

Higher ground:
Community-level response
to a natural disaster and
long-term impacts on
health and identity in rural
North Carolina

Anne M. Morris, Jiang Li, Arin Ahlum Hanson, Jennifer M. Wieland, Katie M. Keating, Ellie M. Morris, Melvin R. Muhammad, Taro Knight Department of Health Behavior and Health Education













Presentation Overview

- Learning Objectives
- Background
- Method
- Results
- Recommendations













Learning Objectives



Learning Objectives

- Explore the ways the African American communities of Queenstown and Ramsville responded to flooding after a hurricane.
- Understand the communities' efforts to rebuild and reclaim their identities.
- Consider the various health impacts of the flood.
- Provide recommendations to the communities for ways to further improve the quality of life for African Americans in Ramsville and Queenstown.











Background



The Communities

- Queenstown and Ramsville, North Carolina are located in eastern North Carolina and separated by a river.
- African Americans comprise 98% of Queenstown's and 39% of Ramsville's populations.
- Per capita income for African Americans residing in the county is \$11,640 compared to \$14,435 countywide, \$20,307 statewide, and \$21,587 nationwide for all residents.





The Flood

- In 1999, flooding following a severe hurricane decimated both towns.
- The flood destroyed all of Queenstown and over 40% of Ramsville.
- The flood had disproportionate impacts on African Americans in both towns, affecting the sense of community and identity that is so important in rural North Carolina.



Rebuilding

- Despite the fact that 6,500 Queenstown and Ramsville residents were displaced, residents received a great deal of support in the aftermath of the flood.
- Today, more than seven years later, the majority of homes have been rebuilt and long-term revitalization efforts continue.
- Some residents now refer to the flood as "a blessing" for the towns.











Method



Action-Oriented Community Diagnosis

- An Action-Oriented Community Diagnosis (AOCD) was conducted over a seven-month period, guided by two community preceptors.
- Three qualitative data collection methods were used:
 - Participant-observation field notes
 - Semi-structured interviews
 - Secondary data sources
- Data were analyzed using a transcript-based analysis approach to determine patterns of meaning related to community and identity.



Project Timeline

October – December 2006	Met with community members; reviewed secondary data and background information	
December 2006 – January 2007	Prepared and pre-tested interview guides; recruited interviewees	
January - March 2007	Interviewed community members and service providers	
March - April 2007	Analyzed interview transcripts	
March - May 2007	Organized a community forum and completed final report	



Interviewee Characteristics

	Community Members	Service Providers	
Town of Residence			
Queenstown	7	2	
Ramsville	17	9	
Other	0	7	
Race			
African American	20	15	
White	4	3	
Age			
21-40	4	2	
41-60	8	12	
61+	6	3	
Unknown	6	1	
Average Age	50.13	51.88	
Sex			
Male	13	9	
Female	11	9	
TOTAL	24	18	











Results



Flood Effects

- Interviewees indicated differences in flood impacts among areas within the communities based on a confluence of demographic factors.
- In discussions about flood effects, interviewees specifically mentioned the following:
 - High levels of stress (including PTSD)
 - Increase in chronic illness (stroke, hypertension)
 - Increase in negative health behaviors (drug use)
 - Cumulatively higher death rates (heart attacks)
 - Greater incidence of mental health issues





Community Strengths

A number of interviewees considered one of the communities' most important strengths to be the resilience of the towns and of the community members:

"The tradition of Queenstown—of being an incorporated black town and that—was shown in their choice to come back after the flood. There is something intangible about the historical significance of the town, and that seems to be a glue that...holds [people] together."

-Queenstown Service Provider



Community Challenges

While interviewees recognized the importance of community cohesion and identity within the African American communities of Ramsville and Queenstown, residents are still faced with the challenge of living in a flood plain:

"The river flooding...it's always at the back of peoples' minds. If there's another flood, the same thing will happen. How do you start over when everything you had is gone?"

-Ramsville Community Member







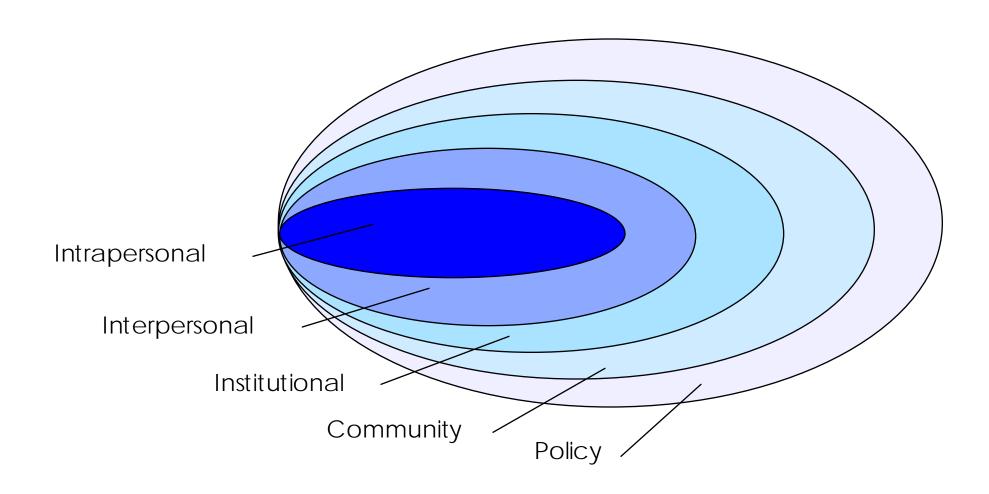




Recommendations



The Socio-Ecological Framework



Source: McLeroy, K.R., et al. (1988).



Points of Intervention

- Individual Level
 - Tailored individual emergency plans
- Interpersonal Level
 - Reinforced capacity of existing social networks to encourage personal disaster preparedness planning and offer social support during disasters
- Institutional
 - Strengthened capacity of places of worship to encourage personal disaster preparedness planning and offer tangible aid and assistance following disasters





Points of Intervention

- Community
 - Dissemination of up-to-date information on disaster preparedness planning and available resources
- Policy
 - Identification of vulnerable populations
 - Improvement of health services infrastructure, inclusive of mental health
 - Promotion of local governments' cooperation
 - Reinforcement of federal government coordination











Acknowledgements



This student project was made possible through the participation and cooperation of community members and service providers in Ramsville and Queenstown, NC. Additionally, the student researchers would like to thank our community preceptors, Melvin Muhammad and Taro Knight, Professor Geni Eng and the HBHE 741teaching team, and Professor Laura Linnan.













References



- Eng, E., Moore, K. S., Rhodes, S. D., Griffith, D. M., Allison, L., Shirah, K., & Mebane, E. (2005). Insiders and outsiders assess who is "the community": Participant observation, key informant interview, focus group interview, and community forum. In B. A. Israel, E. Eng, A. J. Schulz, & E. A. Parker (Eds.), Methods in community-based participatory research for health. San Francisco, CA: Jossey-Bass.
- Eng, E., & Blanchard, L. (1991). Action-oriented community diagnosis: A health education tool. *International Quarterly of Community Health Education*, 11, 93-110.
- Fleming, M. S. (2003). XXXX. Charleston, SC: Arcadia Publishing.
- Cain, J. D. (2000, Sept.). XXXX. Essence Magazine. Retrieved October 11, 2006, from http://www.findarticles.com/.
- Blue, V. E. (2000). XXXX. NC Crossroads, 4(3).
- XXXX County. (2006). Brief history. Retrieved February 26, 2007, from http://www.xxxxcounty.gov/.
- North Carolina Rural Economic Development Center. (2006). County profile for XXXX. Retrieved February 26, 2007, from http://www.ncruralcenter.org/.
- United States Census Bureau. (2001). 1997 economic census: Summary statistics for XXXX, NC 1997 NAICS basis. Retrieved on November 13, 2006, from http://www.census.gov/.



- Murphy, T. (2007, January 28). Jobless rate on decline in area. XXXX. Retrieved January 28, 2007, from http://www.xxxx.com.
- United States Department of Labor. (2007). Bureau of labor statistics: Local area unemployment statistics. Retrieved February 26, 2007, from http://www.bls.gov/lau/home.htm.
- The Employment Security Commission of North Carolina. (2007). Labor market information. Retrieved April 13, 2007, from http://www.ncesc.com/lmi/laborStats/laborStatMain.asp.
- McLeroy, K.R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. Health Education Quarterly, 15, 351-377.
- XXXX County. (2005, January 30). XXXX County emergency plan. Retrieved on October 28, 2007, from http://www.xxxxxcountync.gov/.
- Centers for Disease Control and Prevention. (2000). Morbidity and mortality associated with Hurricane XXXX – North Carolina, September – October 1999. MMWR, 49 (17), 369-372.
- Fried, B.J., Domino, M.E., & Shadle, J. (2005). Use of mental health services after Hurricane XXXX in North Carolina. *Psychiatric Services*, 56 (11), 1367-1373.



Research Team

Anne Morris
Jiang Li
Arin Ahlum Hanson
Jennifer Wieland
Katie Keating
Ellie Morris

mpanne@email.unc.edu
jiangli@email.unc.edu
arin@email.unc.edu
jwieland@email.unc.edu
kkeating@email.unc.edu
morrise@email.unc.edu