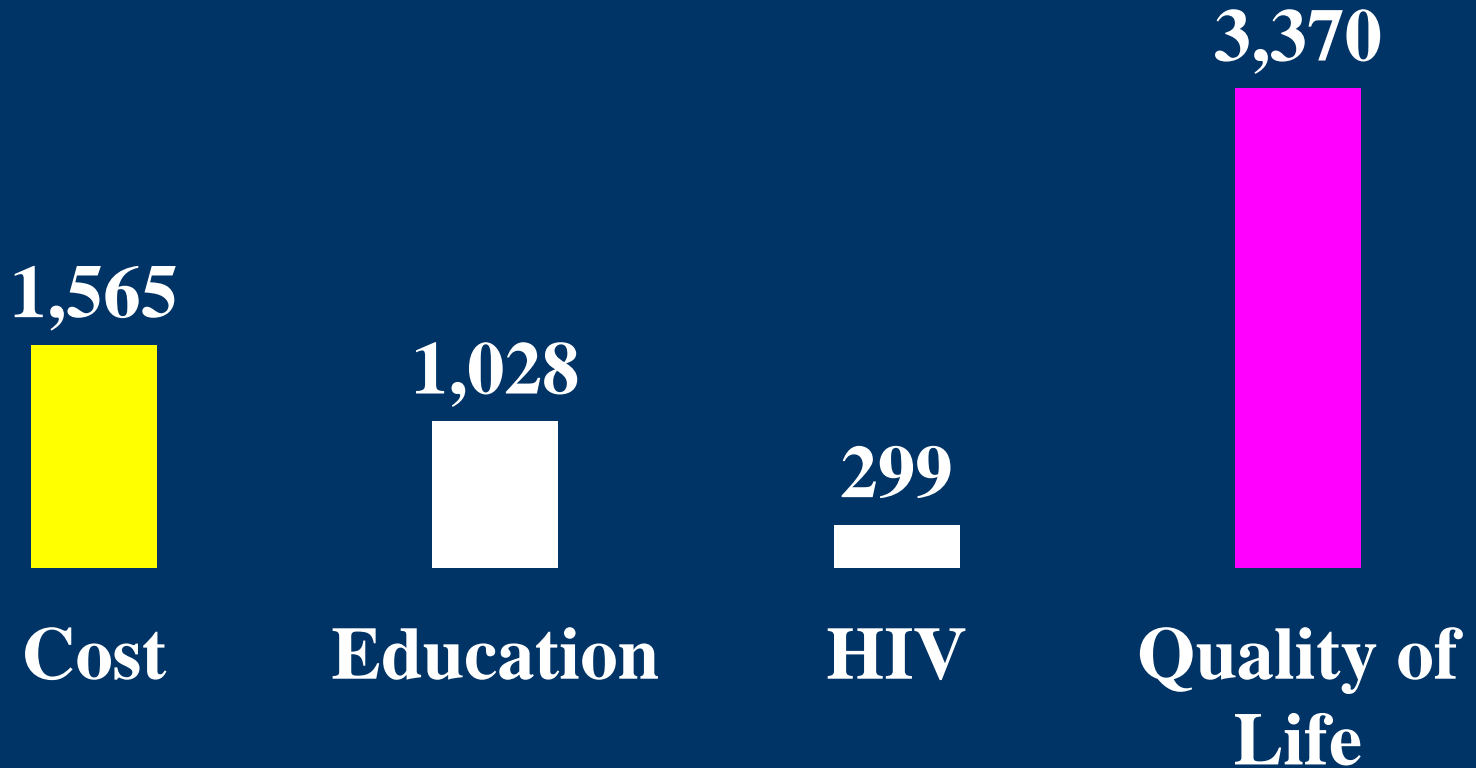
In health, CEA measure often =

- **Cost/DALY prevented or Cost/QALY saved**
- **First credible attempts at a broader quality of life measure for CYF: WHOQoL & WHOQoL-BREF**
- **More work needed on broader QoL survey measures**



BC Ratio Requires Valuing All Major Benefits in Monetary Terms

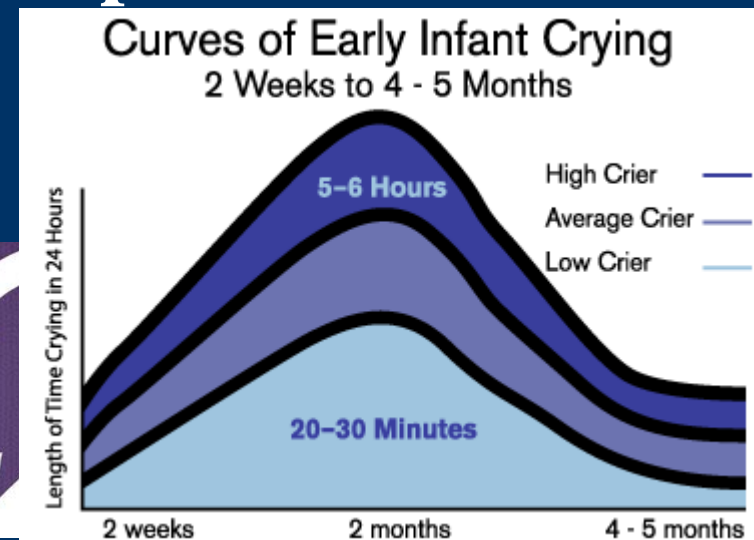
School Support for Orphan Girls in Zimbabwe



Source: Miller et al., Prevention Science, 14:503-512, 2013

If Benefits Are Unclear, Consider a Breakeven Analysis

- Requires knowing burden of the problem
- Existing hospital-based programs aimed at preventing brain injury from shaking babies in the U.S. cost \$5 per baby
- They would yield a net out-of-pocket cost saving for government if they were at least 1.8% effective



Choice of Discount Rate Can Greatly Affect the RoI

- Savings from investments in children can start 10-20 years later
- High discount rate for governments facing unstable futures: US looks @ 5 & 10 years

Present Value of \$1,000

Discount Rate	0%	3%	5%	10%
1 Year	\$1,000	\$1,000	\$1,000	\$1,000
10 Years	1,000	766	645	424
20 Years	1,000	570	396	164
30 Years	1,000	424	243	63



Reporting Requirements & Best Practices

- Carefully consider and disclose assumptions, decisions, & practices
- Clearly define the perspective(s)
- Report all costs
- Price or at least count intangibles like quality of life & fear
- Analyze uncertainty
- Consider who benefits & who pays

Context Matters

“The production of high-quality economic evidence is necessary – but not sufficient – to improve the usefulness and use of this type of evidence . . .

Equally important is attention before during and after economic evaluations are performed to the context in which decisions are made.”

The U.S. has a highly federated system of government – lots of decisions and decision-makers

1 federal government

50 states

3007 counties



Plus 562
Native
American
tribes

14
Territories

Over 20,000
Cities . . .

Our Review

- **Little evidence on use of evidence**
- **Most research outside of the U.S. and in health**
- **Used emerging literature and international literature, combined with expert testimony & committee members' knowledge**

Findings and Conclusions

- **Empirical evidence is just one of many factors affecting decision-making– values, politics, community voices, personal experience**
- **The less conclusive the evidence is, the more these factors will be weighed.**

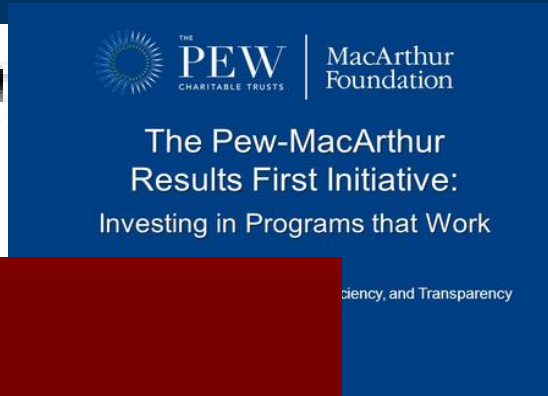
Impediments to Evidence Use

- **Poor alignment between decisions and evidence**
- **Limited capacity to access and interpret empirical and economic evidence**
- **Limited capacity to implement evidence-based practices**

Facilitators of Evidence Use

- **Leadership Support**
- **Accountability for Use**
- **Incentives for Performance Management**
- **Greater Collaboration Between Decision-Makers, Knowledge Brokers, Researchers**

Efforts to Translate Economic Evidence Into Policy and Practice



Recommendations

- **Researchers attend to relevance of the evidence for end-users**
- **Governments report on use of evidence in public programs**
- **Training institutions prepare decision-makers to understand and interpret evidence**
- **Funders pay for full implementation of evidence-based practices**

Recommendations

- **Multi-stakeholder partnerships**

Greater emphasis on stakeholder partnerships - researchers, decision-makers, intermediaries/knowledge brokers

Strengthen the *incentives* for the production and use of high-quality economic evidence