

CVD Health Disparities and Appalachia

- Appalachian Kentucky is in the top 1% of the nation in cardiovascular disease (CVD) morbidity and mortality
- Individuals in Appalachian Kentucky have the highest rates of multiple CVD risk factors seen in any state
- Problem amplified by the distressed environment
 - County with the worst life expectancy in the U.S.
 - Of 13 counties in the U.S with a decreased life expectancy (1980 to 2014), 8 are in Appalachian Kentucky
 - Among the poorest counties in the U.S.
- There is a critical need to test sustainable CVD risk reducing interventions appropriate for Appalachia

Approach

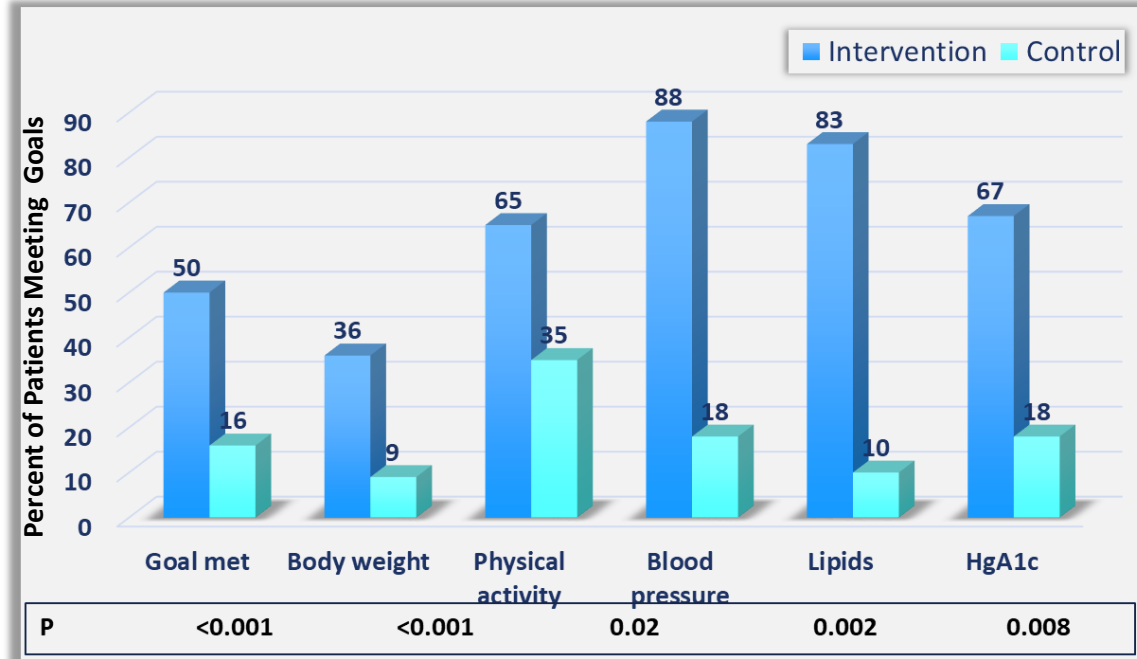
- Lifestyle interventions reduce CVD risk by 44%
- Most effective when patients are given tools to engage in self-care
- Knowledge is necessary but not sufficient
 - interventions individualized to patients' needs and barriers
- In medically under-served environments, CVD risk reduction must focus on lifestyle change
 - increase individuals' self-care abilities
 - culturally appropriate
 - components that overcome barriers in such environments



Specific Aims and Results

I. Compare 4 and 12 month impact of HeartHealth intervention vs control on CVD risk factors selected by patients

- tobacco use
- blood pressure
- lipid profile
- HgA1c for diabetics
- body mass index
- depressive symptoms
- physical activity level



Specific Aims and Results

2. Compare 4 and 12 month impact on all CVD risk factors

- Significant reductions seen at 4 months in HeartHealth intervention compared to control groups and maintained at 12 months (seen regardless of gender, health literacy or depressive symptoms)
 - Body mass index
 - Blood pressure
 - Total and HDL cholesterol
 - Depressive symptoms
 - Overall Framingham risk score
- No changes seen in LDL or triglycerides

Conclusions

- Interventions like HeartHealth that focus on self-care of CVD risk factors and that are derived from collaboration with the community of interest are effective in medically underserved, socioeconomically distressed rural areas.
- The success of the intervention, ease of recruitment and high retention in the face of traditional obstacles to retention suggest community-based approaches should be used to develop, refine and test other needed interventions in rural, medically underserved, socioeconomically distressed areas to reduce health disparities.

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Reduction of Cardiovascular Disease Risk Factors in Rural, Medically-Underserved, Socioeconomically Distressed High-Risk Individuals: A Randomized Controlled Trial

**Debra K. Moser, PhD, RN, Fran Feltner, DNP, RN, FAAN,
Martha Biddle, PhD, RN, Misook L. Chung, PhD, RN, FAAN, Gia
Mudd-Martin, PhD, RN, Terry A. Lennie, PhD, RN, FAAN**
University of Kentucky, College of Nursing

dmoser@uky.edu