

***PHSSR Research-In-Progress Series:***

***Bridging Health and Health Care***

***Thursday, June 18, 2015***

***1-2 pm ET/ 12noon-1pm CT***

***Injury-Related Infant Mortality among  
Vulnerable Populations: The Role of Public  
Health, Primary Care & Policy***

***To download today's presentation & speaker bios, see the 'Resources' box  
in the top right corner of the screen.***

***PHSSR NATIONAL COORDINATING CENTER AT THE UNIVERSITY OF KENTUCKY COLLEGE OF PUBLIC HEALTH***

# Agenda

**Welcome:** Angie Carman, DrPH, Assistant Professor, Health Management & Policy, University of Kentucky College of Public Health

***“Injury-Related Infant Mortality among Vulnerable Populations:  
The Role of Public Health, Primary Care & Policy”***

**Presenter:** Sharla Smith, MPH, PhD, Dep’t. of Preventive Medicine and Public Health, University of Kansas School of Medicine-Wichita

**Commentary:** Mary E. Aitken, MD, MPH, Dep’t. of Pediatrics, UAMS College of Medicine and Director, Injury Prevention Center, Arkansas Children’s Hospital

**Xi Zhu, MS, PhD,** Dep’t. of Health Management and Policy University of Iowa College of Public Health

**Zenobia Harris, BSN, MPH, DNP,** Central Region Director, Arkansas Dep’t. of Health

**Questions and Discussion**

# Presenter



**Sharla Smith, MPH, PhD**

Assistant Professor

Preventive Medicine and Public  
Health Department

University of Kansas School of  
Medicine–Wichita

*Post-doctoral Scholar in Public Health  
Delivery, 2014 PHSSR Award*

# Injury-Related Infant Mortality among Vulnerable Populations: The role of public health, primary care, & policy

PUBLIC HEALTH



PRIMARY  
CARE

POLICY

Sharla Smith, PhD, MPH  
Preventive Medicine and Public  
Health  
University of Kansas School of  
Medicine-Wichita

# Outline

- Significance
- Public health delivery systems
- The role of primary care and policy
- Frameworks
- Social network analysis
- Methods
- Preliminary findings
- Conclusions
- Next steps



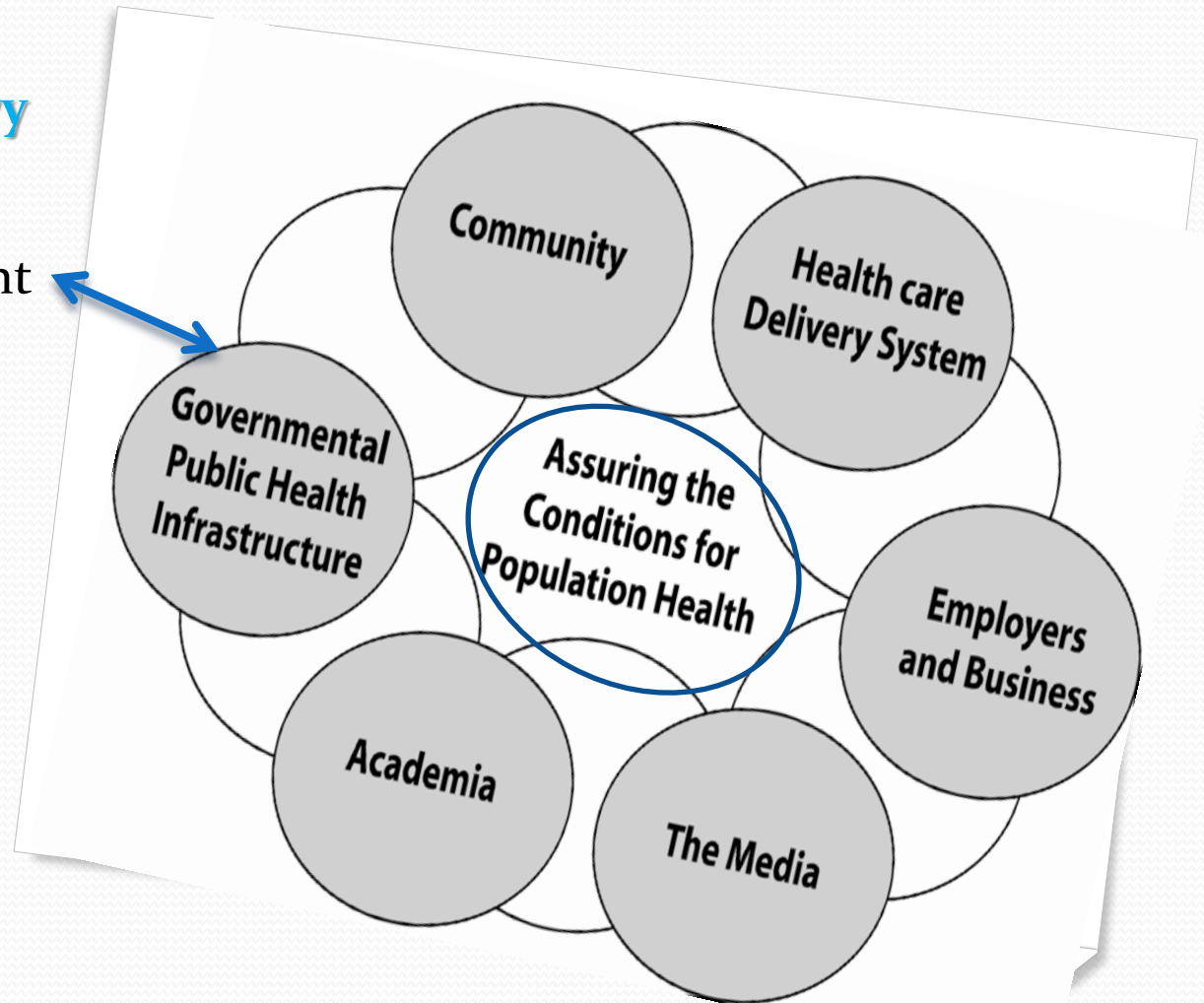
# Significance

- Unintentional injury- 5th leading cause of infant mortality
- In 2010, the US unintentional injuries mortality rate for infants was 3.1 per 1,000 live births
- The most common cause of injury-related infant mortality include:
  - suffocation
  - motor vehicle crashes
  - drowning
  - fire/burns
  - poisoning



## Public Health –Primary Care Delivery Systems

- local health department
- physician practices
- hospitals
- community health centers

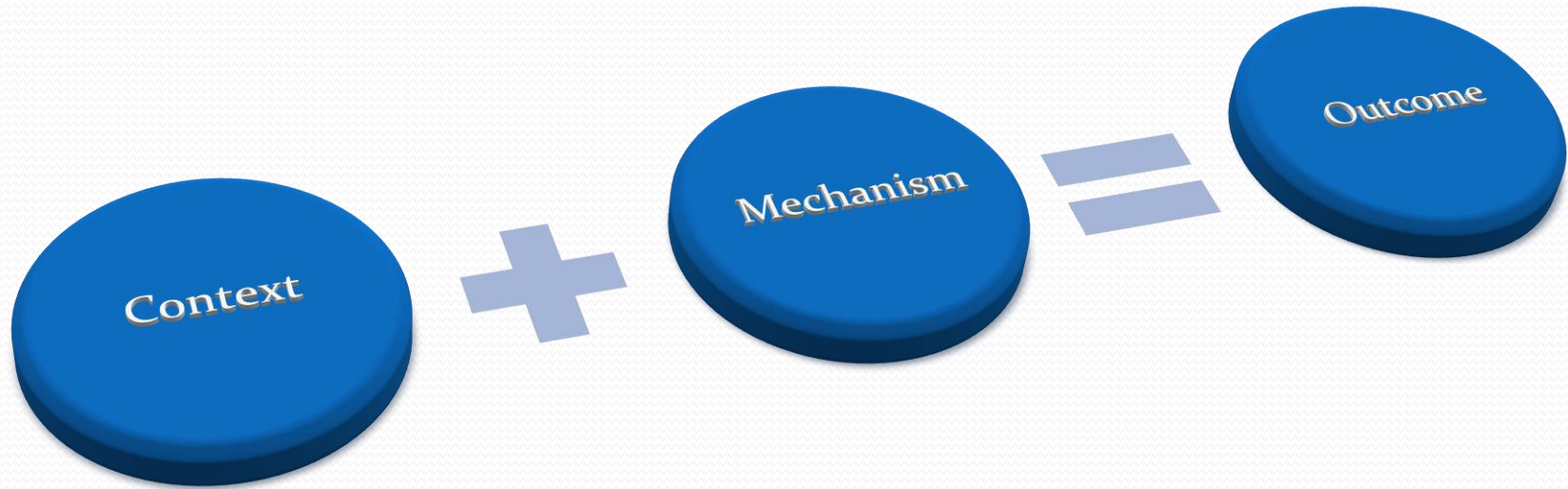


# The role of primary care and policy

- The integration of public health and primary care increases public health awareness.
- Injury prevention efforts work best when supported by well-informed policy solutions.
- Policy makers benefit from public health research and the support of primary care providers.



# Fundamental empirical questions



- Which programs, intervention, and policies (mechanisms)
- Work best (outcomes)
- In which community settings (contexts)
- And Why (causal pathways, interactions)?

# Social Network Analysis

- Social network analysis:
  - *nodes* (represent organizations)
  - *ties* (represent relationships between organizations)
- Two key measures of SNA:
  - Density
  - Centralization

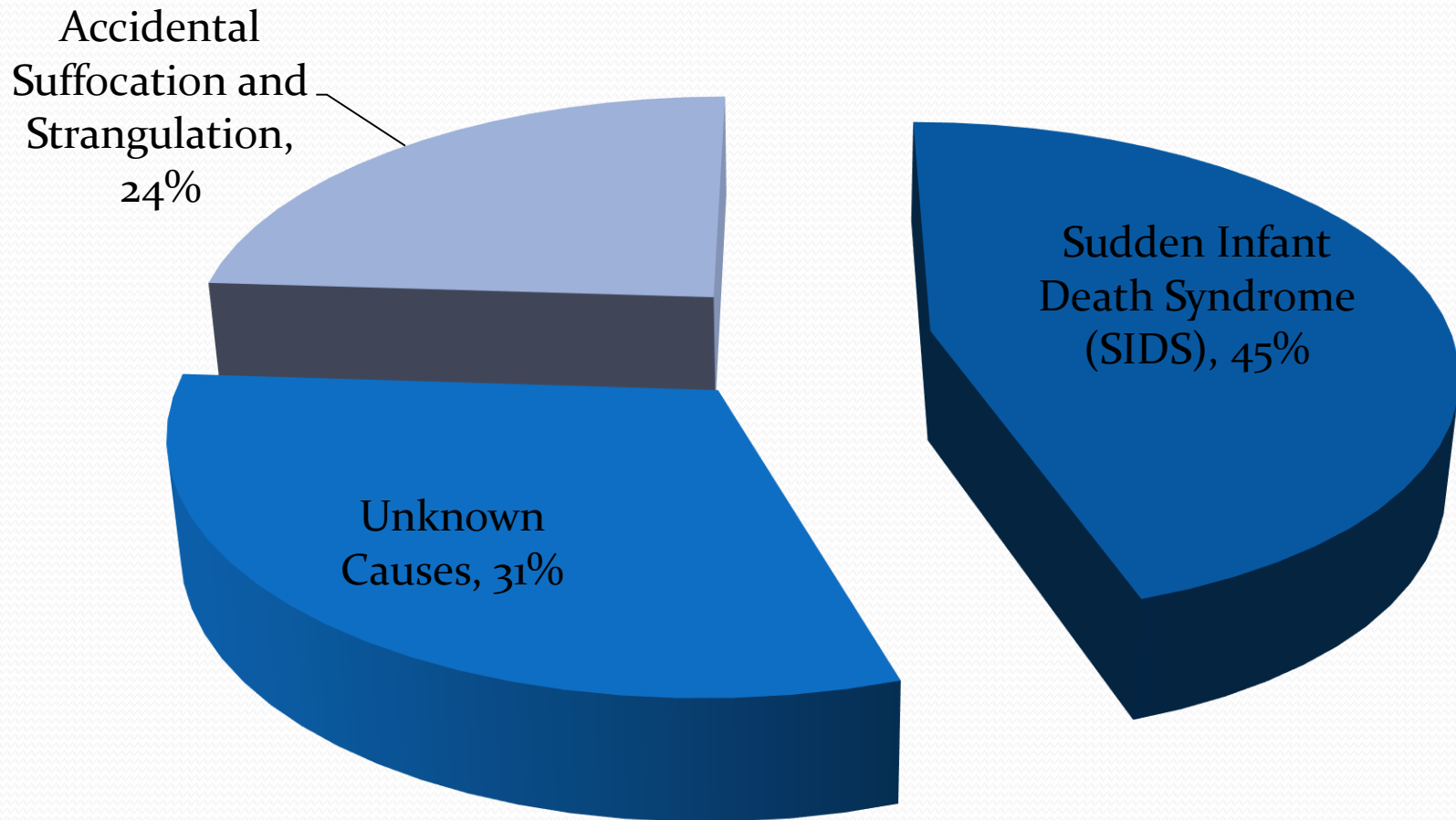
# Approach

- The integration of primary care and public health may:
  - enhance the capacity of both sectors to carry out their respective missions
  - create links with other stakeholders, policy makers and organizations

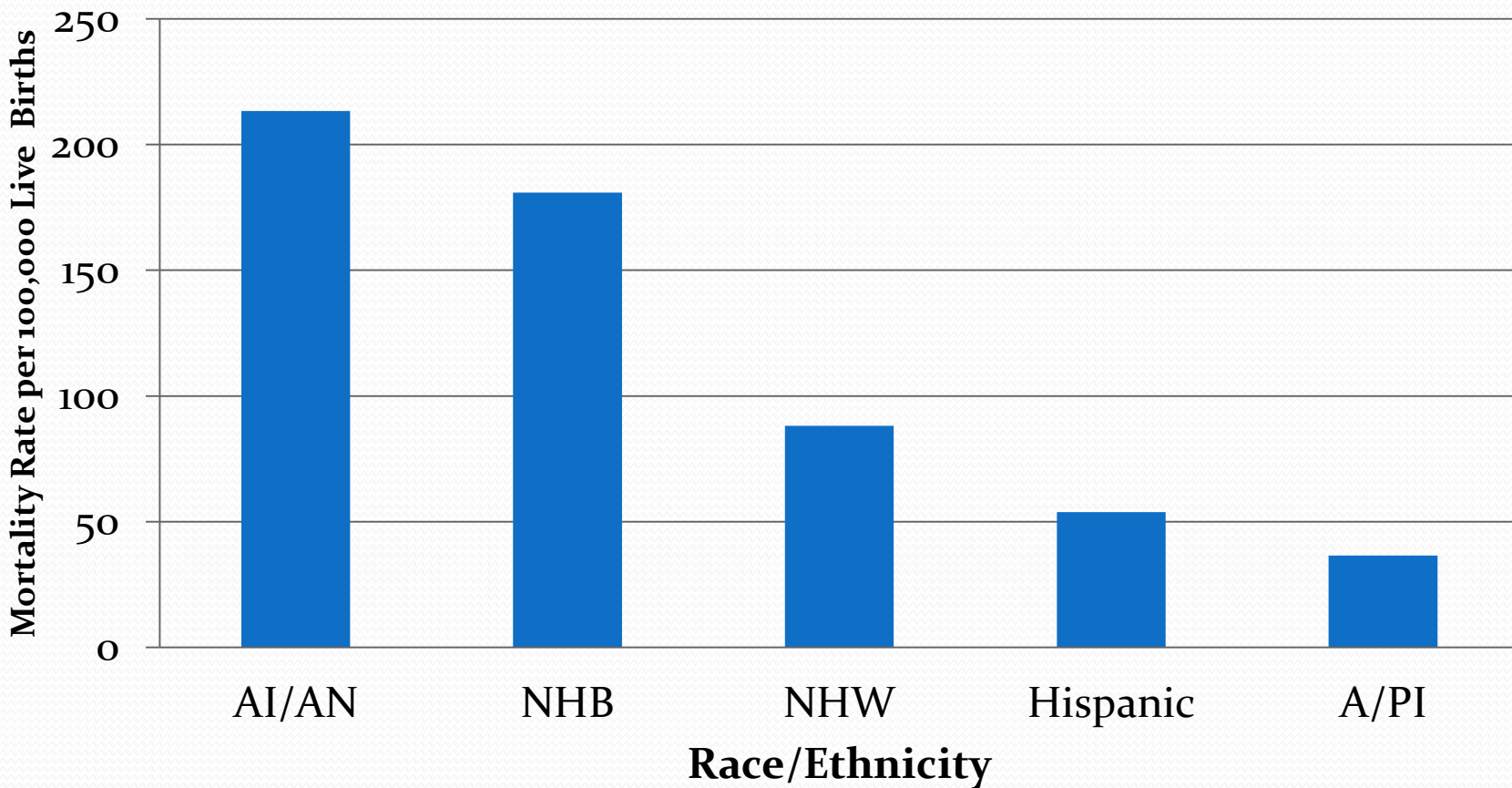


# Injury Related Infant Mortality in the United States and Arkansas

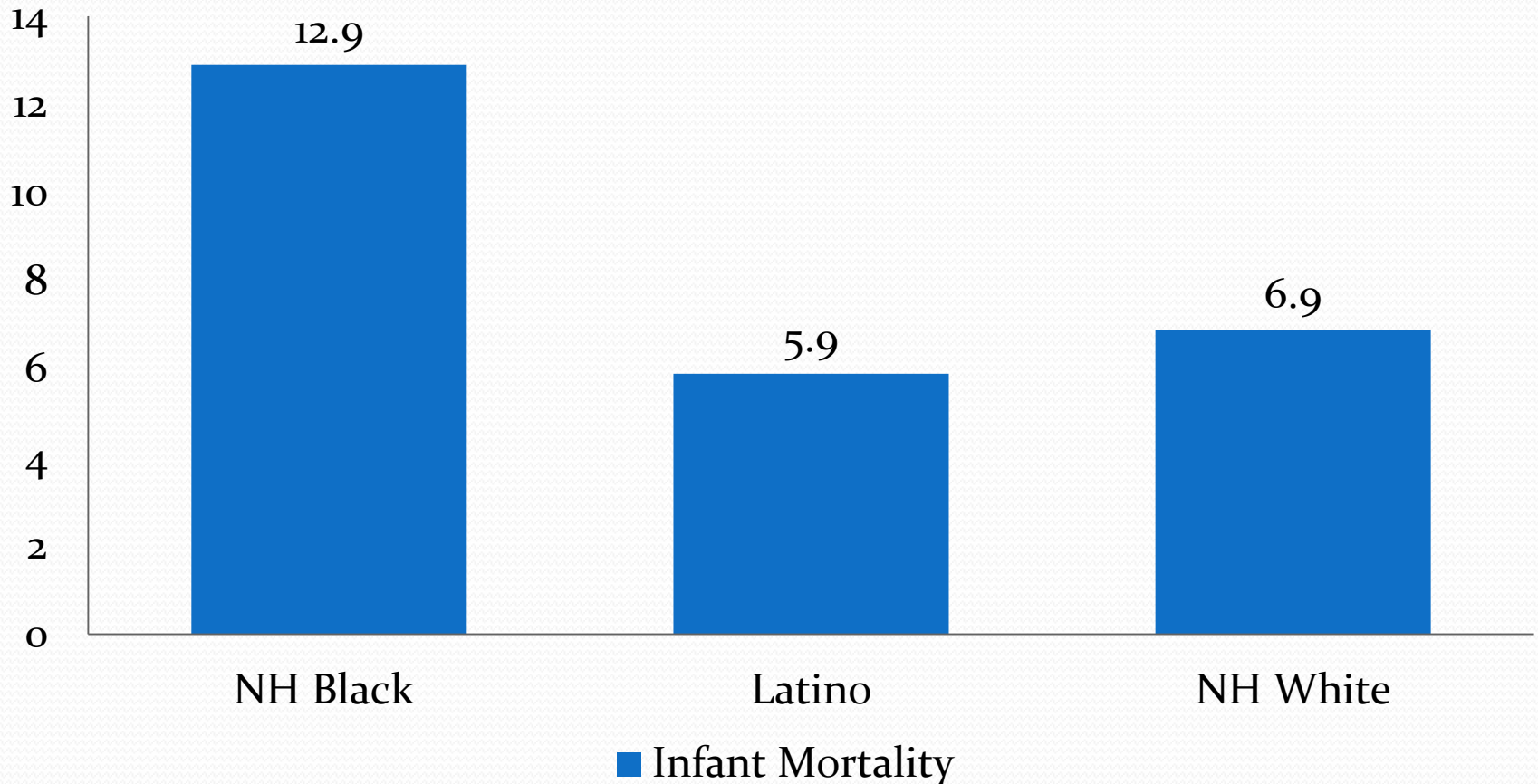
# 2013 Sudden Unexpected Infant Death



# Sudden Unexpected Infant Death, 2008-2012

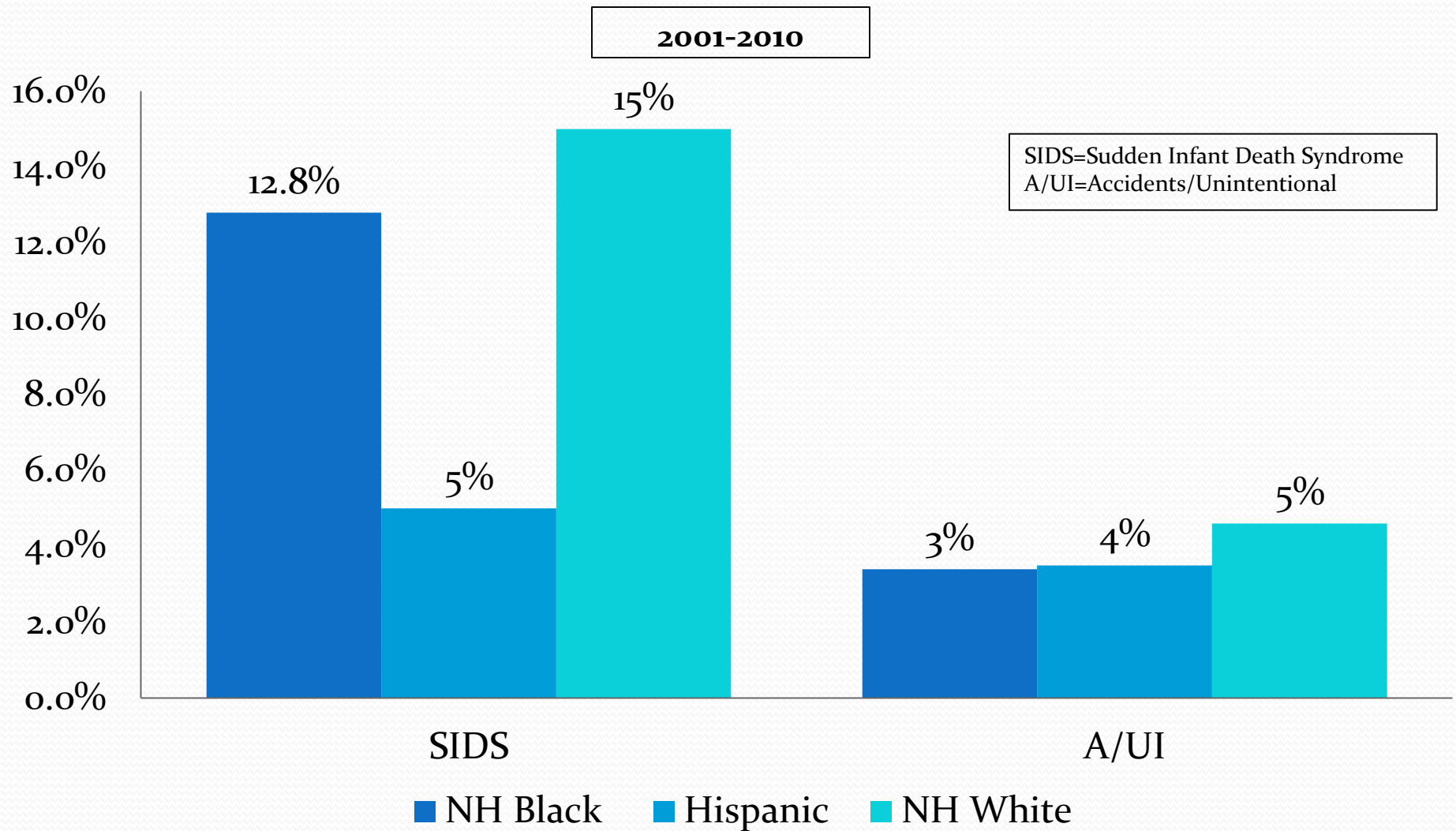


# Racial Disparities in Infant Mortality in Arkansas



\*Rates are per 1,000 live births  
Source: Arkansas Department of Health

# Leading Causes of Infant Mortality in Arkansas





# Goals

- To provide a more in-depth understanding of public health, primary care, and policy partnerships.
- To provide an understanding of how such partnerships are associated with injury-related infant mortality among vulnerable populations.

# Data

- National Longitudinal Study of Public Health Agencies (NLSPHA) survey data (2006 and 2012) coupled with NACCHO national public health agency profile (2008 and 2013), and Area Resource File (2006 and 2013).
- Interview data from the 2014 Arkansas Injury Prevention Partnerships study.

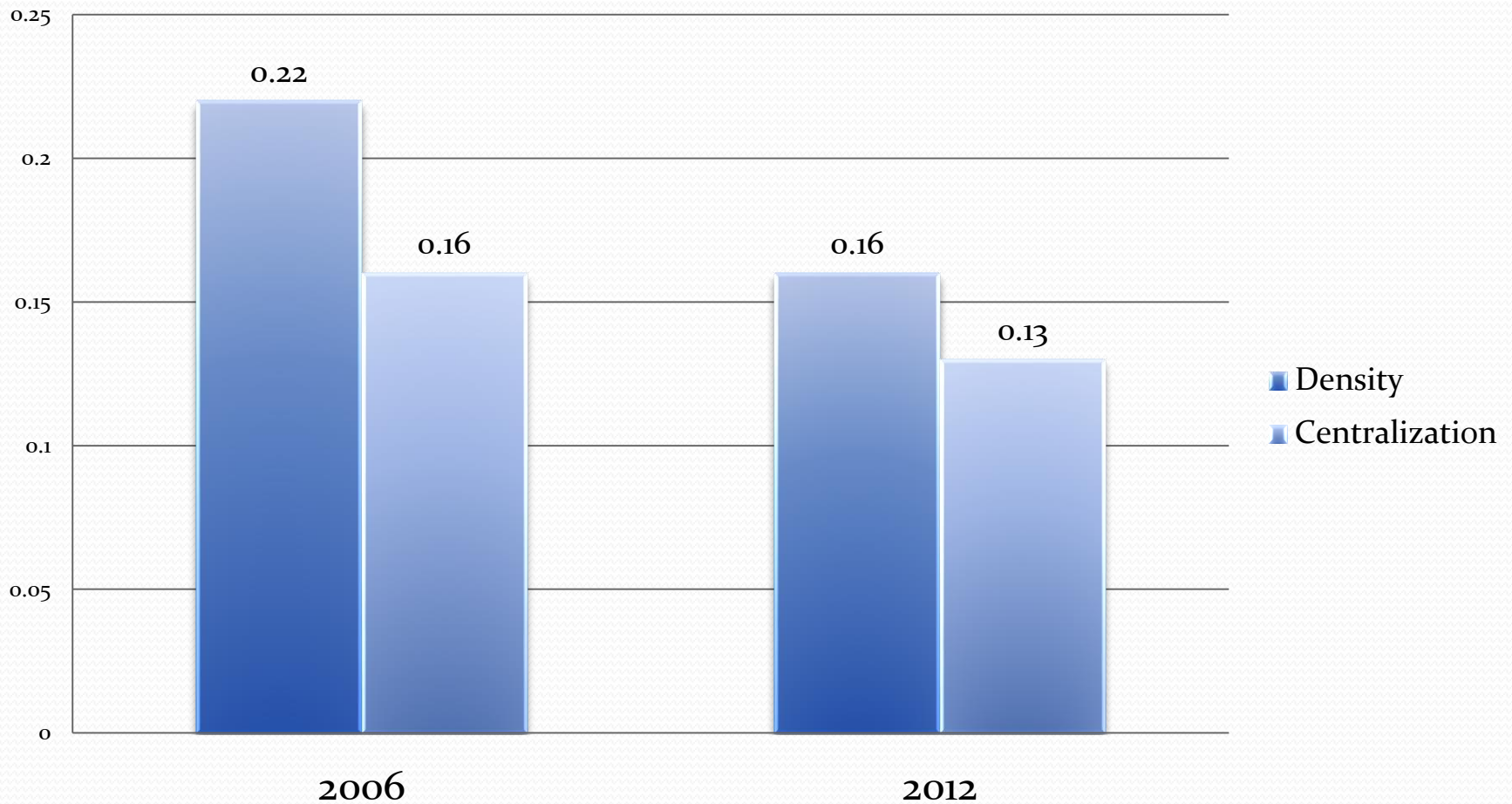


# **Findings from the NLSPHA**

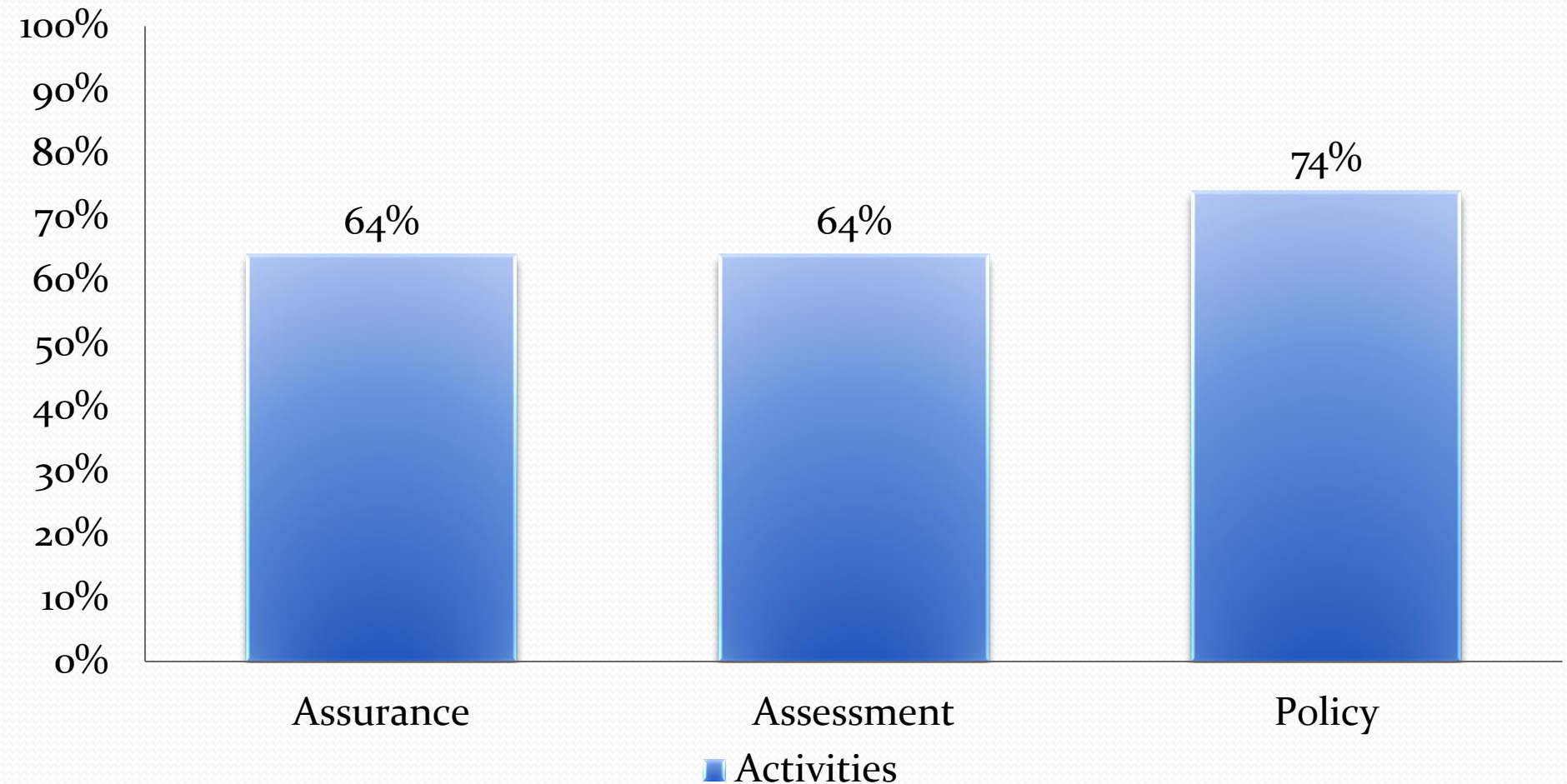
# Public Health-Primary Care Delivery Systems

Type of Organization	2006(232)	Difference (2006-2012)	2012(239)
	Mean		Mean
Community Health Clinics	0.29	-2	0.27
Hospital	0.41	-2	0.39
Physician Agency	0.24	-5	0.19

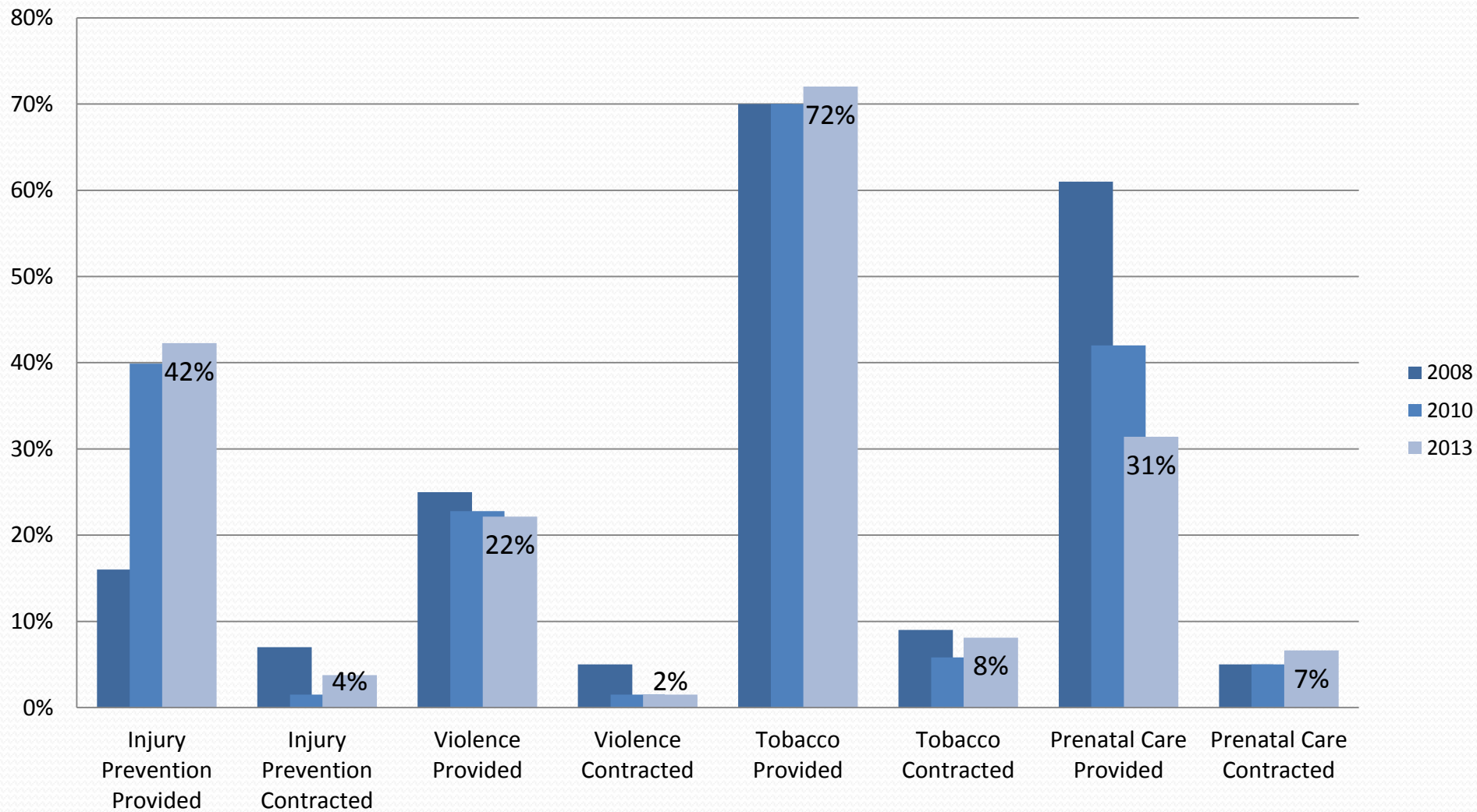
# Public Health and Primary Care



# Public Health and Primary Care Activities Performed



# Preventive Services for Injuries





# **2014 Injury Prevention Partnership Study Policy Perspective**



# The Role of Policy: Findings from Arkansas

- The study population includes 12 organizations.
- Participating organizations indicated whether or not they work with organizations such as:
  - community health clinics
  - policy organizations
  - public health agencies
- Partnership is defined in this study as an informal long or short-term relationship between two organizations.

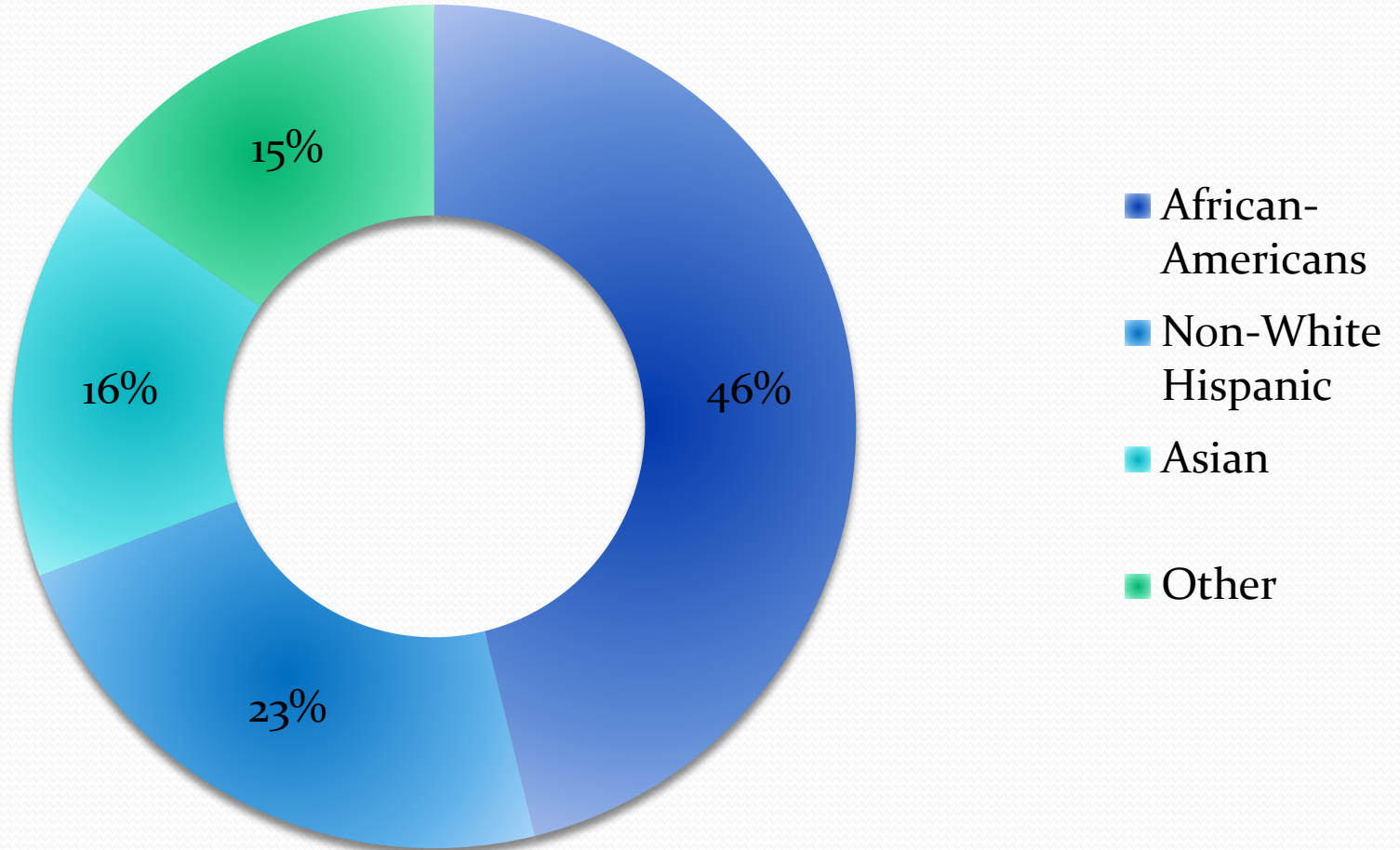
# Methods

- A cross sectional survey was administered to identify policy makers' awareness of injury-related infant deaths and their collaborative efforts with public health and primary care agencies to address injury related infant mortality.
- Interview data were coded to identify themes and assess patterns of variation between clusters.
- Network analysis is conducted to discover the relationships between a set of policy, public health, and primary care.

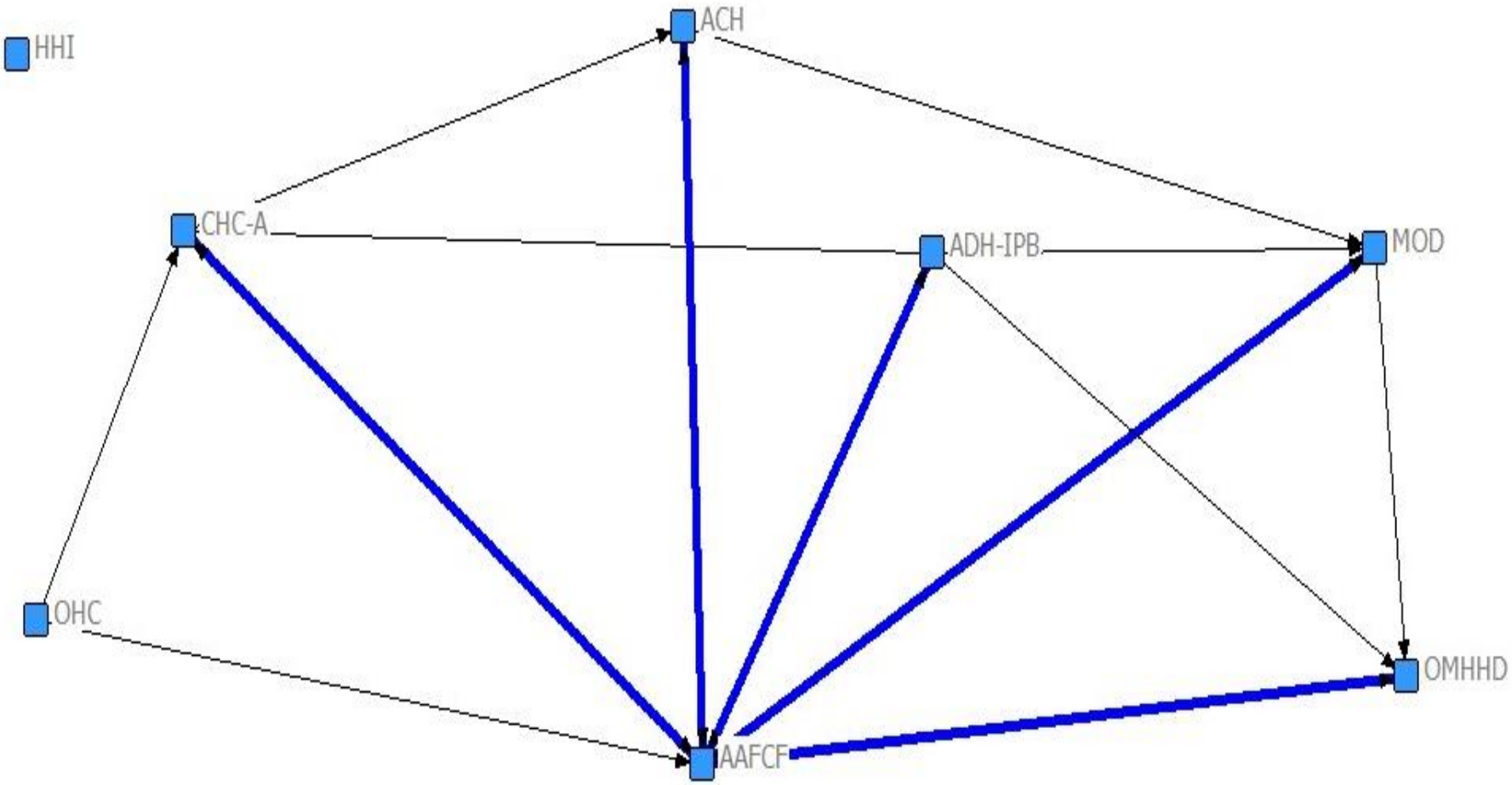


# **Findings from the Interview**

# Characterizing the Populations Represented

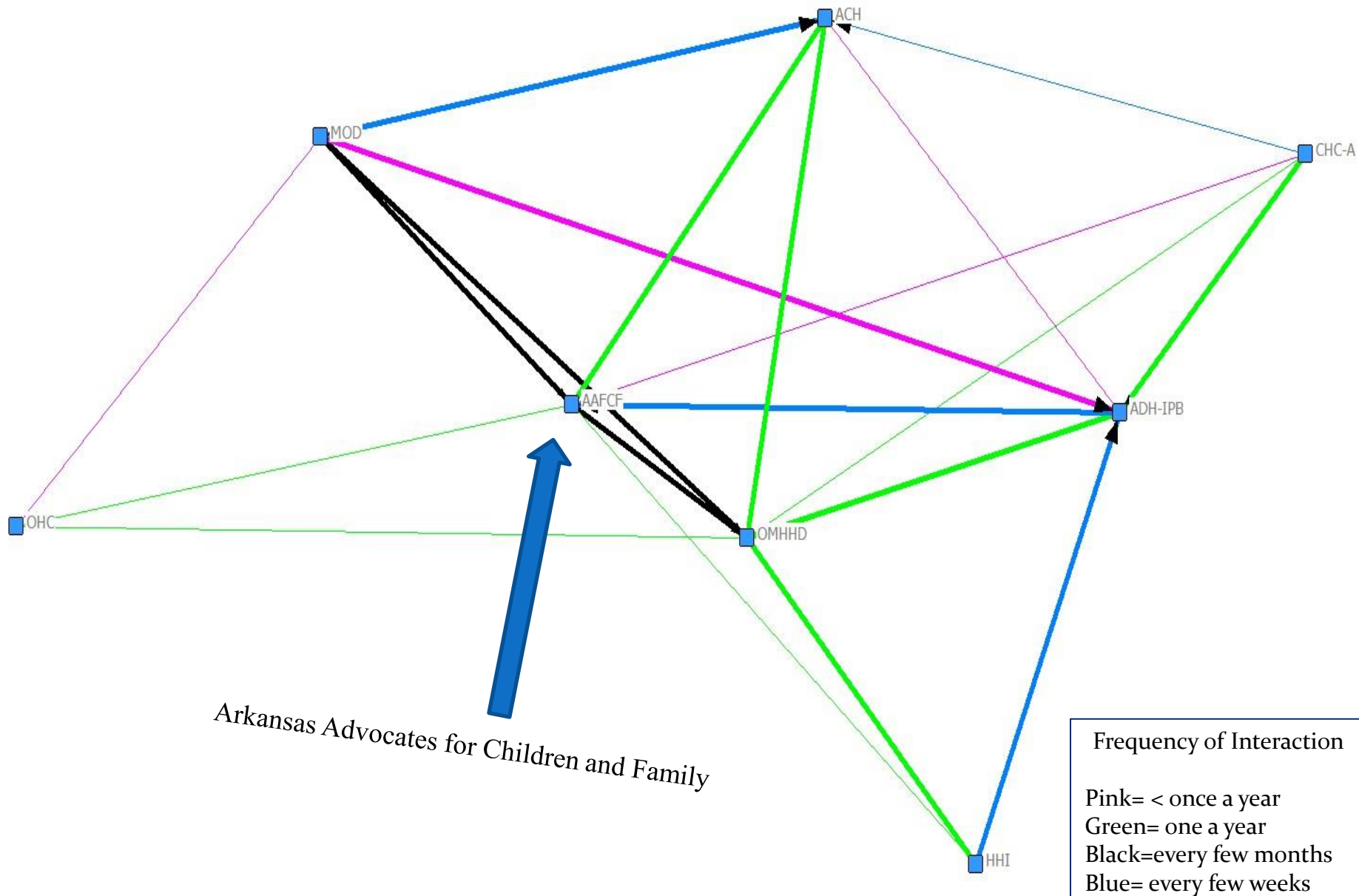


# Advocacy and Policy Network



blue line= reciprocal relationship

# Frequency of Interactions



# Policy Organizations: Additional Findings

- Activities for injury related infant mortality are:
  - reporting and monitoring data
  - lobbying for legislation
  - providing resources to community health clinics
- Advocate for increasing access to health coverage and care and health behavior work for pregnant women.
- The most effective services are those provided to immigrant families.
- The populations at greater risk for are African Americans and single parent households.
- The most effective preventive strategies are increased education and awareness.

# Conclusions

- LHDs provide a limit number of injury prevention services highlighting the importance of collaborative efforts.
- Policy organizations are very instrumental in supporting legislation to improve maternal and infant health.
- Policy organizations distribute and share resources with many organizations to strengthen efforts to improve population health.



# Limitations

- Many participating organizations have experienced a change in leadership
- New Initiatives are underway
- All interviews have not been completed
- Additional data analysis are required

# Policy and Practice Implications

## Policy Implications

- More effort may also be needed to maximize the collaborative potential for the partnerships
- Establish mechanism to overcome challenges faced in sustaining effective partnerships.

## Practice Implications

- It is critical to establish a shared understanding of the nature, scope, and context of injury related infant mortality within each community.
- It is vital to develop partnerships with primary care agencies and policy organizations to address injury related infant mortality.

# Next Steps

- Complete Interviews (in progress) and Include data from all interviews
- Expand on quantitative visualization of public health, primary care, and policy networks.
- Examine the association of public health, primary care, and policy and injury-related infant mortality.

# Commentary



**Mary E. Aitken, MD, MPH**

Professor, Pediatrics, UAMS College of Medicine  
Director, [Injury Prevention Center at the Arkansas Children's Hospital](#)



**Xi Zhu, MS, PhD**

Assistant Professor, [Health Management & Policy](#)  
University of Iowa College of Public Health



**Zenobia Harris, BSN, MPH, DNP**

Central Region Director, [Arkansas Department of Health](#)  
Arkansas State Coordinator, Birthing Project USA

## Questions and Discussion

## Future Webinars & Archives available at:

<http://www.publichealthsystems.org/phssr-research-progress-webinars>

### Upcoming Webinars – July 2015

Wednesday, July 1 (12-1pm ET)

#### **THE AFFORDABLE CARE ACT AND CHILDHOOD IMMUNIZATION DELIVERY IN RURAL COMMUNITIES**

Van Do-Reynoso, MPH, PhD Candidate, U. California-Merced *(PPS-PHD Award)*

Wednesday, July 8 (12-1pm ET)

#### **NATIONAL EVALUATION OF LEADERSHIP STYLES AND OUTCOMES IN LOCAL HEALTH DEPARTMENTS**

Laura Cassidy, MS, PhD, Medical College of Wisconsin *(RWJF PHS3 award)*

## Upcoming Webinars – August 2015

Wednesday, August 5 (12-1pm ET)

### **APPLYING FAILURE MODES & EFFECTS ANALYSIS TO PUBLIC HEALTH:**

#### **BREATHE EASY AT HOME PROGRAMS**

Megan Sandel, MD, MPH, FAAP, Boston Medical Center

Margaret Reid, RN, MPA, Director, Healthy Homes and Community Supports,  
Boston Public Health Commission *(RWJF PHS3 award)*

Wednesday, August 12 (12-1pm ET)

### **BUILDING ACCESS & UNDERSTANDING OF LAW IN PUBLIC HEALTH PRACTICE IN NEBRASKA**

Jennifer K. Ibrahim, PhD, MPH, Associate Dean for Academic Affairs

College of Public Health, Temple University *(RWJF PHS3 award)*

Thursday, August 20 (1-2pm ET)

### **PUBLIC HEALTH AND PRIMARY CARE INTEGRATION THROUGH ENHANCED PUBLIC HEALTH INFORMATION TECHNOLOGY (PHIT) MATURITY: A CASE FOR BEHAVIORAL HEALTH**

Ritu Agarwal, PhD, and Kenyon Crowley, MBA, MSIS, Ctr. for Health Information  
& Decision Systems, School of Business, U. of Maryland *(RWJF PHS3 award)*

# Thank you for participating in today's webinar!

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