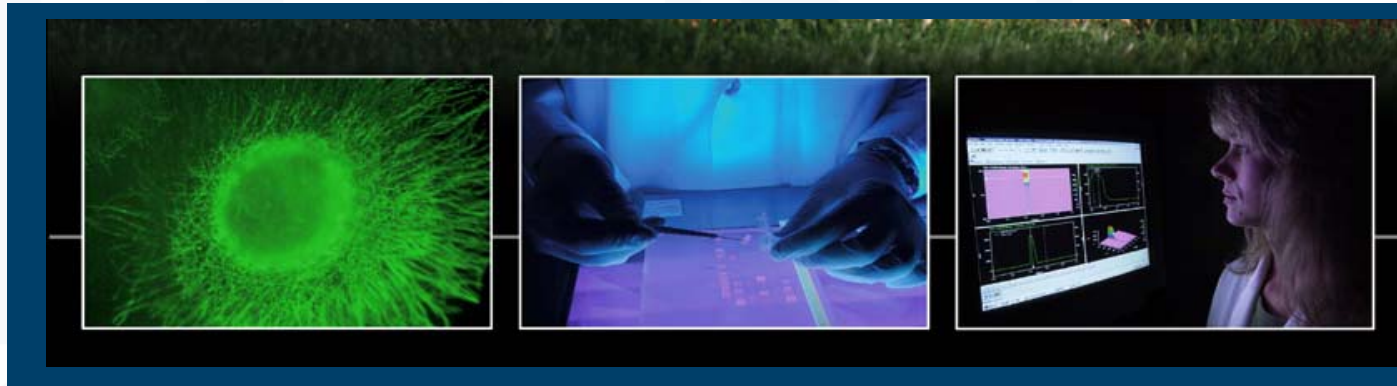


Introduction to Session 831

Particulate Matter Research, Science Policy, & Evaluation for Air Quality Decisions



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 - Environmental Program Evaluation
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- Electronic copy of session presentations
 - <http://www.wren-network.net/resources.htm>
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Introduction to Session 831

Key Questions

- Why is it important to forge strong links between research, science policy, decision-making, and evaluation for *federal* research programs?
 - What program design, implementation, and evaluation concepts are illustrated here?

Response to Key Questions

Session Presentations & Discussion

- **Particulate Matter Research, Science Policy, & Evaluation for Air Quality Decisions**
 - **Research, Science Policy, & Evaluation**
 - **Paradigm for Federal Research on Particulate Matter**
 - **Assessing Research Progress**
 - **Example Frameworks for Review of Research Progress**
 - **Example Application:**
 - The Use of Research and Science to Estimate Human Health and Environmental Benefits

Response to Key Questions

Illustrated by Session Presentations

Why is it important to forge strong links between research, science policy, decision-making, and evaluation for *federal* research programs?

Federal research programs, science policy, decision-making, and evaluation benefit from a *systematic* and *iterative* process

Demonstrating research progress and measuring public health impact depend on forging these critical links

Response to Questions

Illustrated by Session Presentations

What program planning, implementation, and evaluation concepts are illustrated and applied here?

1. Development & application of explicit scientific theory about research program contributions to decisions & outcomes
2. Development & application of theory about how program organization & implementation contribute to new knowledge, applications, decisions, and outcomes
3. Development & application of evaluation approaches (frameworks) for independent expert panels
 - Essential to help respond to federal legislation
 - Best practice for evaluating federal research programs

How are these program planning, implementation, and evaluation concepts described in recent publications?

1. Development & application of explicit scientific theory about program contributions to decisions & outcomes and
2. Development & application of theory about how program organization & implementation contribute to new knowledge, applications, decisions, and outcomes

Examples of discussion in recent publications:

- A Multiyear Federal Research Plan for Particulate Matter Within the Context of the NRC's Committee on Research Priorities for Airborne Particulate Matter's Report IV. Air Quality Subcommittee of the Committee on the Environment and Natural Resources, (NRC, 2006).
- Chen, H.-T. Practical Program Evaluation: Assessing and Improving Planning, Implementation, and Effectiveness. Sage: Thousand Oaks, CA. 2005. pages 256-257, 240.
- Stufflebeam, D.L. "Evaluation Models," New Directions for Evaluation Number 89, Spring 2001, Jossey-Bass, pages 37-39.

How are these program planning, implementation, and evaluation concepts described in recent publications?

3. Development & application of evaluation approaches (frameworks) for independent expert panels

- Examples of discussion in recent publications:
- Committee on Research Priorities for Airborne Particulate Matter, Research Priorities for Airborne Particulate Matter IV: Continuing Research Progress, pages 60 – 62. National Research Council of the National Academies. The National Academy Press, 2004.
- McLaughlin, J., & Jordan, G., “Chapter 1: Logic Models,” in Handbook of Practical Program Evaluation, 2nd Edition, Wholey, J., Hatry, H., and Newcomer, K., Eds., Jossey-Bass 2004.
- “Results Management and Accountability Framework,” Treasury Board of Canada, April 1, 2001.
- Teather, G., & Montague, S., “Performance Measurement, Management, and Reporting for S&T Organizations—An Overview,” *The Journal of Technology Transfer*, 1997. Springer.
- Claude Bennett (1979) in *Utilization-Focused Evaluation: The New Century Text*, Patton, M.Q. Thousand Oaks, California, 1997. p 235.