



Interactions of Formal and Informal Community Communications during Natural Disasters: Lessons from Hurricane Katrina



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Introduction

- Experience of the response to Hurricane Katrina indicated wide differences in communications between formal governmental systems and individual family social formations (Brodie et al., 2006; Elder, et al., 2007).
- Differences include communication on warning, transportation for evacuation, resource accesses and provision of help to reduce harm and support recovery (Brodie et al., 2006; Eisenman et al., 2007; Elder et al., 2007).
- How individuals and families perceive the usefulness or effectiveness of communications with various elements of the formal and informal systems is not well researched

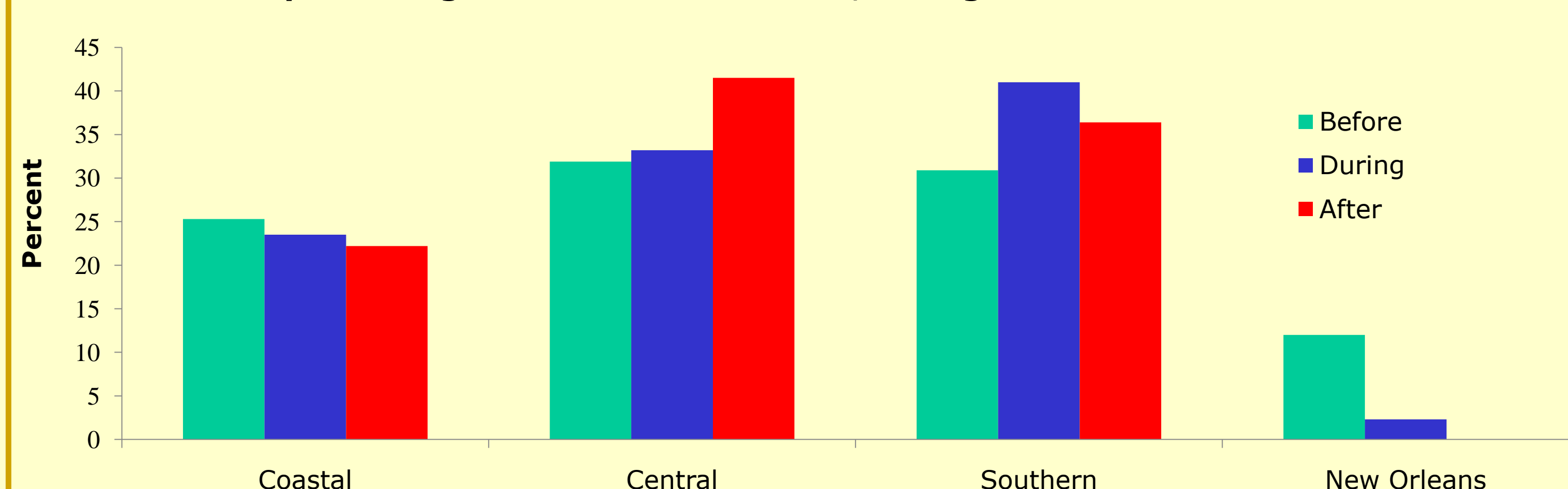
Definitions

- **Informal Communication Systems:** Family and social networks, using their own individual resources and networks to communicate with one another
- **Formal Communication Systems:** Organizational and governmental entities and the mass media communication systems

Purpose:

To assess the perceptions of Hurricane Katrina Survivors (HKS) regarding their communication with formal and informal systems.

Participant's Region of Residence before, during and after Hurricane Katrina



Methods

- Non probability, convenience sampling of 217 survivors of hurricane Katrina who have resided for at least six months before interview in coastal, southern or central Mississippi
- Recruitment implemented by working through the Community Advisory Board and Community Advocates, using a snowball approach
- Surveys distributed through trained Community Interviewers and Advocates
- Associations between communication points, utilization of information and help received were analyzed using SPSS™ 17.0

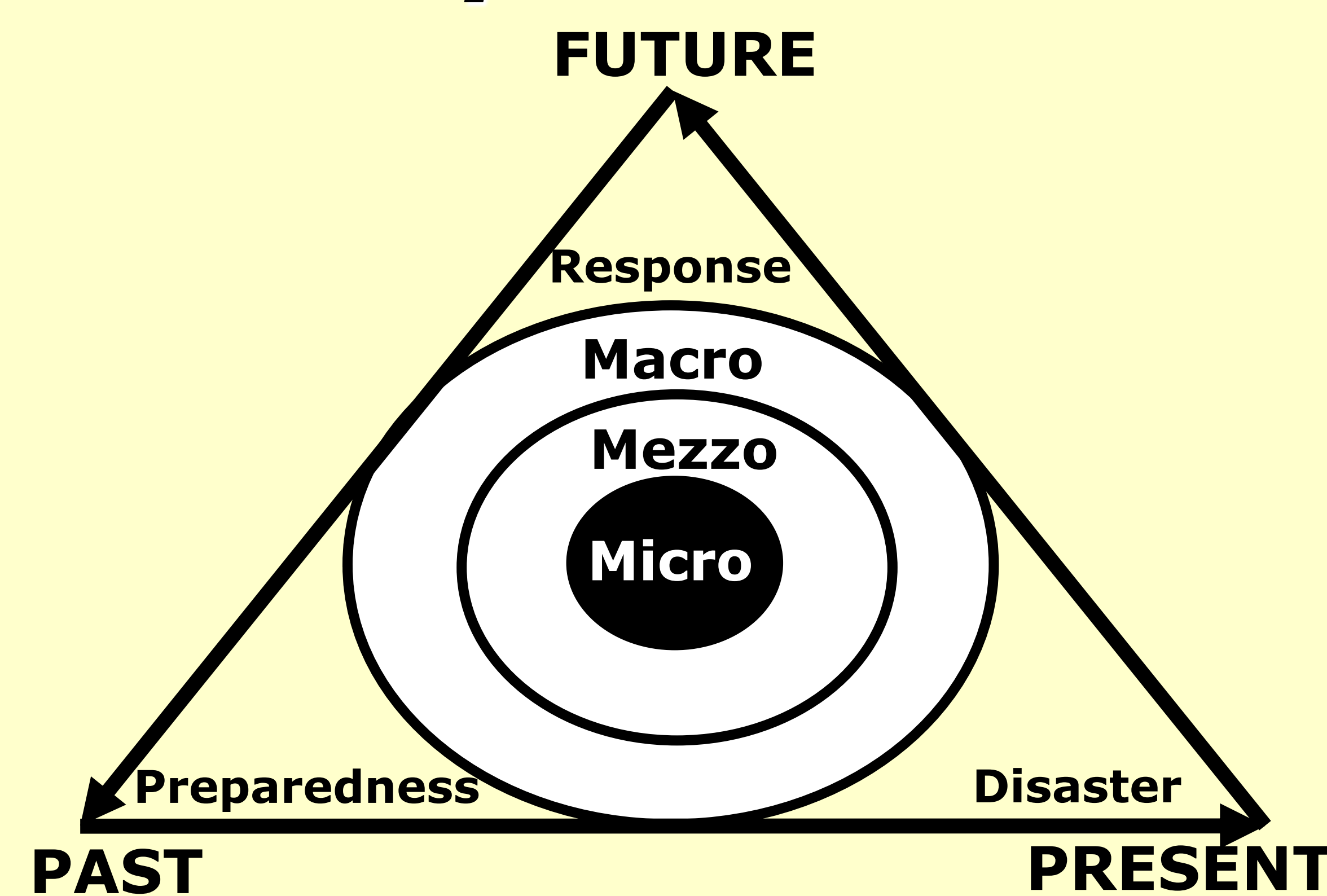
Tool and Data Collection

- Communication networks, Contact activities
- Trust and Importance of Information and Source
- Demographics
- Self- and Interviewer-Administered Questionnaire (when participant could not read or write, or when not English proficient)

Data Analyses

- Descriptive statistics
- Independent T-test

Conceptual Model[#]



The K-Model for Disaster Preparedness, Response and Recovery

Results:

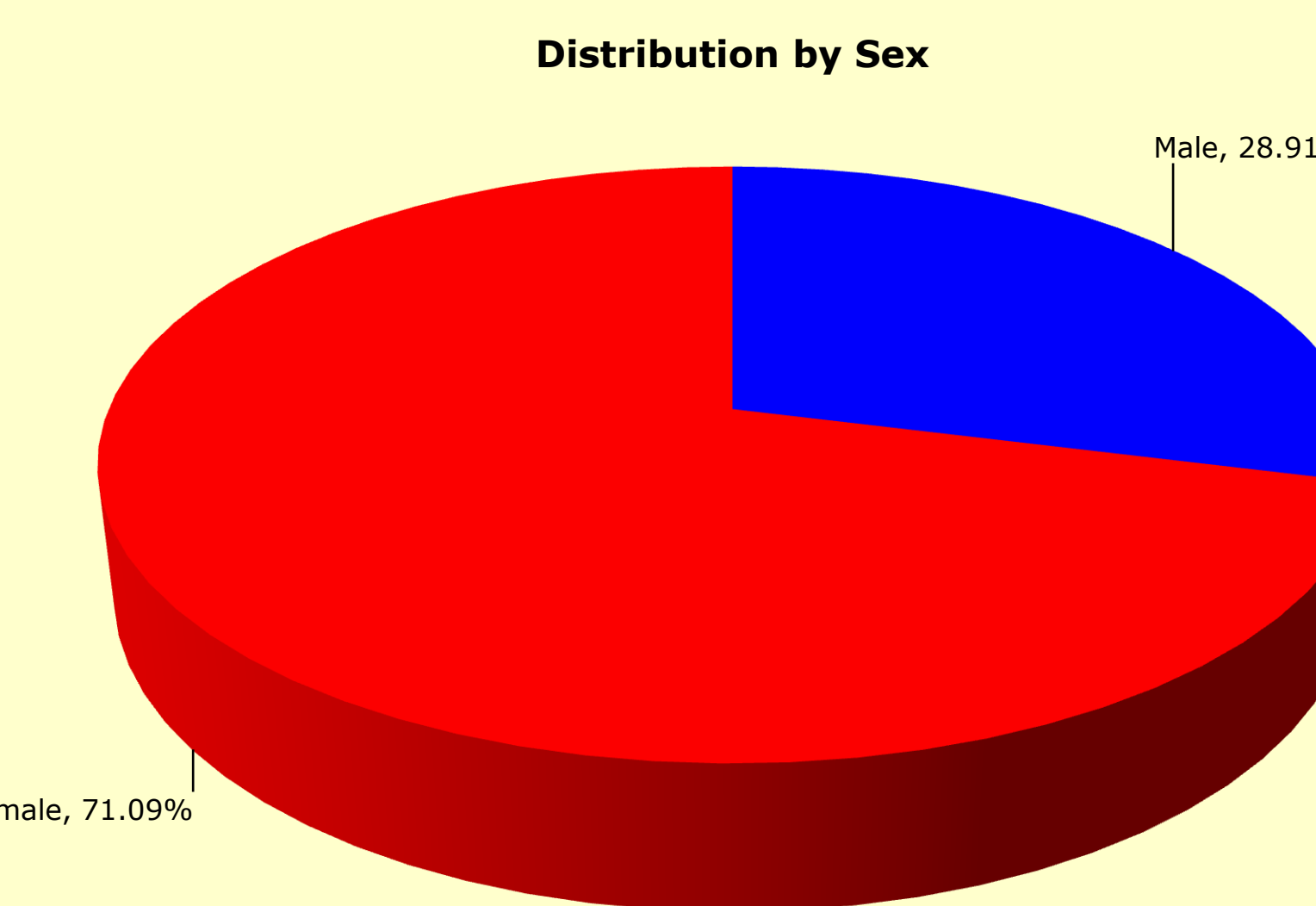
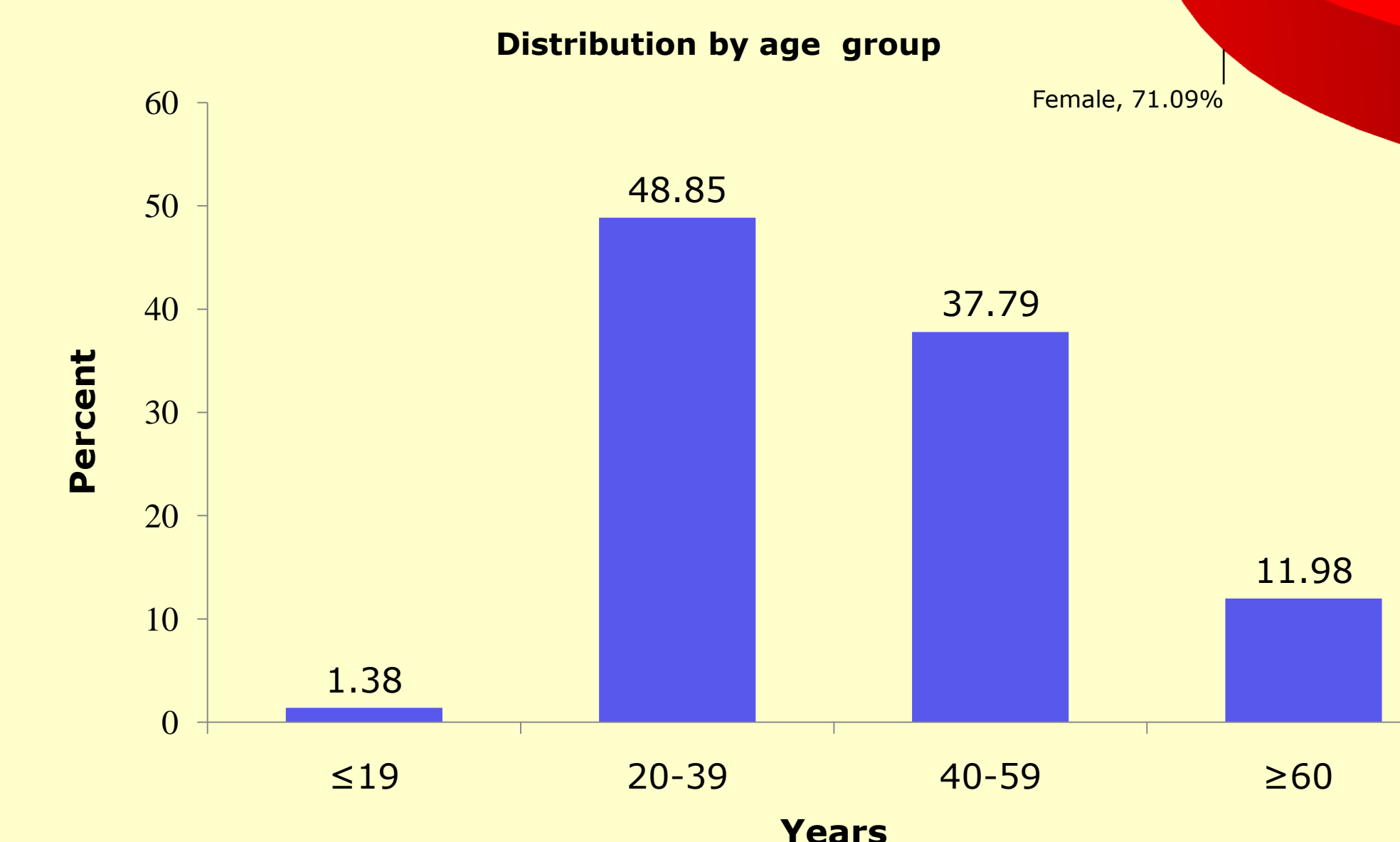
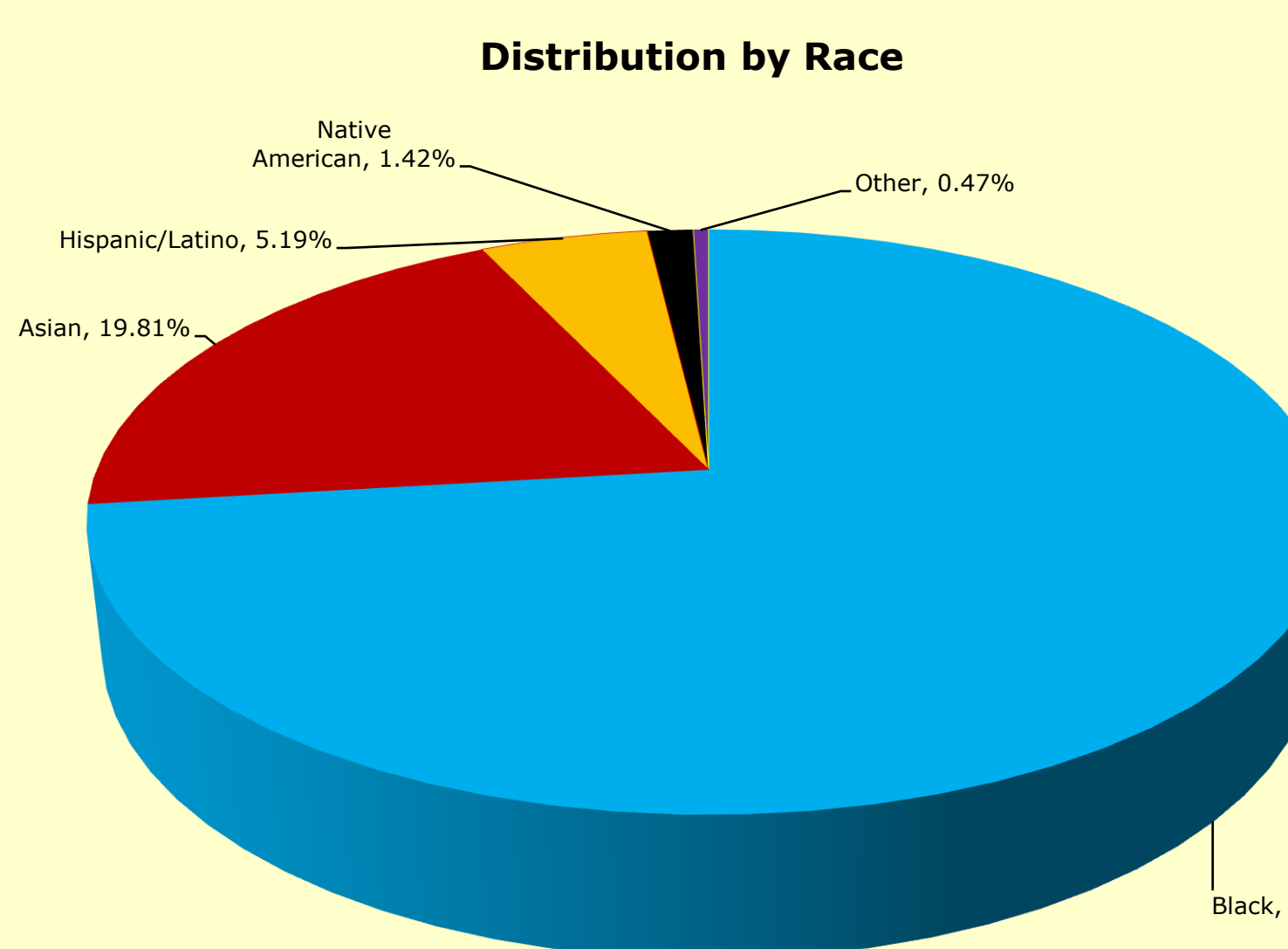


Table 1: Distribution of communications with Formal and Informal Systems during Hurricane Katrina Among Minority Survivors in Mississippi. Social Network Systems

	Informal		NGOs		Formal Govt. Agencies	
	Y (%)	N (%)	Y (%)	N (%)	Y (%)	N (%)
During Hurricane Katrina, which one did you get information from?	177 (81.6)	40 (18.4)	169 (77.9)	48 (22.1)	123 (56.7)	94 (43.3)
During Hurricane Katrina, which one of these did you contact?	169 (77.9)	48 (22.1)	140 (54.5)	77 (35.5)	120 (55.3)	97 (44.7)
During Hurricane Katrina, which one of these contacted you?	166 (76.5)	51 (23.5)	-	-	110 (50.7)	107 (49.3)
During Hurricane Katrina, which one of these offered to help you?	203 (93.5)	14 (6.5)	190 (87.6)	27 (12.4)	168 (77.4)	49 (22.6)

NGOs: Non- Governmental Organizations (Faith-Based Organizations, Neighborhood Organizations, Labor/Trade Unions, Catholic Charities, NAACP, World Vision, American Red Cross, AmeriCares, Mercy Corps, Oxfam-America) Govt. Agencies (Police Department, Fire Department, Emergency Medical Service, Hospital or Clinical, S.W.A.T Teams, National Guard Service, ATF, M.E.M.A, FEMA, Military, Sheriff's Department, 911 Service, U.S. Meteorological Services)

Table 2: Differences in Formal and Informal Communication Patterns During Hurricane Katrina by Race, Gender, Age and Income Among Minority Katrina Survivors in Mississippi.

	t-tests**											
	Race [†]			Gender ^{***}			Age ^{††}			Income [†]		
	t	F	p	t	F	p	t	F	p	t	F	p
Informal Systems												
People I got Information From	4.029	5.693	.000	-.600	.561	.549	3.047	8.313	.003	1.884	1.251	.061
People I Contacted	6.312	3.486	.057	-.261	1.149	.795	3.528	6.202	.001	2.629	5.708	.009
People Who Contacted Me	3.537	8.278	.000	.034	.111	.973	4.085	9.406	.000	1.160	1.526	.248
People Who Offered Help	2.470	24.611	.014	-.979	.263	.329	3.914	11.630	.000	1.721	.877	.087
Formal Systems 1 (NGOs)												
Organizations I got Information From	1.925	10.243	.056	-.115	.662	.908	.201	.482	.841	-.331	1.433	.741
Organizations I Contacted	1.474	1.916	.001	-.239	.659	.811	1.801	.014	.073	-.549	.296	.584
Organizations that Contacted Me	-	-	-	-	-	-	-	-	-	-	-	-
Organizations that Offered Help	2.904	31.770	.004	.947	2.540	.345	.144	.241	.885	-1.900	3.584	.059
Formal Systems 2 (Govt. Agencies)												
Govt. Agencies I got Information From	.009	.106	.992	1.537	3.412	.126	1.172	2.359	.242	-.317	1.028	.752
Govt. Agencies I Contacted	9.614	1.784	.076	1.592	2.580	.113	1.272	3.760	.205	-.398	.191	.691
Govt. Agencies that Contacted Me	.297	1.131	.767	1.589	2.585	.114	1.353	3.819	.178	-1.735	3.590	.084
Govt. Agencies that Offered Help	-1.802	15.975	.073	2.144	6.241	.033	.429	2.880	.668	-1.479	1.184	.141

Equal Variances Assumed; *Males Compared to Females; † Blacks Compared to other Minorities; ††40 years and older Compared to 19 -39 years; †No income earners Compared to Income earners

Conclusions:

- Minorities, especially blacks, tend to communicate more with their organizations and family networks during a disaster.
- Older blacks tend to communicate more with their informal systems and males tend to receive more communication from government agencies.
- People with no income tend to get information from their organizations and family networks during a disaster.

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