



# Sisters in Motion: Results of a Faith-based Community Physical Activity Intervention

O. Kenrik Duru, M.D.

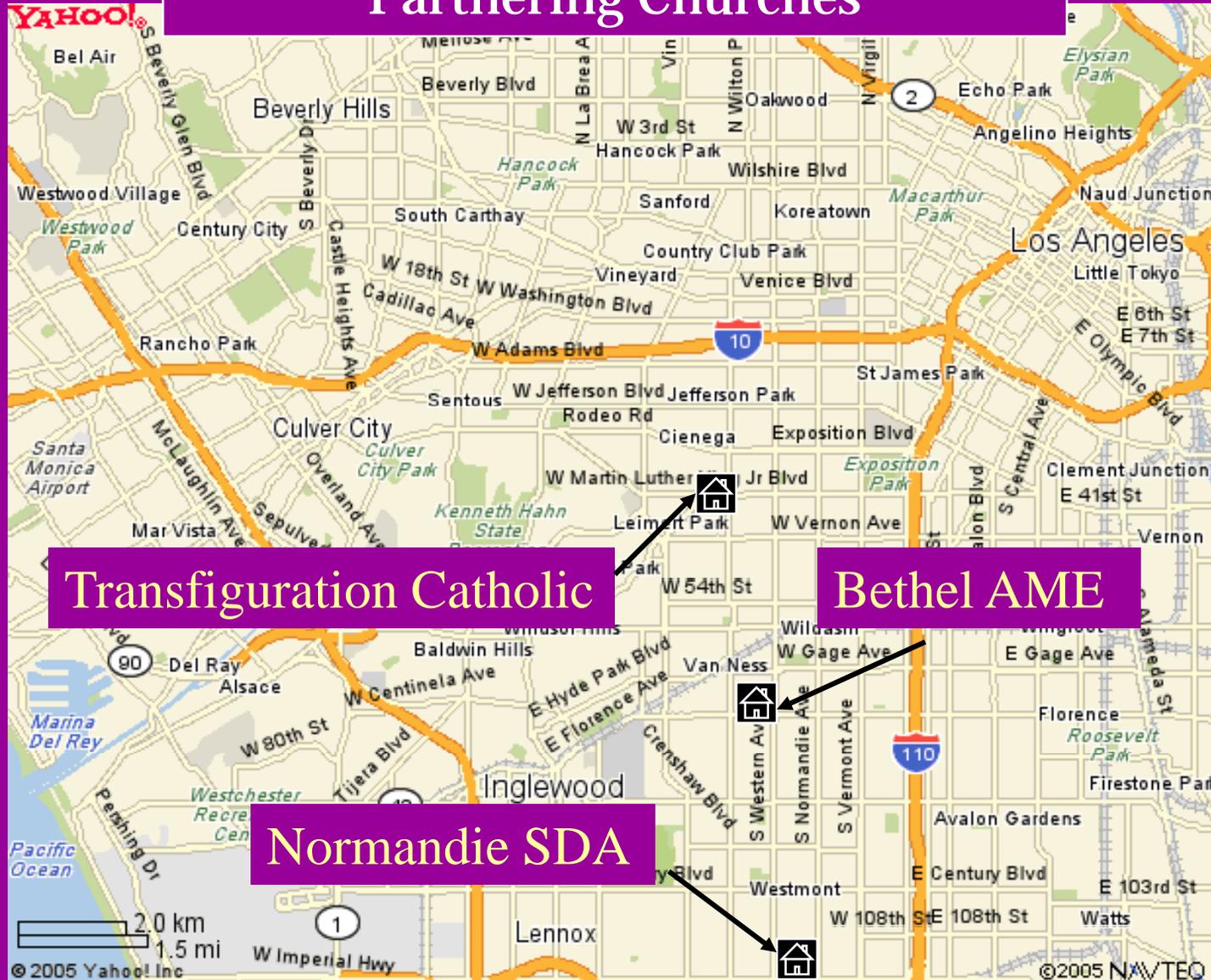
Tuesday, October 5, 2010



# Specific Aims

- To design a faith-based pilot physical activity intervention for African American women  $\geq$  60 years, to be implemented in LA churches
- To conduct a randomized evaluation determining the effect of this intervention with regard to steps walked per week

# Partnering Churches



# Inclusion Criteria

- African American women
- 60 years and over
- Able to ambulate independently without a walker (canes OK)

# Exclusion Criteria

- Already active > 30 minutes 3x/week
- Baseline pedometer reading >35,000 steps
- Positive response on Modified Physical Activities Questionnaire
  - Chest pain with exercise
  - History of loss of consciousness
  - “Heart condition” restricting PA
  - Any other reason why they should not exercise
- Participant’s MD feels program is contraindicated

# Sisters in Motion Curriculum (Intervention Group)

45 minutes/week for 8 weeks

1. Community resource guide (CHAMPS)
2. Prayer/religious expression/meditation
3. Group contracts between participants
4. Pedometer competition between small groups

# 1. Community Resource Guide

- Provided a guide of physical activities in the Greater Los Angeles area appropriate for seniors
- Indexed by activity, cost, location

## 2. Prayer/Spirituality and PA

- Meditation/prayers of gratitude – draw parallel to praying before meals
- “With God’s help, you can achieve what your mind can conceive”
- Discuss specific Bible readings that focus on social support, overcoming barriers

# 3. Contracts between Group Participants

## **Sisterhood Commitment Pledge**

The Bible tells us in Romans that in Christ we who are many form one body, and each member belongs to all the others. We need each others' help to achieve our physical and spiritual potential.

## 4. Pedometer Competition

- Challenged groups to walk each week, and the group with the most steps above their baseline was the “winner”
- Group with the most “wins” received \$20 at the end of the intervention

# Sisters in Motion PA – Intervention and Control Physical Activities

- Flexibility
  - Chair calisthenics, Yoga
- Strength/Resistance Training
  - Hand weights
- Endurance
  - Line dancing, Praise dancing

# Measurement

- Primary outcome:
  - Change in steps walked (pedometer)
- Secondary outcomes:
  - Weight
  - Blood pressure

# Baseline Data

	Intervention (n=34)	Control (n=28)*
Age	73.8 years	71.9 years
Body mass index	32.5	31.1
Systolic blood pressure	156 mmHg	147 mmHg
Diastolic blood pressure	82 mmHg	81 mmHg
Education (HS or less)	26%	21%
Income ( $\leq$ \$2000/mo)	63%	44%

\*Lost participants due to LBP, breast cancer, “personal problems,” “illness,”  
“annoyance with study”

# Baseline Data

	Intervention	Control
Pedometer steps/week	14905 (584)	14929 (625)

# 6-Month Outcomes (unadjusted)

PRIMARY	Intervention	Control	p
$\Delta$ Steps/week (SD)	$\uparrow 10146$ (14146)	$\uparrow 2988$ (8653)	S
SECONDARY			
$\Delta$ Weight in lbs. (SD)	$\uparrow 1.6$ (9.5)	$\uparrow 1.6$ (6.3)	NS

## Regression Models – 6-Month Secondary Outcomes

	Estimate	p
Systolic Blood Pressure (controlling for baseline)	-6.8	0.07
Diastolic Blood Pressure (controlling for baseline)	-1.5	NS

# Results Summary

1. ↑ steps walked per week by pedometer in the intervention group
2. Trend toward improved systolic blood pressure in the intervention group
3. No significant differences in weight at 6 months