

Master Of Public Health Thesis Research and Field Experience Presentation

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Outline

- Thesis Presentation
 - Background
 - Rural Health, Community-Engaged Research, Coalitions
 - Current Literature
 - Research Objective
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- Conclusion
- Questions



Communities partnering with researchers: An evaluation of coalition function in a community-engaged research approach

by

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submitted in partial fulfillment of the requirements of Master of Public Health

Background

Rural Health in the United States

- Obesity¹⁻³
- Diabetes¹⁻³
- Cancer¹⁻³
- Injury⁴
- Suicide⁴
- All-age mortality¹⁻⁴



Elmer, Kansas

Image source: iStockPhoto.com

Rural, town, suburban, and city locales in the United States, FY 2012

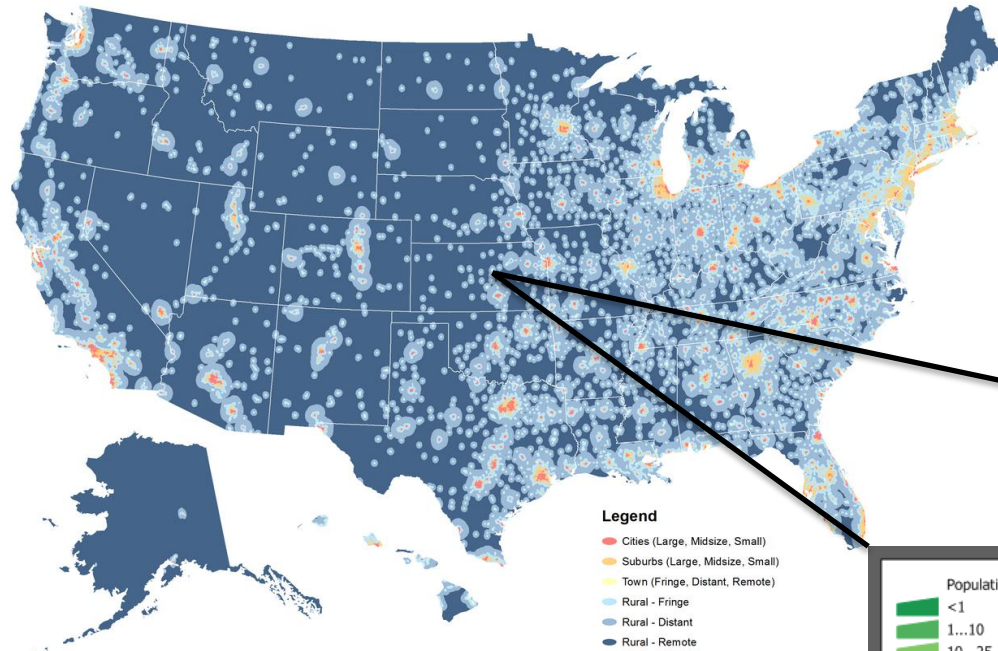
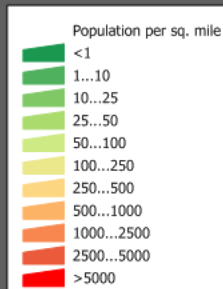


Image source: <http://blog.imls.gov/wp-content/uploads/2013/11/Map.png>

Rural = <40 persons/square mile⁵
(U.S. Department for Health and Human Services)

The United States is 72% rural land⁶

89/105 Kansas counties are considered rural⁵



Source: U.S. Census Bureau
Census 2010 Summary File 1
population by census tract

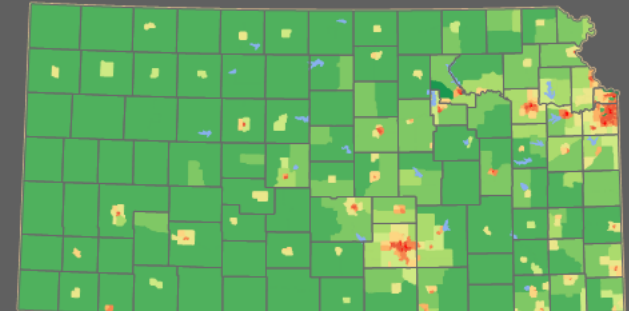


Image source: http://en.wikipedia.org/wiki/Kansas#/media/File:Kansas_population_map.png

Rural Health in the United States



Image source: <https://teachersh.scis-his.net/jclements/2014/09/24/esol-reading-activity-three/>

Elmer, Kansas

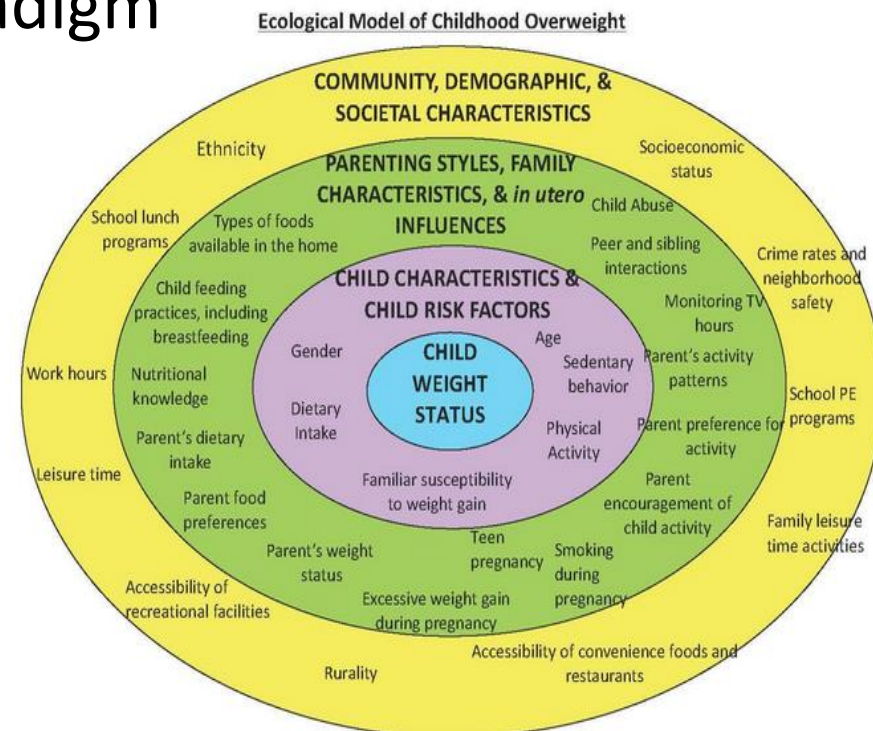


Image source: <http://www.urbanplanet.org/forums/index.php/topic/6590-show-your-citys-density/>

Kansas City

Social and Behavioral Approaches to Public Health

- Transtheoretical Model (Stages of Change)
- Information Processing Paradigm
- Theory of Reasoned Action
- Social Cognitive Theory
- Health Belief Model
- Social Ecological Model
- + more!



Based on expanded version of Davison & Birch (2001), enhanced by Reed et al, 2011. Obesity in Rural Youth: Looking Beyond Nutrition and Physical Activity. JNE Vol.43, No. 5, Pg. 403.

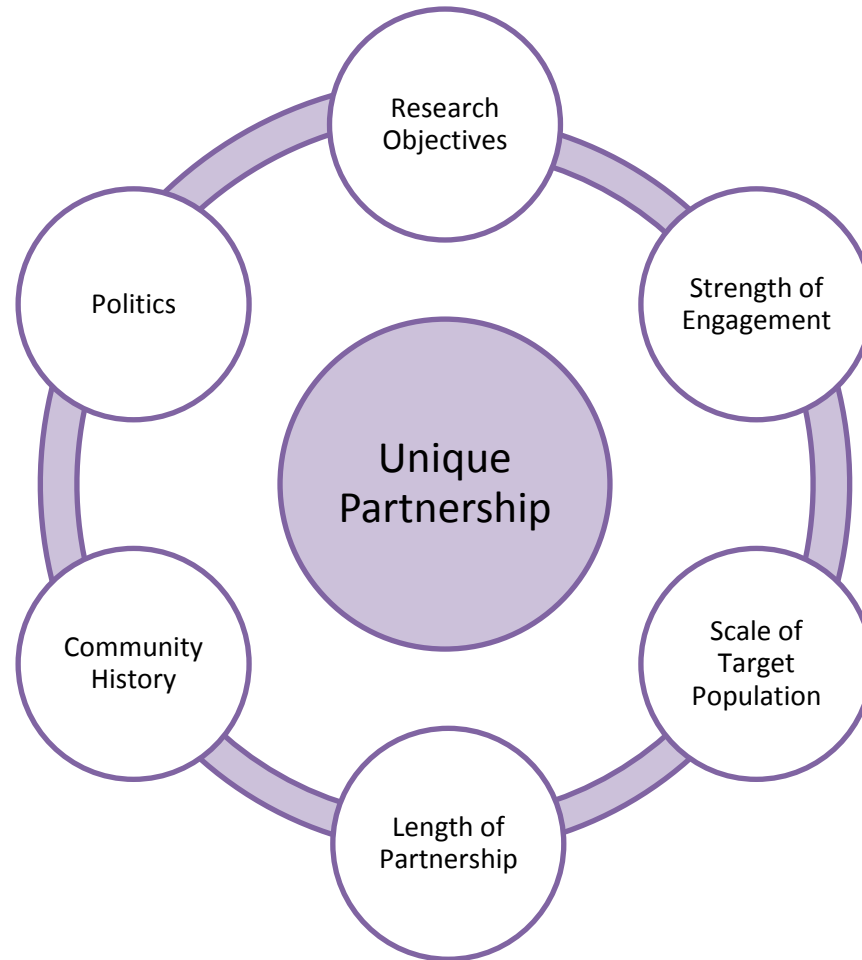


Applying what works, and doing what is right for the setting

- Community-Engaged Research (CEnR)^{7,8}
 - Incorporation of community stakeholders into traditional public health or academic research
 - Framework to conduct research with an ecological approach
 - Evidence-based
 - Community tailored

Image source: <http://communityhealth.org/products-services/cbpr/>

CEnR⁸



Community Coalitions

- Community activists that mobilize locally to promote improved conditions for their community⁹
 - Parents
 - Teachers
 - Law enforcement
 - Non-profit organizations
 - Religious leaders
 - Healthcare providers
 - Concerned citizens
 - + more!



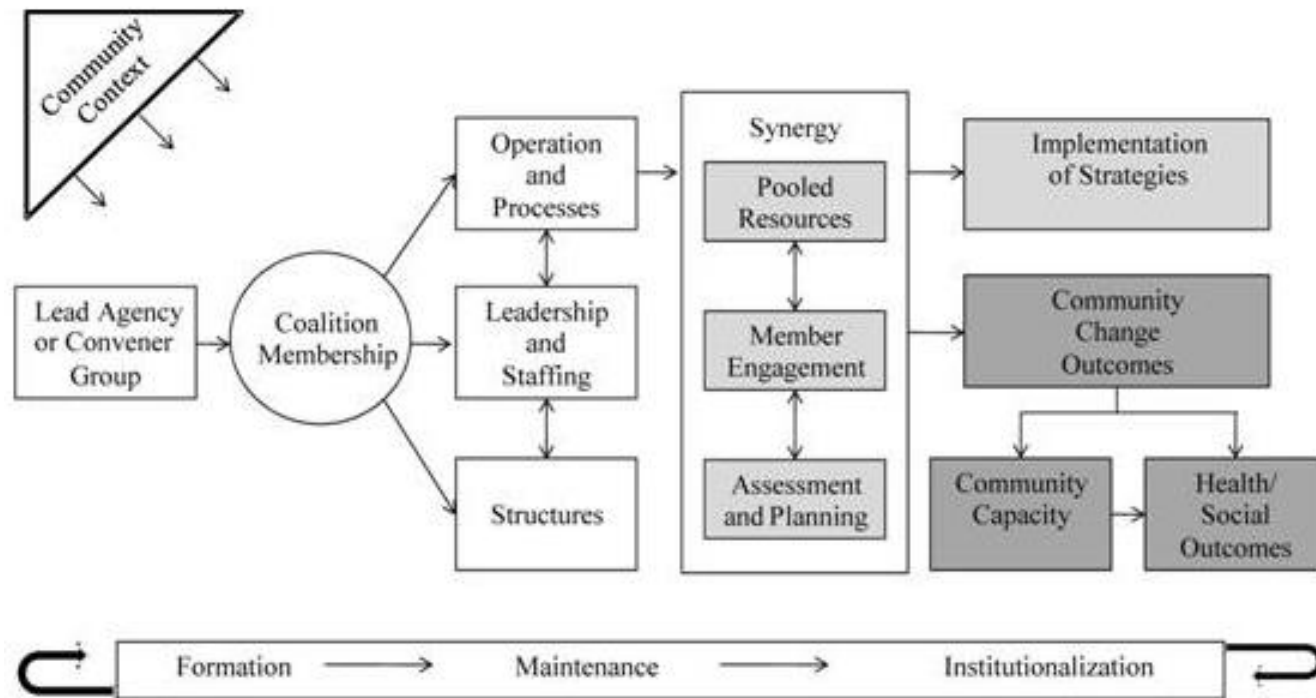
Image source: <https://diy.org/skills/urbandesigner/challenges/1298/attend-a-community-planning-meeting>

Current Literature

- Public health efforts rooted in local communities successful in addressing complex health problems and reducing health disparities¹⁰⁻¹²
- Limited information regarding partnership process^{13,14}
- Focus on health outcome measures^{14, 15}

- Limited information regarding coalition groups as public health partners¹⁶
- Future research on community coalitions should be based in coalition theory, address theoretical constructs:¹⁷
 - Community Organization and Development Model
 - Framework for Partnerships and Community Development
 - Framework of Organized Viability
 - Model of Community Health Governance
 - Stages of Development Theory
 - + more!

Community Coalition Action Theory (CCAT)



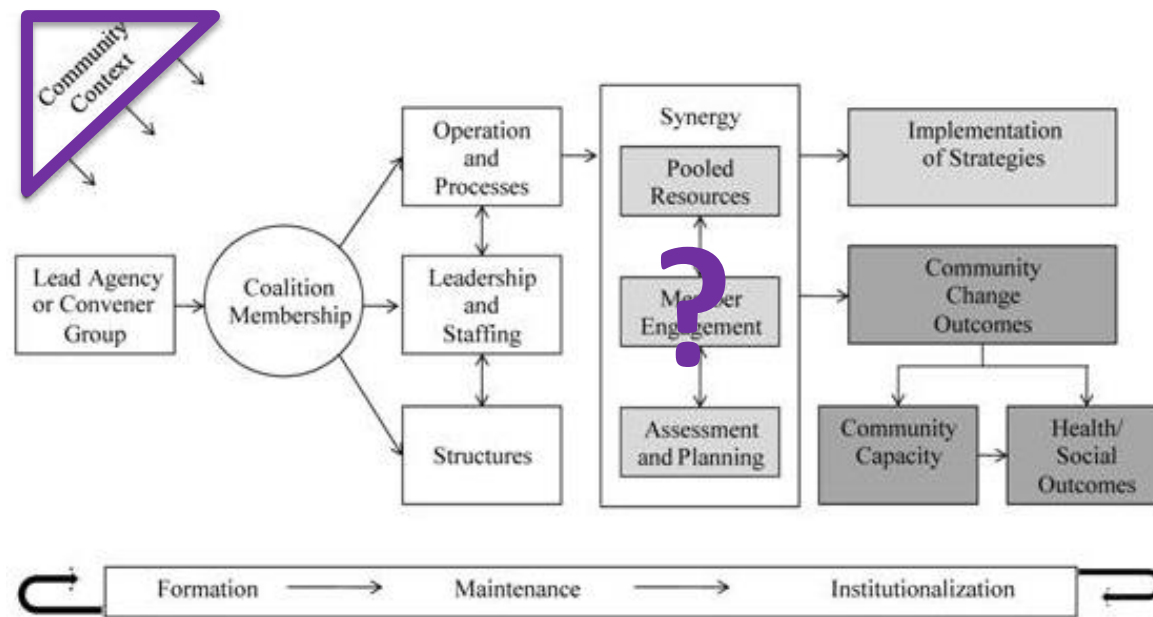
Model source: <http://aspe.hhs.gov/health/reports/2010/sustainlit/report.shtml>

- Butterfoss, 2007: Coalition constructs determine community health outcomes¹⁸

- Several studies have reinforced the logic proposed by the CCAT by linking coalition constructs to short- and intermediate-term indicators of coalition success^{3,16,19-24}
 - Membership and recruitment
 - Decision-making
 - Conflict
 - Leadership
 - Staffing
 - Trust
 - Communication
 - Mission strategy and action plan
 - Participation
 - Coalition capacity
- No literature regarding CEnR dose-response relationship

Research Objective

- This study seeks to evaluate the effects of CEnR partnership on existing rural community health coalitions involved in the pilot year of a collaborative CEnR project.



Model source: <http://aspe.hhs.gov/health/reports/2010/sustainlit/report.shtml>

Methods and Procedures



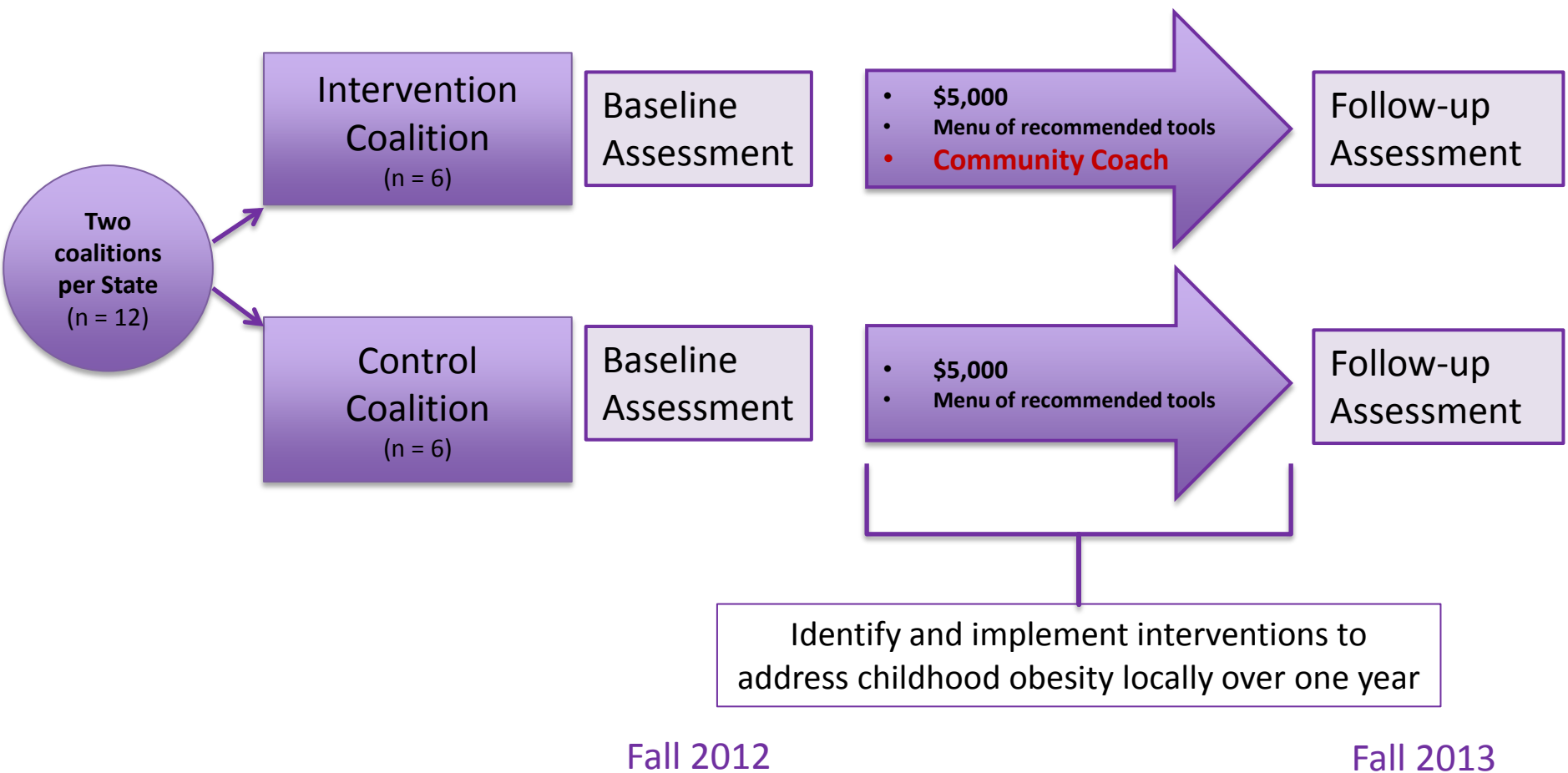
"O.K., let's slowly lower in the grant money."

Source: <http://www.rogerebert.com/rogers-journal/the-new-yorker-no-the-new-yorker>

Mobilizing Rural Low-income Communities to Assess and Improve the Ecological Environment to Prevent Childhood Obesity



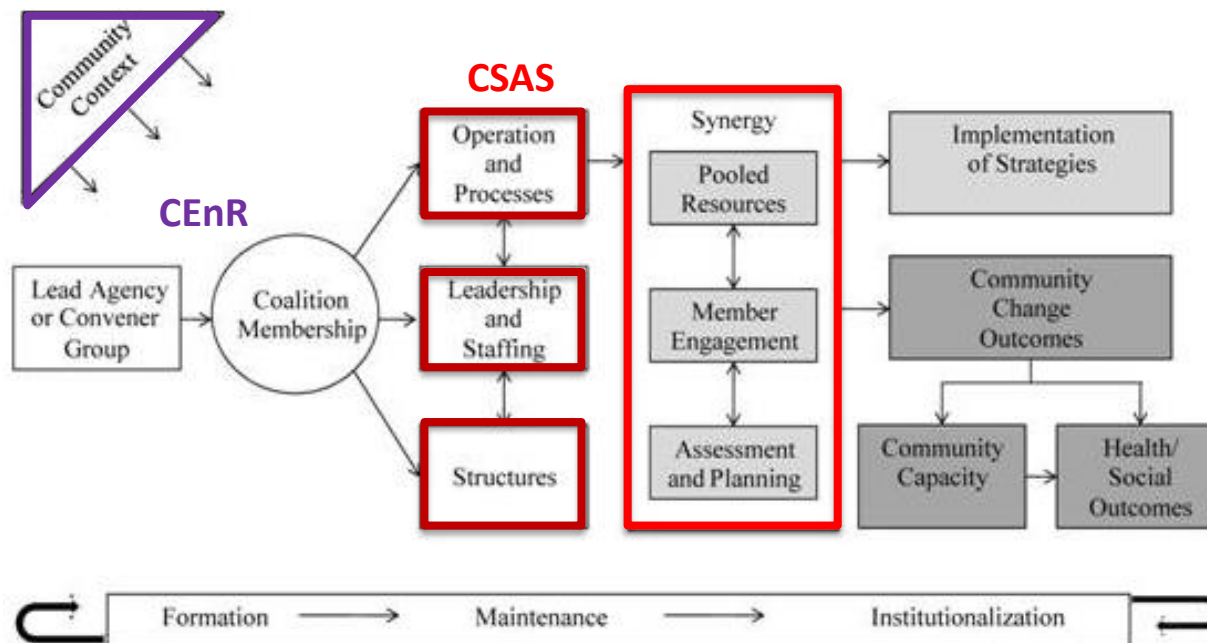
- Collaborative, multi-state, multi-disciplinary research project to address childhood obesity in low-income rural communities
- This project was funded by the Agriculture and Food Research Initiative (AFRI) from the USDA National Institute of Food and Agriculture



Measures

• Coalition Self-Assessment Survey (CSAS)

- Quantitative data regarding constructs of coalition function²³
- 41 questions, ~30 minutes
- High face validity, in-depth use of tool²⁵



Data Analysis

- SPSS Version 21.0
- Three comparison groups
 - Control Baseline vs. Control Follow-up
 - Intervention Baseline vs. Intervention Follow-up
 - Control vs. Intervention at Follow-up
- Bivariate analyses
 - Pearson's Chi-square test for independence
 - Change in categorical variables within and between groups
 - Mann-Whitney U test
 - Change in Likert-type ordinal variables within and between groups
- Statistical significance set at $p < 0.05$

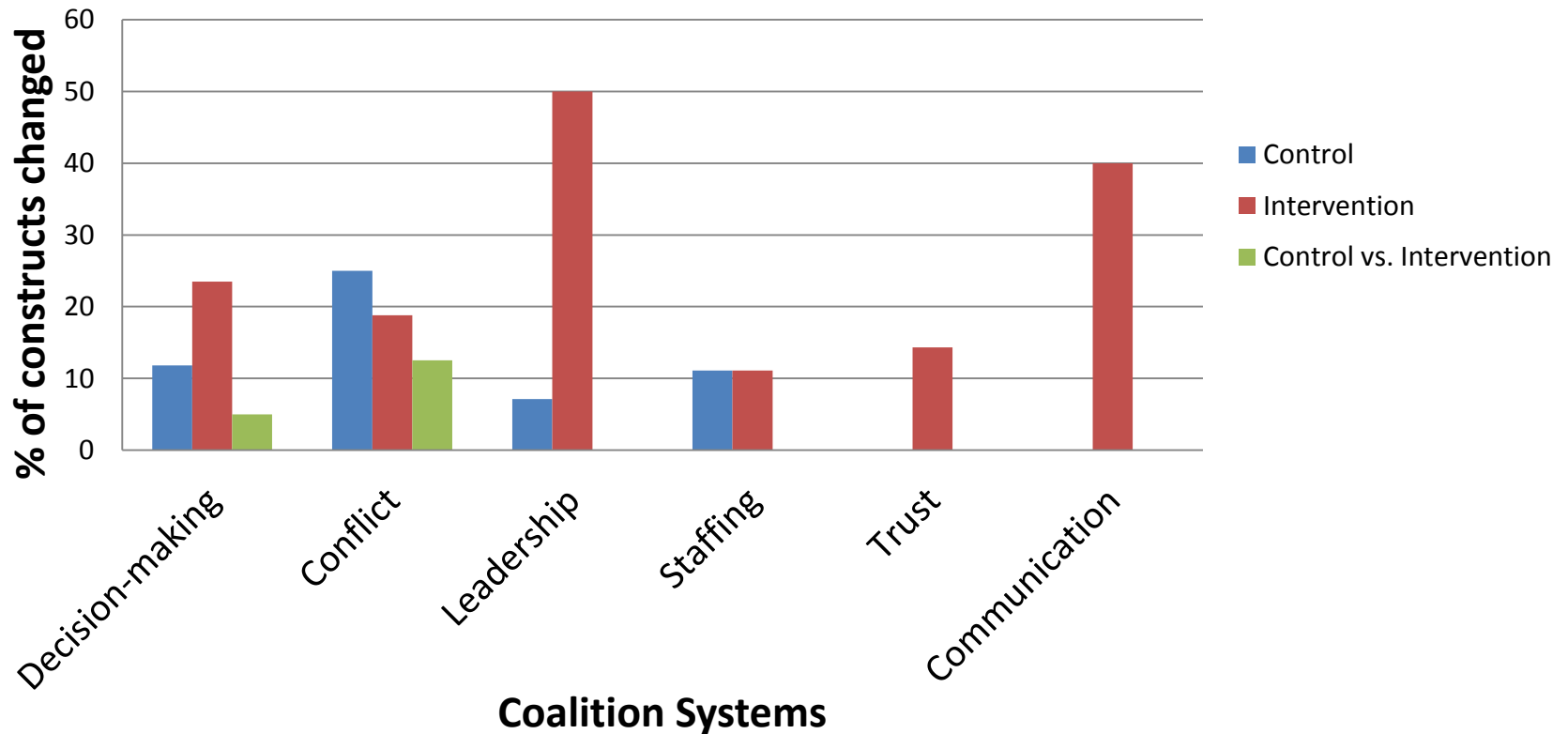
Results

Demographics

Variables	Control Baseline	Control Follow-up	Intervention Baseline	Intervention Follow-up
N	57	42	76	71
Gender				
Male	14%	9.5%	17.1%	12.7%
Female	82.5%	90.5%	81.6%	84.5%
Age	47.09 (SD = 12.72, Range = 23-77)	47.66 (SD = 12.90, Range = 13-68)	46.78 (SD = 11.79, Range = 23-73)	47.70 (SD = 10.64, Range = 26-73)
Race/Ethnicity				
African American	5.3%	2.4%	-----	-----
Caucasian	89.5%	97.6%	98.7%	100%
Latino or Hispanic	-----	2.4%	-----	-----
Education				
≤ Grade 8	-----	2.4%	-----	-----
High school	7%	4.8%	3.9%	9.9%
Tech or Vocational	1.8%	4.8%	6.6%	8.5%
College	57.9%	50%	50%	45.1%
Graduate School	29.8%	35.7%	38.2%	36.6%
Community Sector Representation	14	11	17	17

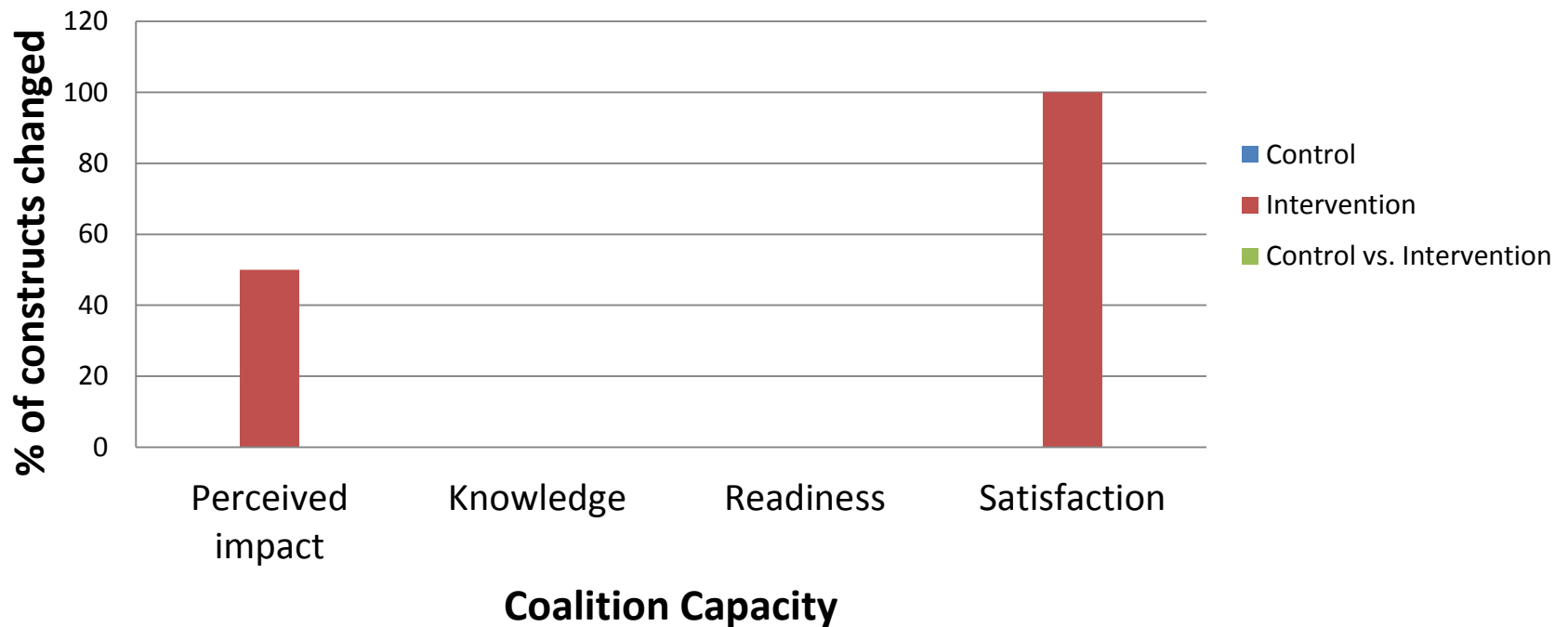
Coalition Systems

Significant changes in coalition constructs related to coalition systems



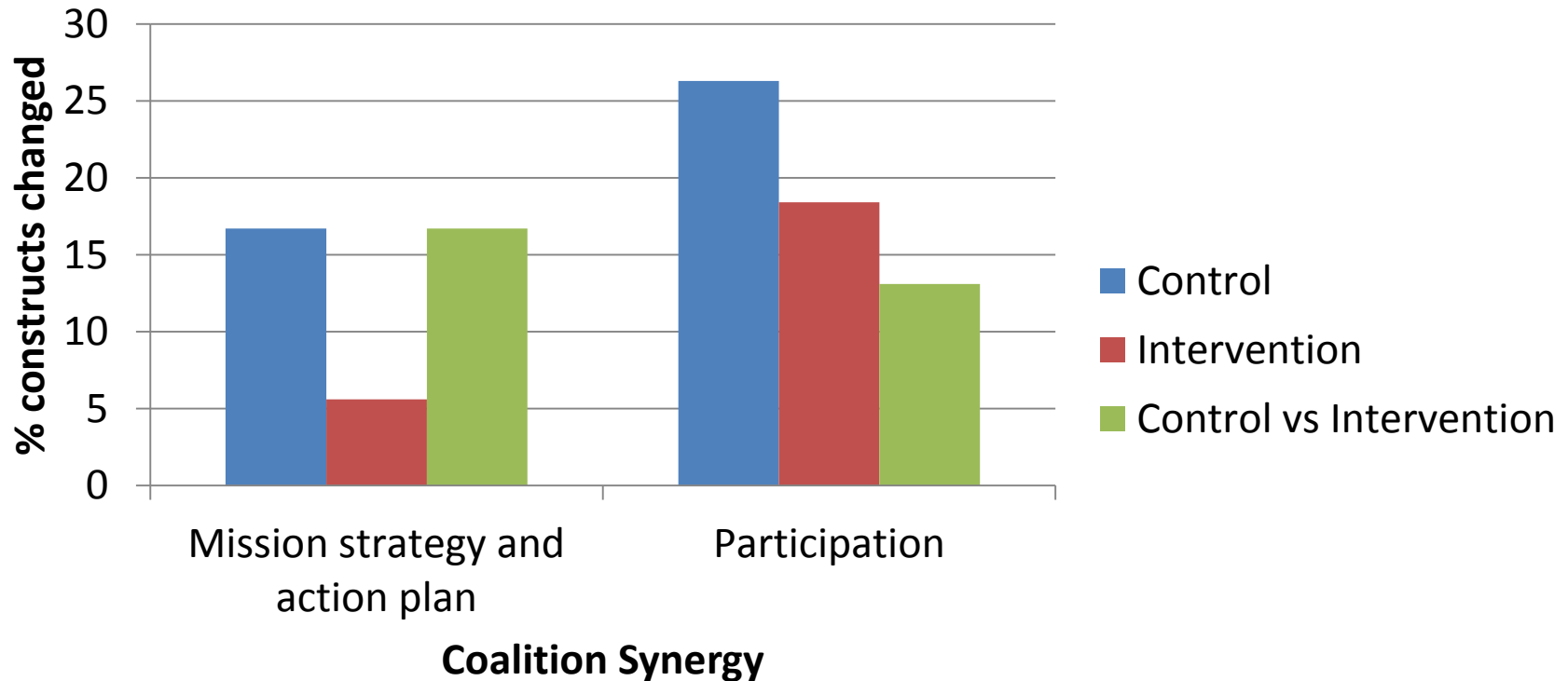
Coalition Capacity

Significant changes in coalition constructs related to coalition capacity



Coalition Synergy

Significant changes in coalition constructs related to coalition synergy



Mission Strategy

Mission strategy/Action Plan	Control	Intervention	Control vs. Intervention
Notification of meetings is timely	51.60/40.43 473.00, p = 0.047*	63.54/75.29 1975.00, p = 0.05*	50.81/59.91 1231.00, p = 0.10
Background materials needed for meetings are prepared in advance of meetings (agendas, minutes, study documents)	51.73/37.12 795.00, p = 0.02*	58.82/73.51 1689.50, p = 0.01*	44.78/69.75 1021.00, p = 0.003*
Informative committee and/or task force reports are routinely made to the entire coalition	43.49/37.89 661.00, p = 0.003*	57.44/66.81 1621.00, p = 0.10	46.86/54.76 1281.00, p = 0.15

*Significant measures, p < 0.05

Discussion

CEnR



- Decision-making
- Conflict resolution
- Staffing
- Participation
- Leadership (1/14 variables)

CEnR

w/ Community Coach



- Leadership (7/14 variables)
- Trust
- Communication
- Coalition Capacity
- Mission strategy/action plan

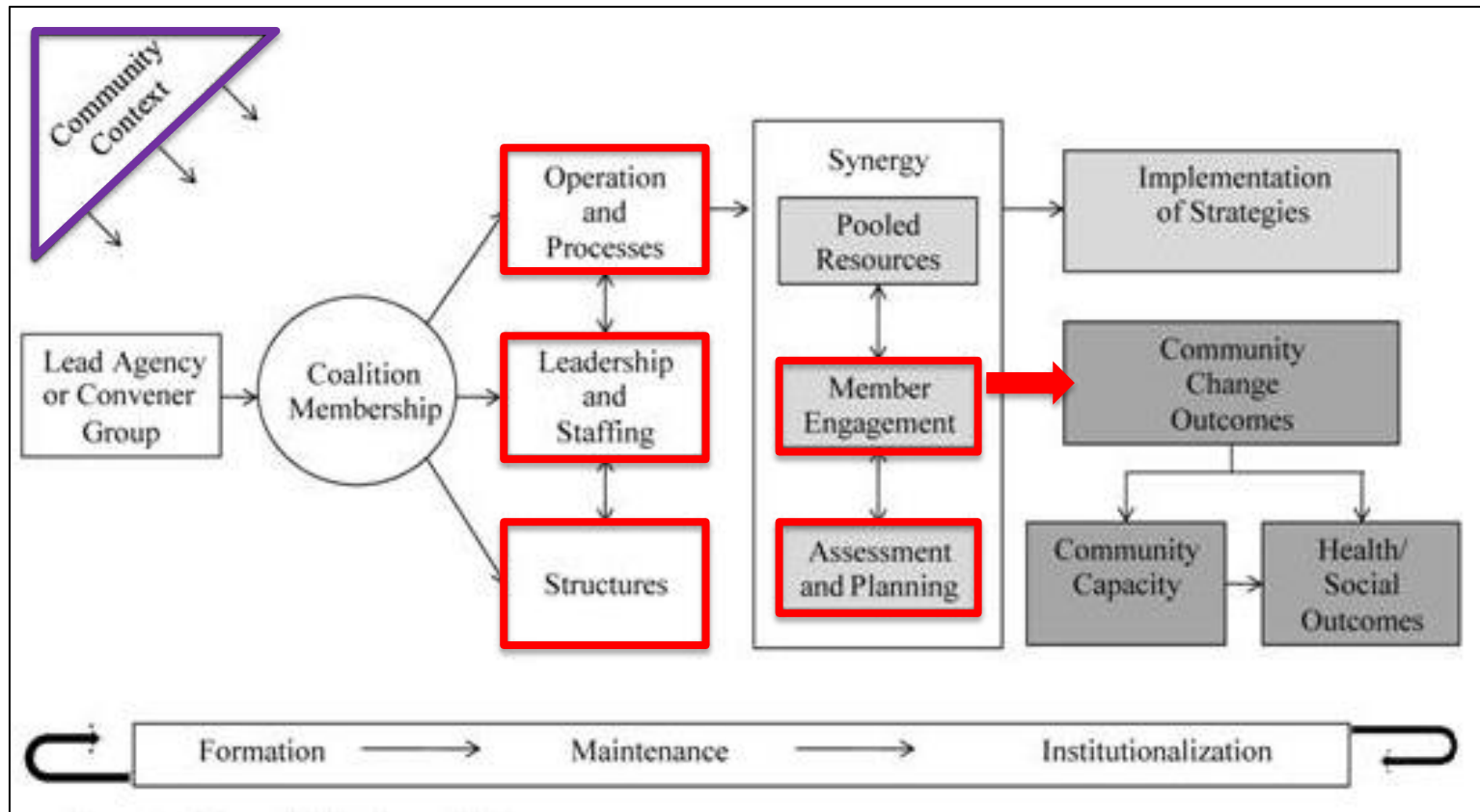
CEnR



w/o Community Coach



- Mission strategy/action plan

Alignment with Coalition Theory





The data suggest that coalitions with a higher degree of partnership interaction may be more successful in addressing problems impacting their communities.

Image source: <http://www.tabornorthern.org/>

Experimental Strengths

- Temporal relation
- Plausibility
- Dose-response
- Consistent with published literature
- Rooted in coalition theory
- A variety of models
 - Funding only
 - Funding + Coach

Limitations

- Quasi-experimental
 - Selection bias
- Measurement tool
 - Validity
 - Recall bias
- Data collection procedures
 - Sampling bias
- Setting
 - Transfer bias
- Length

Future Research

- Findings from this study should be informative to researchers seeking to collaborate with community health coalitions
- Directions for future research include
 - Dose-response studies to determine ideal level of engagement
 - Is coaching a best practice?
 - Focus on varying degrees and types of collaboration
 - Longer duration
 - Reversibility studies

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Questions?

Public Health Field Experience Presentation



Preceptor: Rhonda Parmley, PhD LPC

Denver, Colorado

May – July, 2014

HealthKind



- 501(c)(3) non-profit organization
- Engage South Sudanese nationals living in the U.S. in an effort to bring sustainable, community-based and integrative health initiatives to their home country.
 - Health education
 - Health-worker education
 - Delivery of services

South Sudan



Map source: http://en.wikipedia.org/wiki/South_Sudan

- Maternal mortality: 2,054/100,000 pregnancies¹
- Infant mortality: 64/1,000 live births²
- Under-five mortality: 99/1,000 children²
- 90% of the world's guinea-worm disease burden²
- 2014 cholera outbreak³
- 25% of population has access to health care⁴
 - NGOs responsible for up to 80% of health services²
- Level 3 humanitarian emergency³

What does rural Kansas have in common with South Sudan?



image source: <http://www.ruralhealthaustralia.gov.au/>

- Lack of access to appropriate health programs
- Hard-to-reach demographics
- Complex health problems
- Lack of sustainable health approaches



Mission:

“We partner with local communities to develop and implement sustainable, integrated health care programs in the developing world. We collaborate to develop local citizens’ capacity to build, staff, and maintain health care programs and services that meet their unique and self-defined needs”.

Scope of Work

- Funding
 - Grant Applications
 - Fundraising
- Program support
- Networking
 - “Cross-pollination”



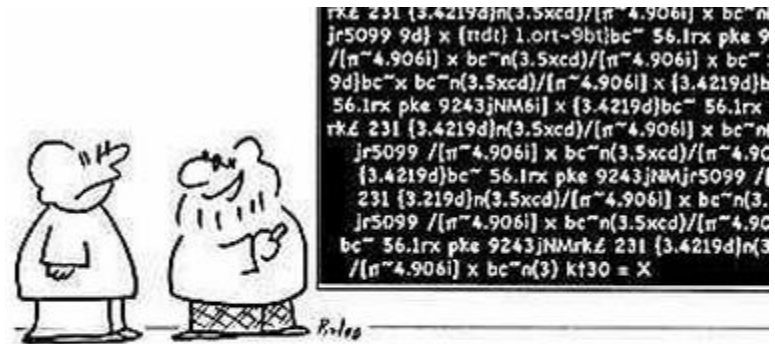
Image property of HealthKind

Learning Objectives

- Learn how to implement and manage novel health programs in a global setting
- Develop materials for global health advocacy
- To better understand barriers facing global health practice in a non-profit setting

Activities

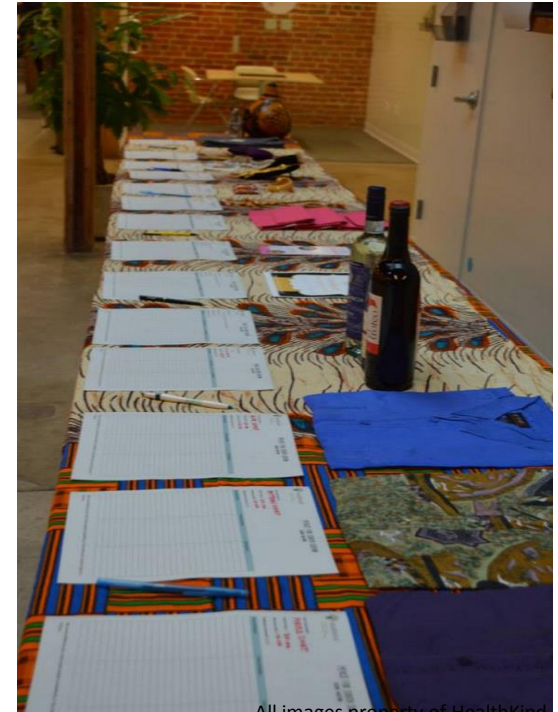
- Grant Applications
 - Chatlos Foundation
 - USAID Office of Maternal and Child Health: Emerging Priorities in Reproductive, Maternal and Newborn Health
 - Developed evidence-based maternal health intervention rooted in community
 - Grand Challenges Explorations Grant (Gates Foundation)



"It's a foolproof formula for writing grant applications."

Activities

Peace for South Sudan Fundraising Dinner and Silent Auction



All images property of HealthKind

Activities



All images property of HealthKind

- Community Engagement
 - Program support
 - *Women Cry for Peace and Life* group gatherings
 - Enhance HealthKind's "reach"
 - Social media
 - Mass communication
 - Advertising
 - Networking
 - Community presence
 - Event attendance
 - Executive Summary

Lessons Learned

- Even with a strong foundation in public health, it takes a great deal of energy and resources to keep non-profit organizations viable.
 - Whole-picture of non-profit work, rather than a snapshot of an already well-established organization

Conclusion

- When researchers and healthcare providers partner with stakeholders who care most about a problem, they will be better prepared to address these issues as a united force.



Questions?

Alignment with public health core competencies

Competency	Thesis/Field Experience Exposure
Biostatistics	<ul style="list-style-type: none">• Interpreted statistical methods in published literature• Utilized community-level vital statistics, records, and public health characteristics from rural Kansas and South Sudan• Aggregated, analyzed, and interpreted quantitative data related to thesis research
Environmental Health Sciences	<ul style="list-style-type: none">• Developed health interventions specific to unique environmental settings: potable water, sanitation methods, internally displaced persons, contaminated food• Explored environmental health risk as it relates to rural health indicators, specifically in childhood obesity
Epidemiology	<ul style="list-style-type: none">• Interpreted epidemiologic data from rural Kansas and South Sudan – prevalence, mortality• Evaluated literature based on epidemiologic principles• Conceptualized the dissemination of epidemiologic data• Evaluated my own research
Health Services Administration	<ul style="list-style-type: none">• Focused on increasing access to care in rural Kansas and South Sudan
Social and Behavioral Sciences	<ul style="list-style-type: none">• Accounted for social and cultural elements of health status in the development of health interventions• Utilized theoretical models: Social Ecological Model (Ecological Model for Childhood Overweight), Community Coalition Action Theory

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Research and Extension