OVERVIEW

- Challenges to Success in Implementation and Dissemination
- Basics of RE-AIM and Key Issues Addressed by RE-AIM Model
- Current and Future Applications of RE-AIM
- Questions and Answers
BARRIERS TO IMPLEMENTATION AND DISSEMINATION

Characteristics of the Intervention: Context Adaptable?

- High cost
- Intensive time demands
- High level of staff expertise required
- Difficult to learn or understand
- Not packaged or “manualized”
- Not developed considering user needs
- Not designed to be self-sustaining
- Highly specific to particular setting
- Not modularized or customizable
BARRIERS TO IMPLEMENTATION AND DISSEMINATION (cont.)

Characteristics of Potential Adopting “Settings”:

Context Issues

- Competing demands occur
- Program imposed from outside
- Finance or organizations are unstable
- Clients and setting have specific needs
- Resources are limited
- Time is limited
- Organizational support is limited
- Prevailing practices that work against innovation
- Perverse incentives or regulations that oppose change
BARRIERS TO IMPLEMENTATION AND DISSEMINATION (cont.)

Characteristics of Research Design Used: Context Informative?

Not relevant or representative:
- Sample of patients
- Sample of settings
- Sample of clinicians
- Failure to evaluate cost
- Failure to assess implementation
- Failure to evaluate maintenance
- Failure to evaluate sustainability

Because of barriers, the program reach or participation is low.

- Intervention is not flexible
- Intervention is not appropriate for the target population
- Staffing pattern does not match intervention requirements
- Inconsistent organization and intervention philosophies
- Inability to implement intervention adequately

Simplified Systems Model for Translational Research

Program or Policy

- As Tested
- Critical Elements

Broader Health Policy and Cultural Context

Research Design

Appropriate For Question

Fit

Delivery Site(s)

Organization
- Clinic
- Program Delivery Staff

Partnership

PURPOSES OF RE-AIM

- To broaden the criteria used to evaluate programs to include context and external validity
- To evaluate issues relevant to program adoption, implementation, and sustainability
- To help close the gap between research studies and practice by
  - Informing design of interventions
  - Providing guides for adoptees
  - Suggesting standard reporting criteria
RE-AIM TO HELP PLAN, EVALUATE, AND REPORT STUDIES

- **R** Increase **Reach**
- **E** Increase **Effectiveness**
- **A** Increase **Adoption**
- **I** Increase **Implementation**
- **M** Increase **Maintenance**

**RE-AIM ELEMENTS: REACH**

**Definition:** The number, percent of target audience, and representativeness of those who participate.

**Example:** 65% of chronic illness patients invited to group medical visit attended initial session; those declining more likely to be Latino.

**Key Issues:** Does program reach those at highest risk? Are different promotional approaches or visit options required?
RE-AIM ELEMENTS: EFFECTIVENESS

**Definition:** Change in temporally appropriate outcomes, and impact on quality of life and any adverse outcomes.

**Example:** Mailed reminder/telephone outreach program increased colon cancer and mammography screening rates by 20%; with no adverse effects on quality of life or cardiovascular screening rate.

**Key Issues:** Logic model helps to clarify anticipated effects; quality of life provides common metric across conditions and interventions; anticipate unintended consequences.
**RE-AIM ELEMENTS: ADOPTION**

**Definition:** Number, percent and representativeness of settings and clinicians who participate.

**Example:** Six months after CME introduction, 52% of primary care physicians have used panel management tool—but only 30% of specialty care providers.

**Key Issues:** Need to focus on “denominator” and barriers among non-users. Do initial adoptees include peer opinion leaders?
RE-AIM ELEMENTS: IMPLEMENTATION

**Definition:** Extent to which a program or policy is delivered consistently, and the time and costs of the program.

**Example:** Patients being asked about their smoking status 65% of the time; takes an average 30 seconds of time, but not all reception staff asking consistently.

**Key Issues:** Consistency across staff, program components, and time. Balance between fidelity and local customization.
RE-AIM ELEMENTS: MAINTENANCE

Definition:

Individual/patient/citizen: Long-term effects and attrition.

Setting/clinician: Extent of discontinuation, modification, or sustainability of program.

Example: At one-year follow-up, was 58% attrition from Internet weight loss program; those present maintained weight loss. Only 40% of clinicians initially referring continued to do so.

Key Issues: Does attrition bias results; qualitative approaches to understanding program adaptation.
Building Programs and Policies with a Large Public Health Impact

Efficacy

Effectiveness

Reach

Implementation

Maintenance
ADOPTION FOR PUBLIC HEALTH PROGRAMS

- RE-AIM used by CDC to evaluate practicality and generalizability of evidence-based obesity interventions.

- RE-AIM used by national WISEWOMAN program for low-income women for qualitative and quantitative evaluation.+

- RE-AIM used by Robert Wood Johnson Foundation to help plan and evaluate 10 primary care, practice-based research network projects.*

*www.prescriptionforhealth.org
+ www.cdc.gov/wisewoman
NEW RE-AIM SUMMARY METRICS THAT ADDRESS:

- Health disparities – e.g., who participates and who benefits
- Costs and cost-effectiveness
- Effects of different interventionists
- Combining different factors to produce composite outcomes

Glasgow et al. Using RE-AIM Metrics to Evaluate Diabetes... *AJPM* 2006;30(1):67-73
Glasgow et al. *Health Education Research* 2006;21(3):688-694
RECOMMENDED PURPOSE OF TRANSLATION/EFFECTIVENESS RESEARCH

To determine the characteristics of interventions that can:

- **Reach** large numbers of people, especially those who can most benefit
- Be widely **adopted** by different settings
- Be consistently **implemented** by staff members with moderate levels of training and expertise
- Produce **replicable** and **long-lasting** effects (and minimal negative impacts) at reasonable cost
Questions, Counterpoint, Discussion