

Determining the Public Health Impact of a Community Implemented Physical Activity Program

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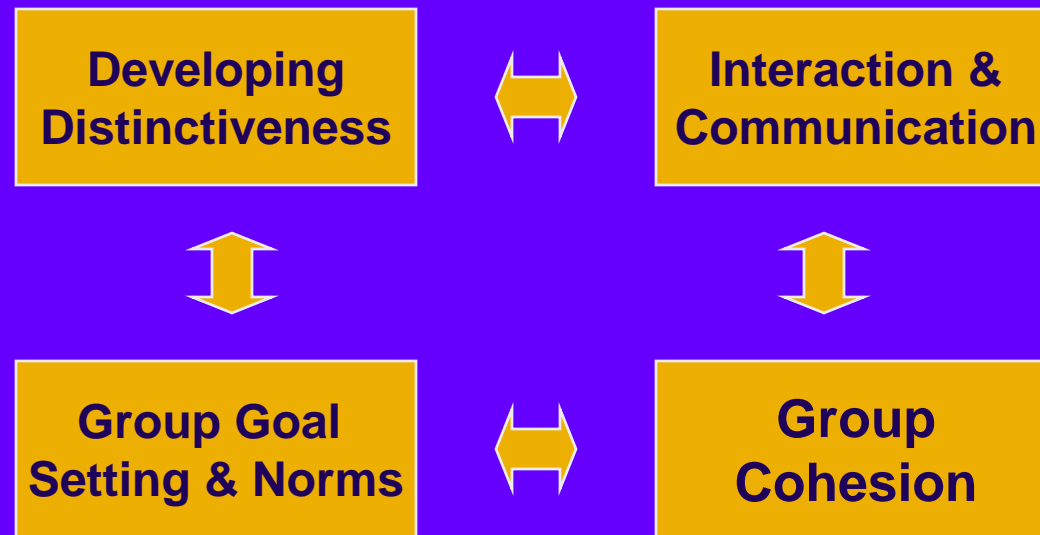
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Mike Bradshaw

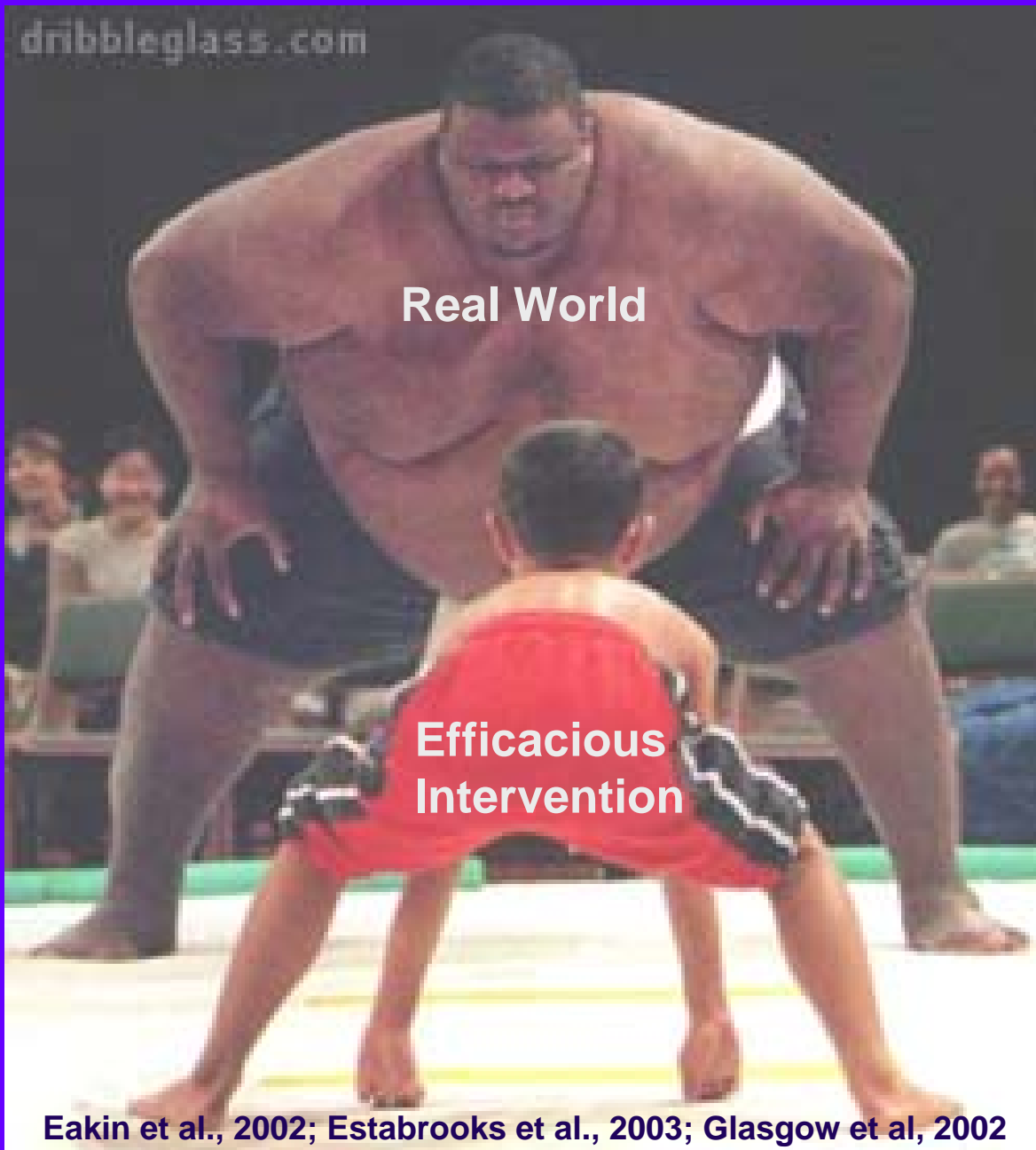
Kansas State University Research & Extension

Introduction

- ◆ **Team-building interventions that target group processes have been efficacious for physical activity promotion**



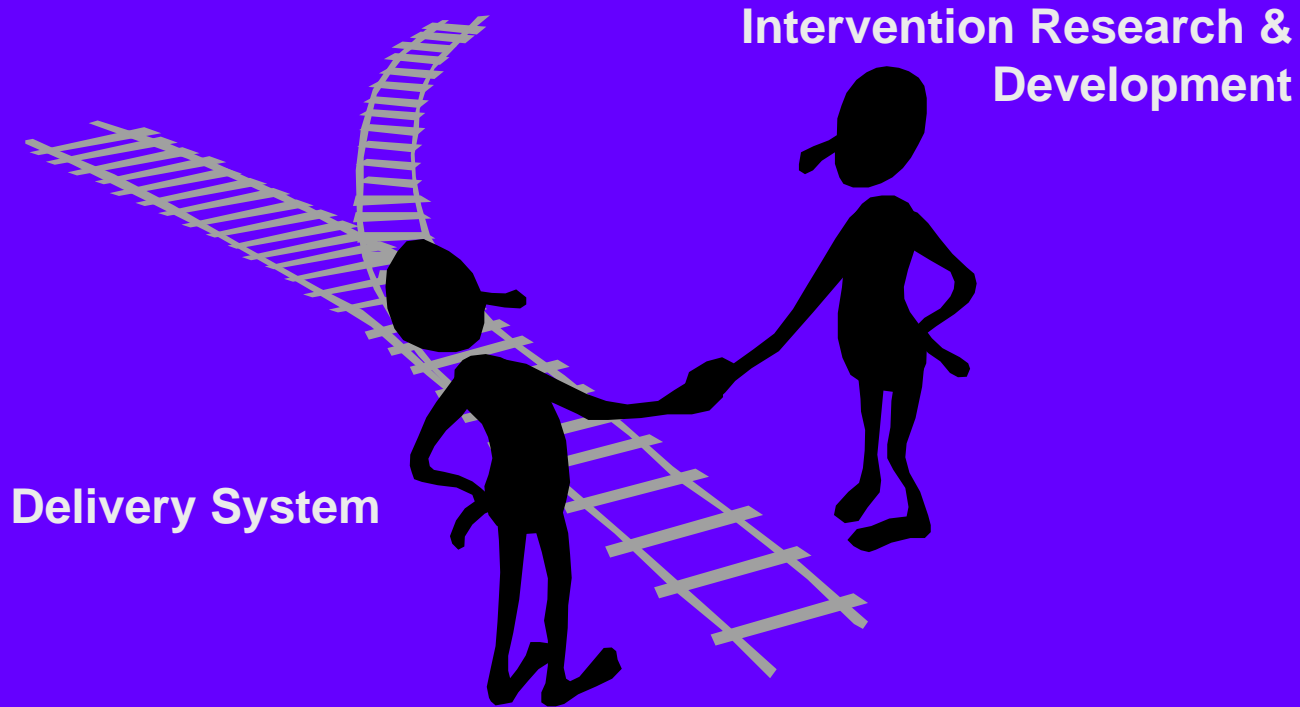
Carron & Spink, 1993; 1994; Estabrooks & Carron, 1999; Brawley et al., 2000; Rejeski et al., 2002; Estabrooks et al; 2003



Eakin et al., 2002; Estabrooks et al., 2003; Glasgow et al, 2002



A system-sensitive approach to developing self-sustaining physical activity interventions



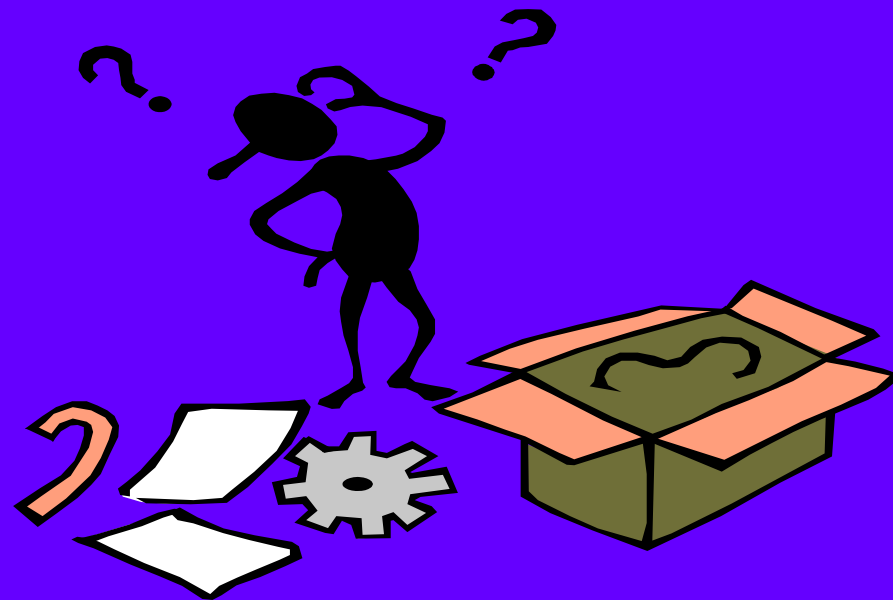
Delivery System

- ◆ **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?

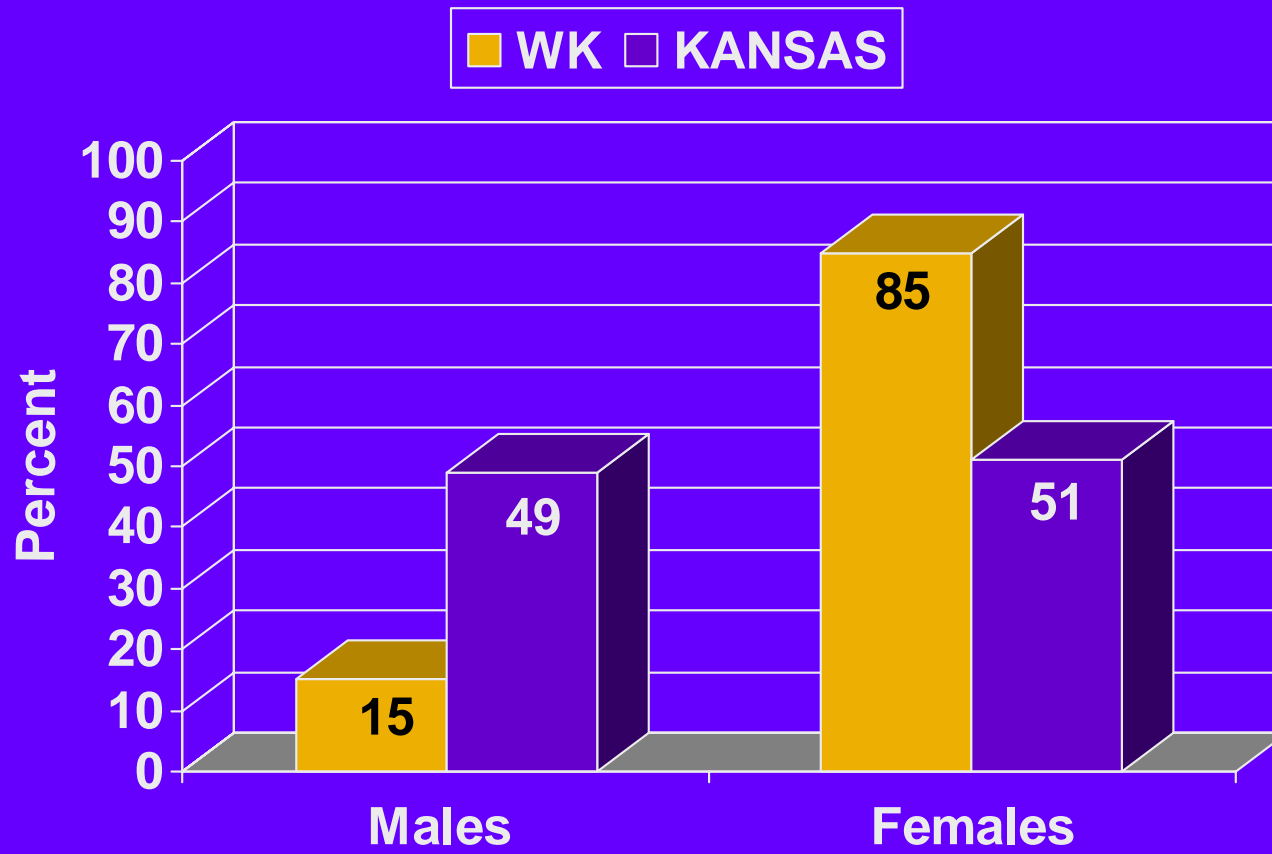


- ◆ Reach
- ◆ Effectiveness
- ◆ Adoption
- ◆ Implementation
- ◆ Maintenance
 - ◆ Individual
 - ◆ Organizational

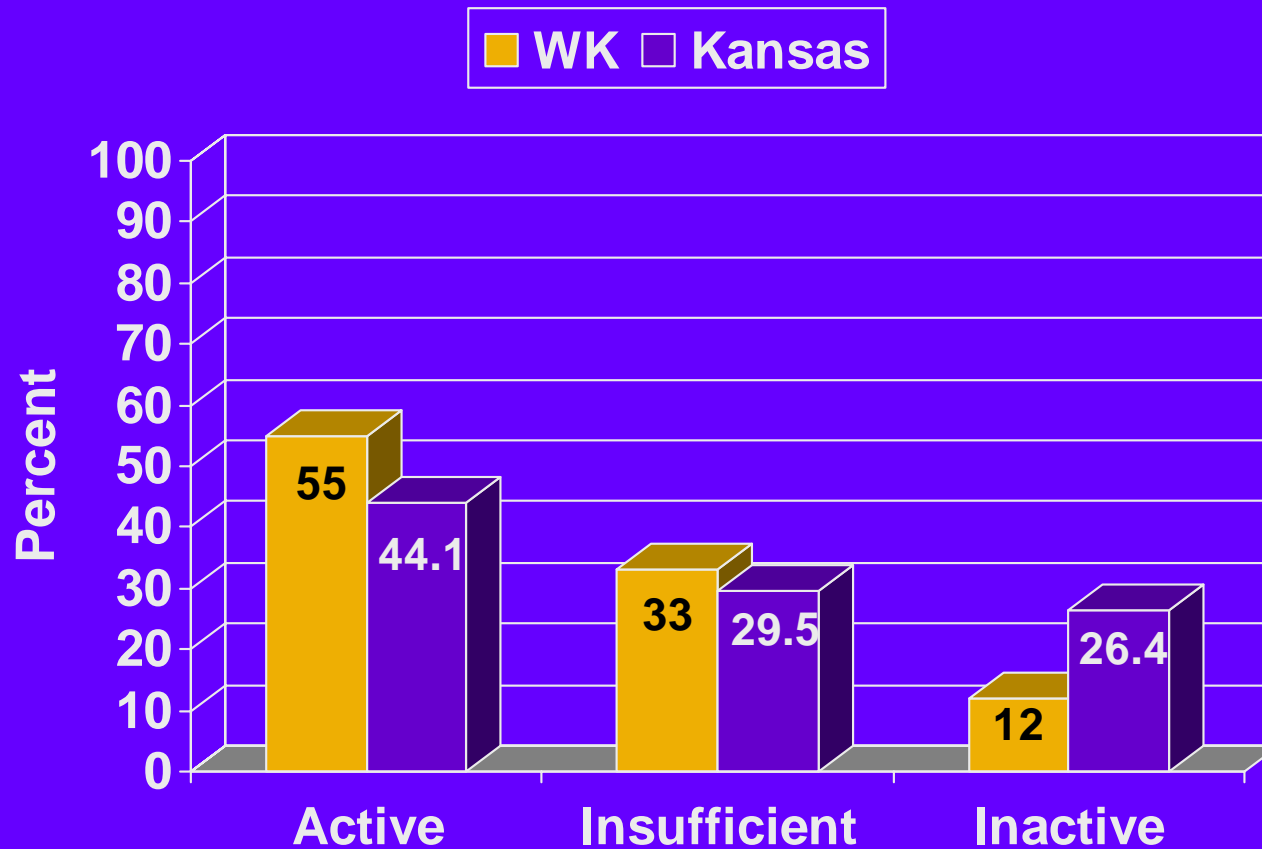
Reach

- ◆ 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; $\underline{M}_{age}=47\pm 15$)

Reach



Reach

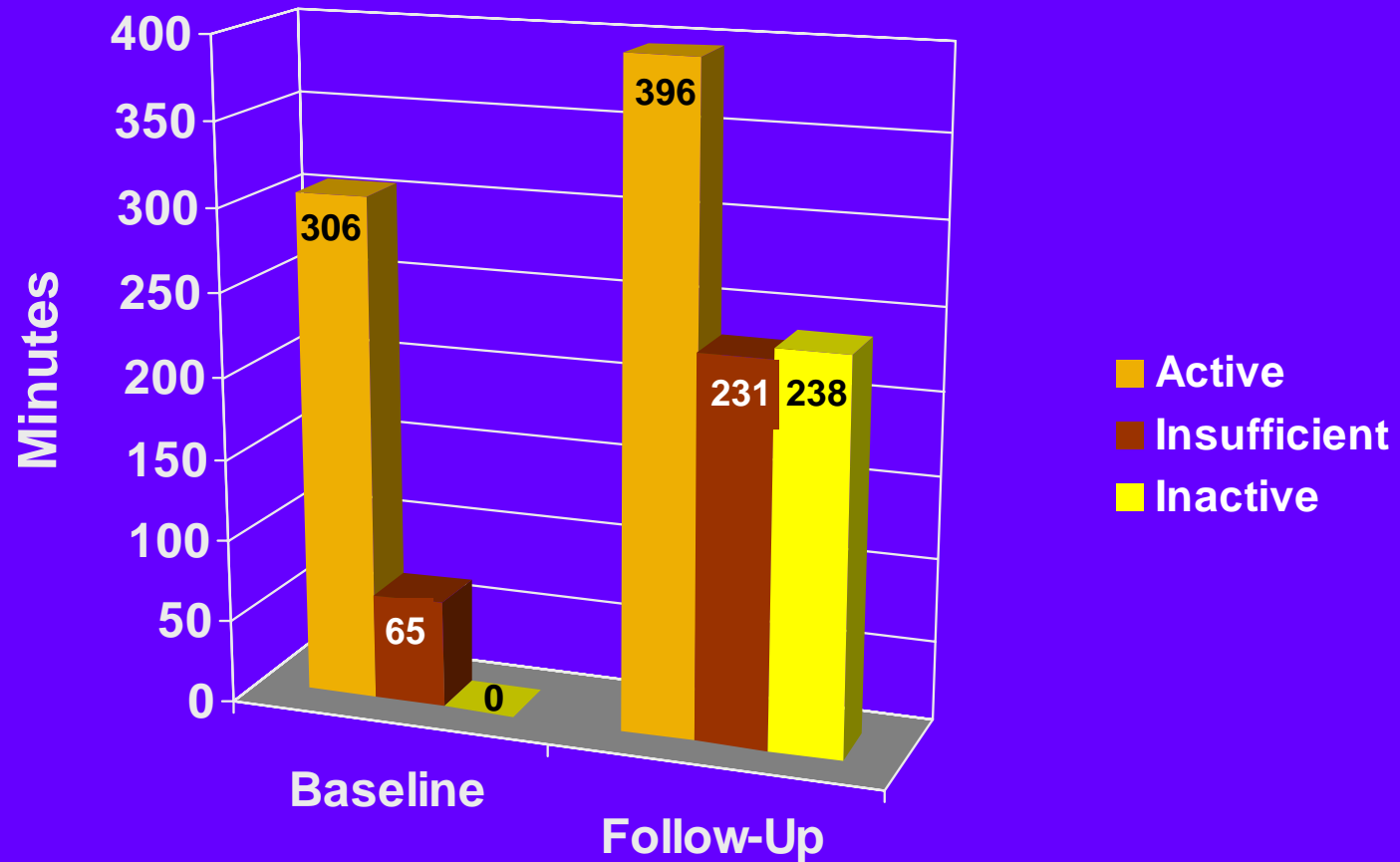


Based on BRFSS Physical Activity Questions
and Comparison to 2001 data

Effectiveness

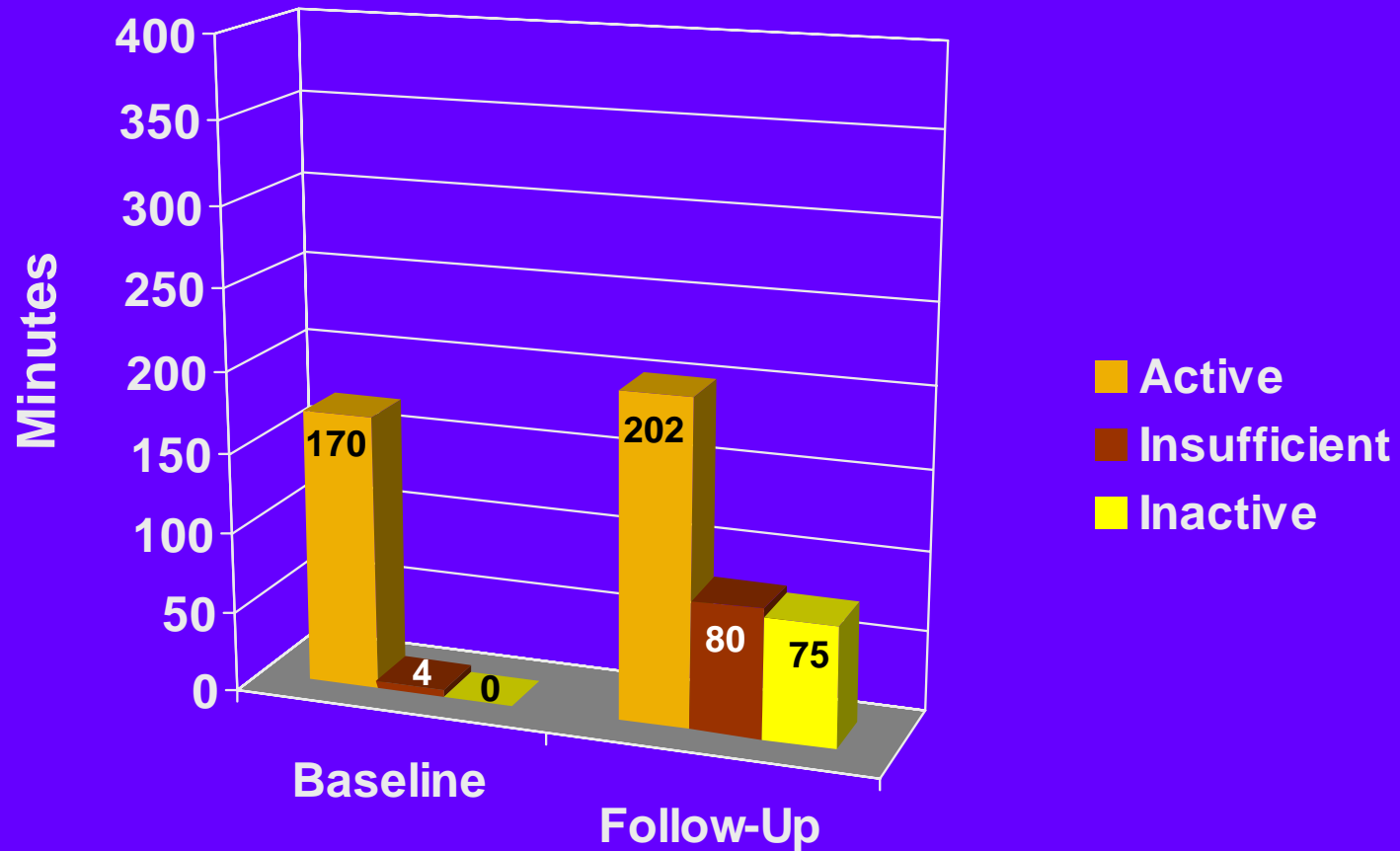
- ◆ 15 county agents agreed to complete both a pre-post assessment of their participants.
 - ◆ $n=1074$ (86% response rate to both assessments)
 - ◆ $M_{age}=47\pm15$
 - ◆ 85% Female
 - ◆ 95% Caucasian
- ◆ Effectiveness was tested based upon participants baseline categorization as: inactive ($n=88$), insufficiently active ($n=326$), or active ($n=660$)
- ◆ BRFSS PA questions used as primary outcome

Effectiveness



Weekly minutes of moderate physical activity

Effectiveness



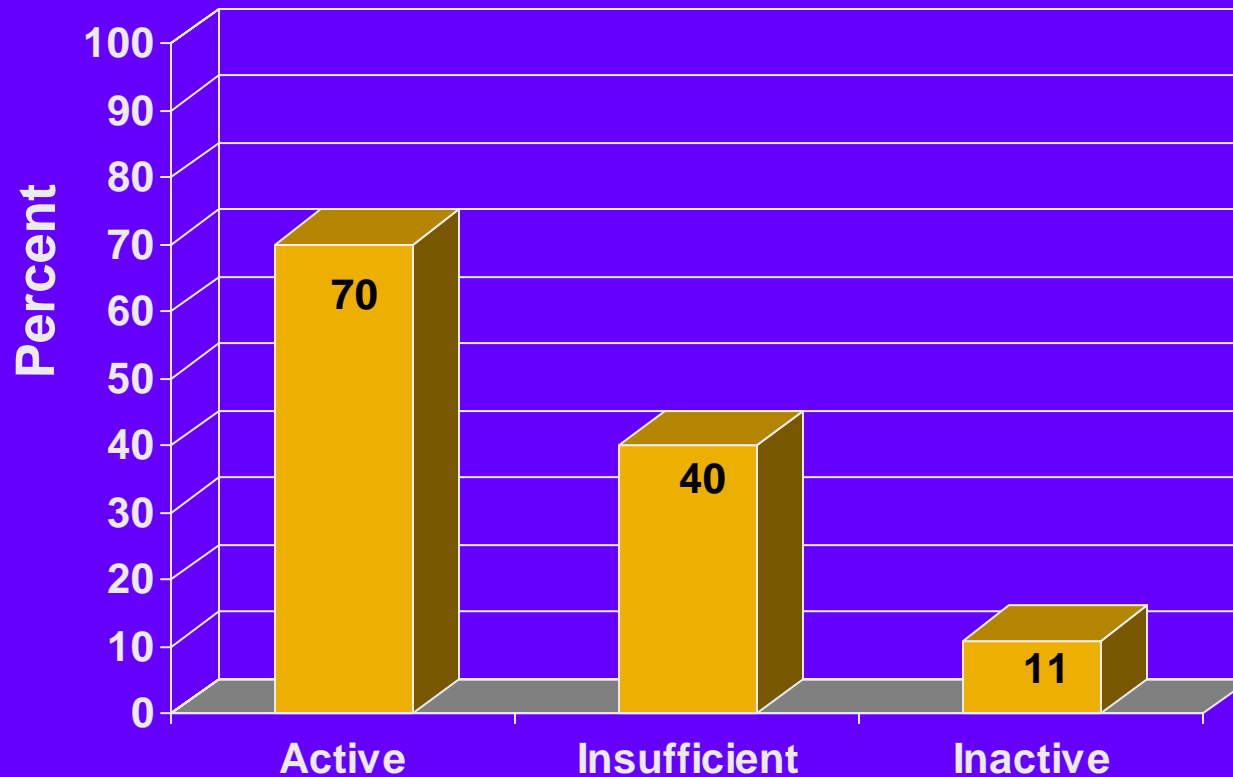
Weekly minutes of vigorous physical activity

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

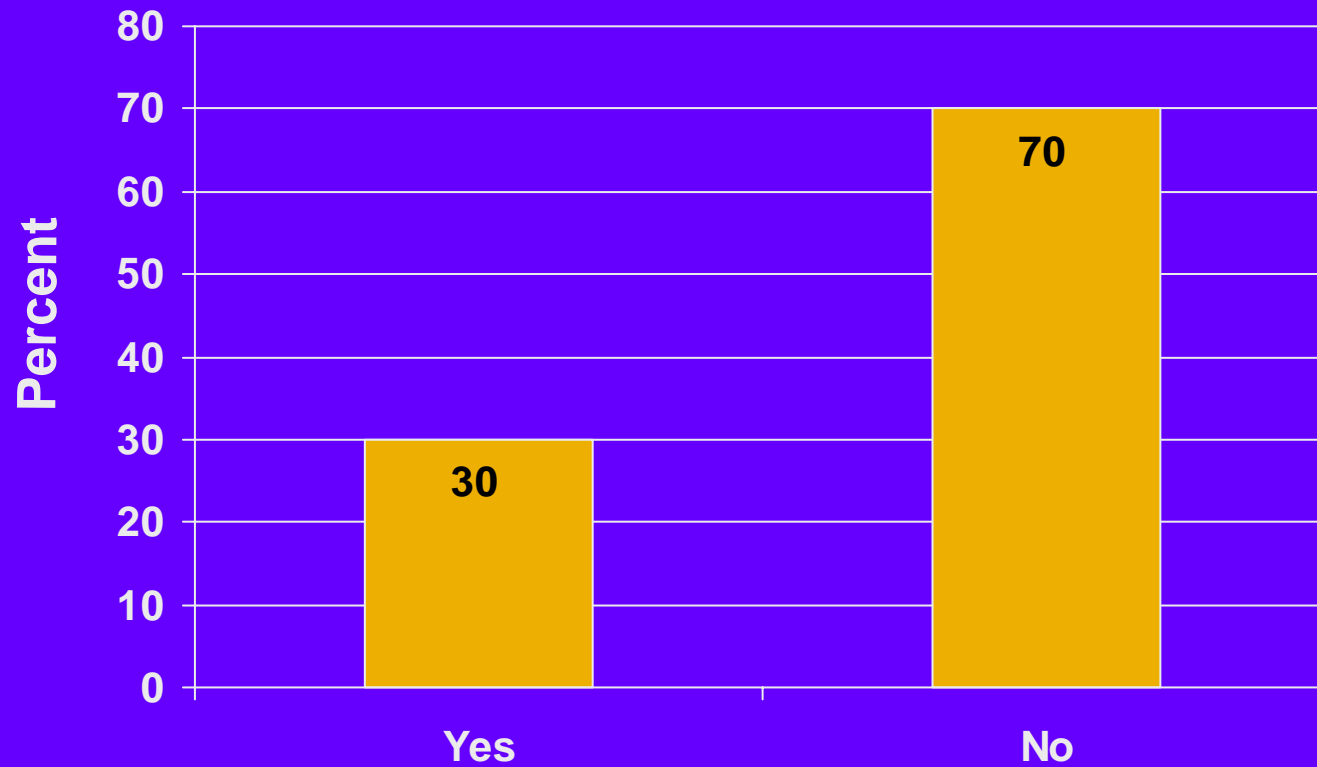


Implementation

- ◆ 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

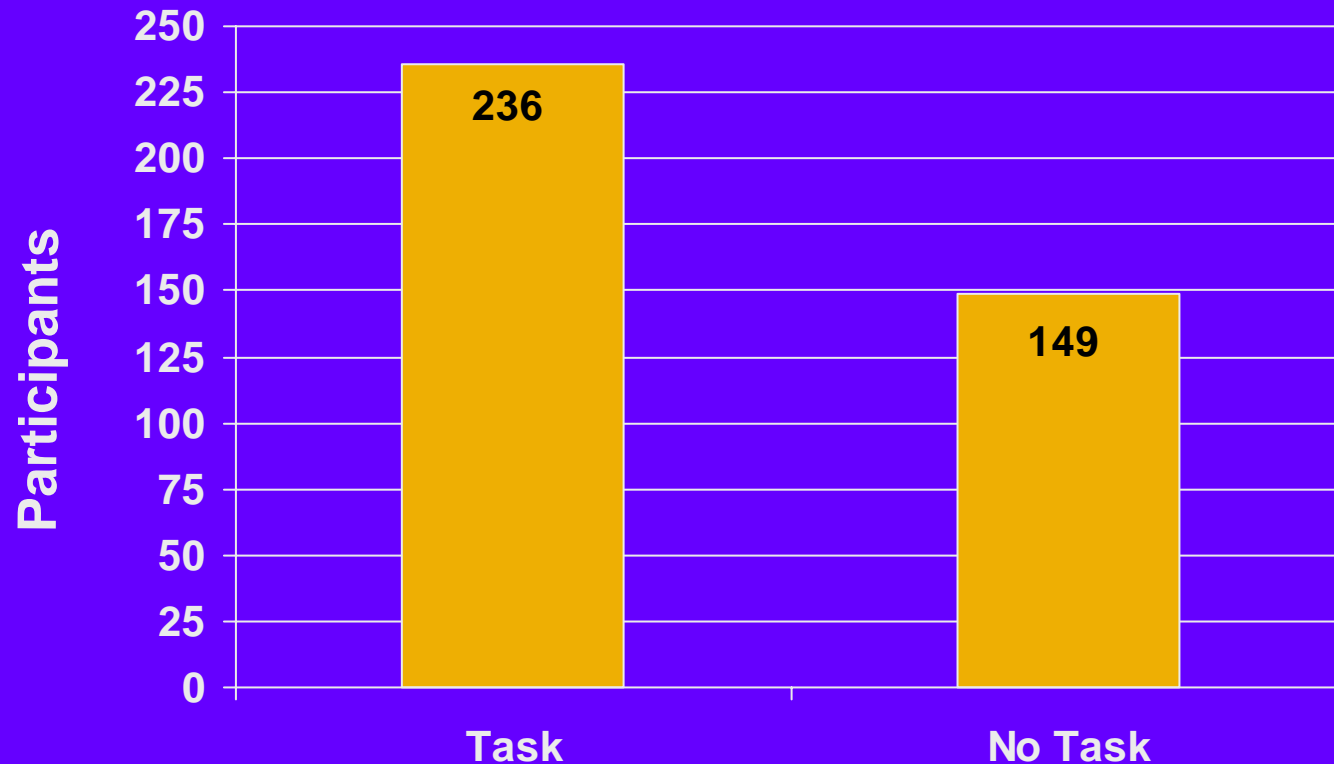
Implementation

Task Force Use



Implementation

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

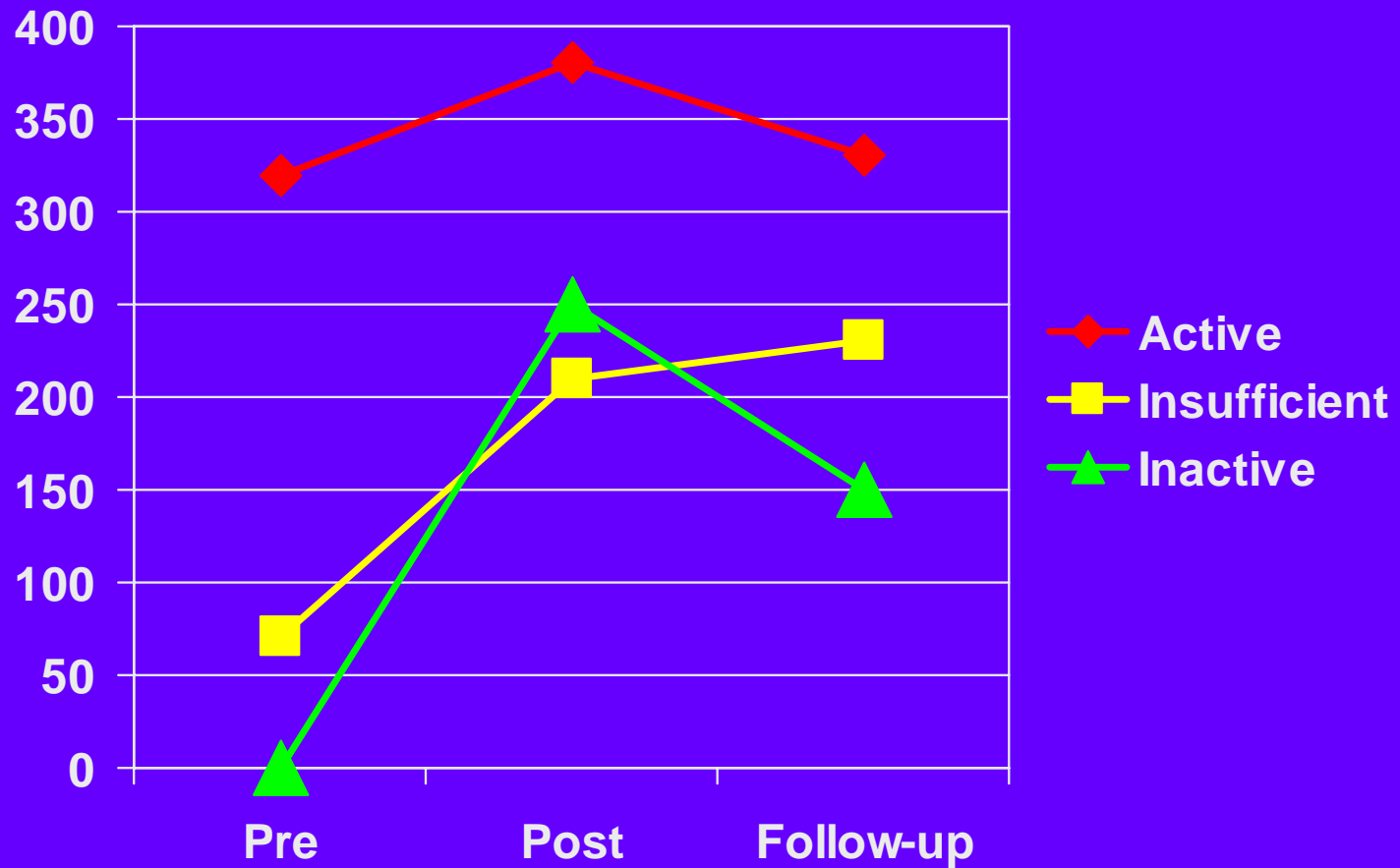


1. No difference on the self-reported strategies
2. No difference on program effectiveness

Maintenance-Individual

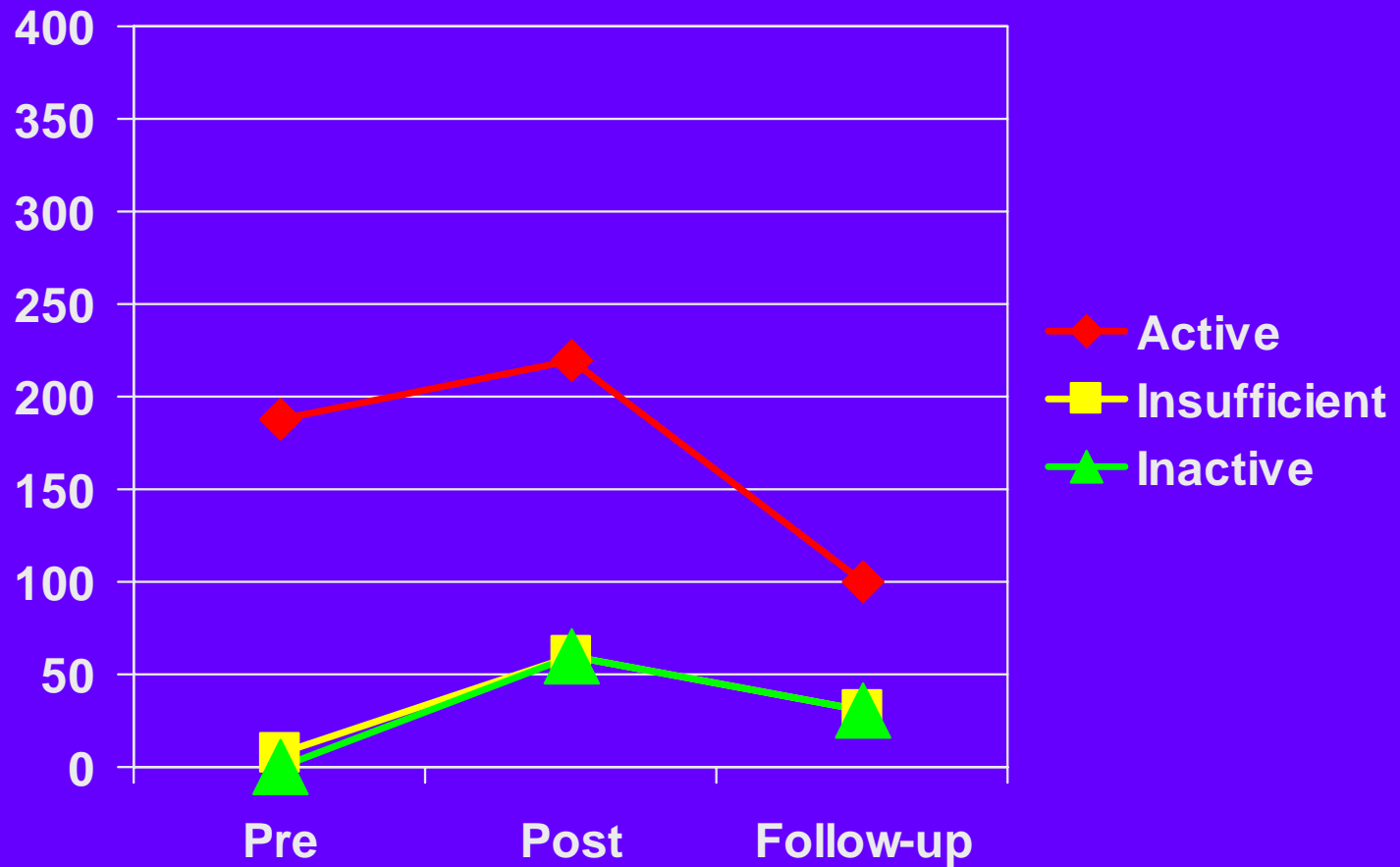
- ◆ Participants who were active ($n=75$), insufficiently active ($n=75$), or inactive ($n=68$) at baseline were randomly selected to participate in a 6-month follow-up assessment.
- ◆ Participants again completed the CDC BRFSS physical activity questions.
- ◆ Response rate to the follow-up was over 90% and did not differ by baseline physical activity category.

Maintenance-Individual



Weekly minutes of moderate physical activity

Maintenance-Individual



Weekly minutes of vigorous physical activity

Maintenance-Organizational

- ◆ 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 a maintenance of individual activity**
 - **Can be sustained within community delivery systems**

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