

THE RE-AIM MODEL FOR PLANNING, EVALUATION AND REPORTING ON IMPLEMENTATION AND DISSEMINATION RESEARCH

**Russell E. Glasgow, Ph.D.
Kaiser Permanente Colorado
Center for Health Dissemination and
Implementation Research
Institute for Health Research
September 10, 2007**

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

BARRIERS TO IMPLEMENTATION AND DISSEMINATION (cont.)

Interactions among the Three Other Barrier “Types”; “Fit”

Because of barriers, the program reach or participation is low

Intervention is not flexible

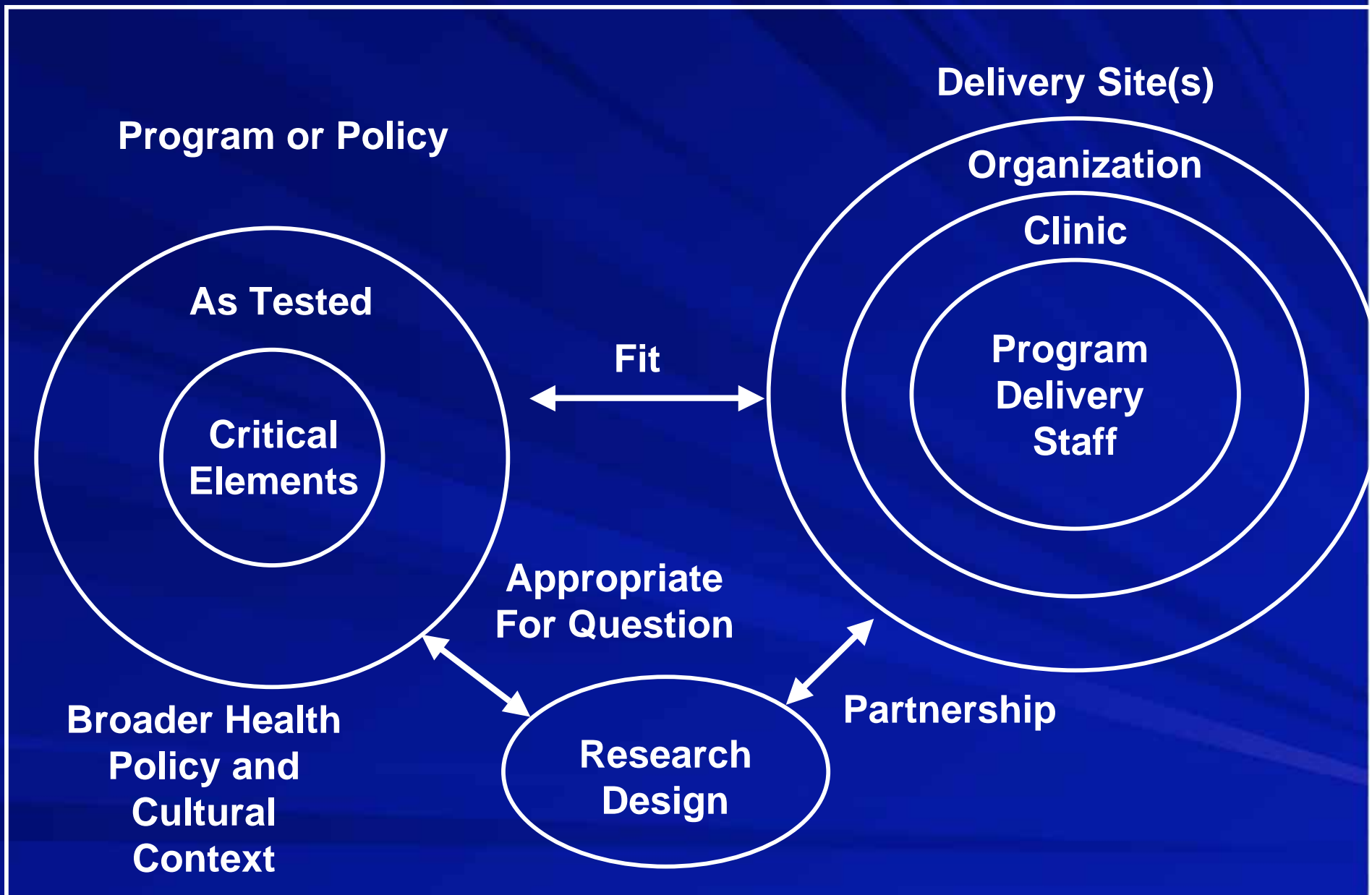
Intervention is not appropriate for the target population

Staffing pattern does not match intervention requirements

Inconsistent organization and intervention philosophies

Inability to implement intervention adequately

Simplified Systems Model for Translational Research



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	<u>R</u> each
E		Increase	<u>E</u> ffectiveness
A		Increase	<u>A</u> doption
I		Increase	<u>I</u> mplementation
M		Increase	<u>M</u> aintenance

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:

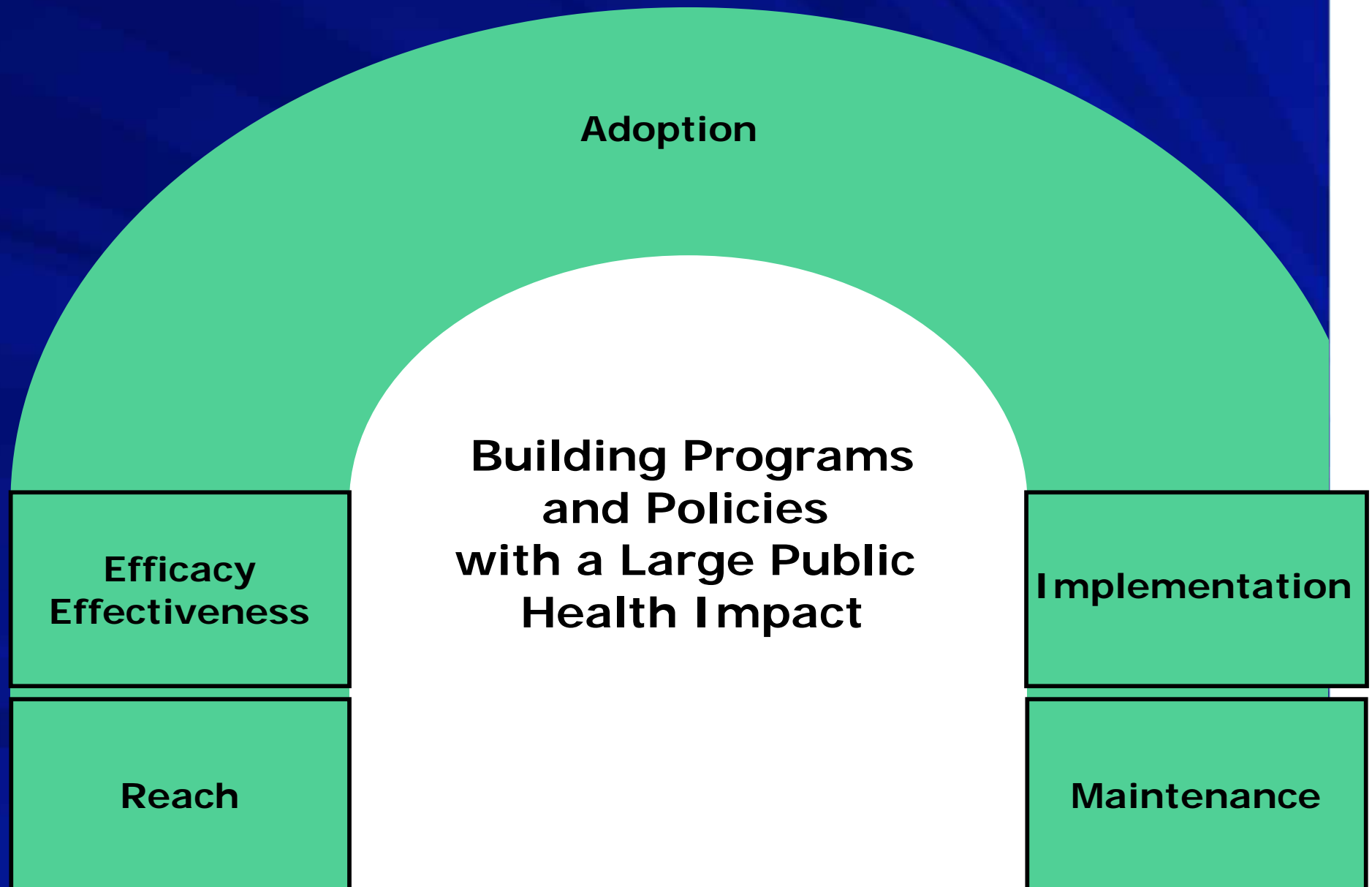
Individual/patient/citizen: Long-term effects and attrition.

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.

RE-AIM BUILDING BLOCKS THAT TOGETHER PRODUCE PUBLIC HEALTH IMPACT



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

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

