THE RE-AIM PLANNING AND EVALUATION FRAMEWORK AS ADAPTED BY KAI SER PERMANENTE COLORADO: APPLICATIONS FOR “TRI P”

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OVERVIEW

1. Introduction to RE-AIM
   - Russell E. Glasgow, Ph.D.

2. Using the RE-AIM Framework to:
   - A) Determine the Impact of a Community Physical Activity Program
     - Paul Estabrooks, Ph.D.
   - B) Assess a Medication Safety Intervention for Generalizability
     - David J. Magid, M.D., M.P.H.
   - C) Evaluate A Practical Clinical Trial to Improve Diabetes Care
     - Russell E. Glasgow, Ph.D.

3. General Crosscutting Discussion
   - All
A PLANNING AND EVALUATION MODEL TO “RE-AIM” PLANS AND STRATEGIES

- To broaden the criteria used to evaluate health promotion programs to include external validity
- To evaluate issues relevant to program adoption, implementation, and maintenance
- To help close the gap between research studies and practice by:
  - Informing design of interventions
  - Providing guides for decision makers
### RE-AIM Dimensions and Definitions

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<th>Dimension</th>
<th>Definition</th>
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<td><strong>REACH</strong></td>
<td>1. Participation rate among eligible individuals</td>
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<td>2. Representativeness of participants</td>
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<td><strong>EFFICACY / EFFECTIVENESS</strong></td>
<td>1. Effects on primary outcome of interest</td>
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<td>2. Impact on quality of life and negative outcomes</td>
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[www.re-aim.org](http://www.re-aim.org)
### RE-AIM Dimensions and Definitions (cont.)

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| **ADOPTION** | 1. Participation rate among possible settings  
2. Representativeness of settings participating |
| **IMPLEMENTATION** | 1. Extent to which intervention delivered as intended  
2. Time and costs of intervention |
| **MAINTENANCE** | 1. (Individual) Long-term effects of intervention (≥ 6 months)  
2. (Individual) Impact of attrition on outcomes  
3. (Setting) Extent of continuation or modification of treatment |

[www.re-aim.org](http://www.re-aim.org)
Determining the Public Health Impact of a Community Implemented Physical Activity Program

Paul Estabrooks
Kansas State University & Kaiser Permanente Colorado

Mike Bradshaw
Kansas State University Research & Extension
Team-building interventions that target group processes have been efficacious for physical activity promotion.

Developing Distinctiveness ↔ Interaction & Communication

Group Goal Setting & Norms ↔ Group Cohesion

Carron & Spink, 1993; 1994; Estabrooks & Carron, 1999; Brawley et al., 2000; Rejeski et al., 2002; Estabrooks et al; 2003
Real World

Efficacious Intervention

Eakin et al., 2002; Estabrooks et al., 2003; Glasgow et al., 2002
A system-sensitive approach to developing self-sustaining physical activity interventions
DELIVERY SYSTEM

- Kansas State University Research & Extension (Cooperative Extension)
  - Network of county agents that offers community programming
  - Located in every state
  - Every county has an extension agent representative
  - Different agents for different content areas
**INTERVENTION DEVELOPMENT**

- Recruitment: Mass media, newspaper advertisements, county task forces
- Key Intervention Components
  - Self-selected teams of 6 sign up to collectively walk across Kansas in 8 weeks
  - Promote distinctiveness
  - Set group goal of 423 miles
  - Weekly group feedback on progress
  - Weekly informational newsletters mailed home
  - Pay for use program ($10.00 per person)
How do you determine the Public Health Impact of Walk Kansas?

- Reach
- Effectiveness
- Adoption
- Implementation
- Maintenance
  - Individual
  - Organizational
6000 individuals participated (78% completed introductory surveys)

2% of county population

Representativeness
- Distribution across ethnicity and age was virtually identical for program participants when compared to county census data (95% Caucasian; $M_{age} = 47 \pm 15$)
Based on BRFSS Physical Activity Questions and Comparison to 2001 data
15 county agents agreed to complete both a pre-post assessment of their participants
- $n=1074$ (86% response rate to both assessments)
- $M_{age}=47\pm15$
- 85% Female
- 95% Caucasian

Effectiveness was tested based upon participants baseline categorization as: inactive ($n=88$), insufficiently active ($n=326$), or active ($n=660$)

BRFSS PA questions used as primary outcome
EFFECTIVENESS

Weekly minutes of moderate physical activity
EFFECTIVENESS

Weekly minutes of vigorous physical activity
ADOPTION

- 48 counties adopted the program for delivery
- 45.7% adoption rate
- Representativeness
  - County population was a significant predictor of adoption
  - Participating counties (N=10,000; Median: 5,600)
  - All Counties in Kansas (N=26,000; Median: 7,500)
ADOPTION

Prevalence of Program Adoption By Agent Physical Activity Level

Percent

Active  Insufficient  Inactive
IMPLEMENTATION

- Determine number who used a community task force

- Fidelity to Protocol for
  - Subcommittees
  - Meeting Schedules
  - Strategy completion

- Compared with & without task force on specific strategies, reach, and effectiveness
IMPLEMENTATION

Average number of participants by counties with and without a task force

1. No difference on the self-reported strategies
2. No difference on program effectiveness
Participants who were active (n=75), insufficiently active (n=75), or inactive (n=68) at baseline were randomly selected to participate in a 6-month follow-up assessment.

Participants again completed the CDC BRFSS physical activity questions.

Response rate to the follow-up was over 90% and did not differ by baseline physical activity category.
Weekly minutes of moderate physical activity
Weekly minutes of vigorous physical activity
98% of counties that offered Walk Kansas in 2002 offered it again in 2003.

32 additional counties offered the program in 2003.
CONCLUSIONS

- Walk Kansas has a reasonable public health impact
  - A broad reach into the population
  - Is effective in changing physical activity
  - Can be adopted by community delivery systems
    - May be modified for local structures
  - Can be implemented with good fidelity
  - Can lead to maintenance of individual activity
  - Can be sustained within community delivery systems
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