

“Urgency, Compassion, and Science”



Rapid Public Health Assessment, East Texas, Hurricane Rita, 2005

David Zane, M.S.

Community Preparedness Section



April 20, 2006

Outline

- Hurricane Rita in East Texas
- Rapid Public Health Assessment (RPHA) in Polk County
- Assessment Assets at the Texas Department of State Health Services (DSHS)

Key Points

- RPHA can be used to identify public health needs to strengthen relief activities
- Despite well-established and proven methods, RPHA has been under-utilized in disaster response in Texas
- Core RPHA Team - statewide asset

“Urgency, Compassion, And Science”

It Is All About Teamwork!



Acknowledgements

DSHS (HSR 4/5 Region)

- Dr. Paul McGaha
- Deb Evans
- Regional Staff

Polk County

- Judge Thompson
- Marcia Cook
- Sheriff Hambrick
- I. S. Homeowner's President
- I. S. VFD Chief and Staff
- I. S. Residents/Volunteers

Public Health Field Teams

- Vicki Harris
- Susan Kleam
- Barbara Seiser
- Jim Shadden
- Kerri Shofner
- Earnestean Williams
- Adolpho Duran
- Richard Taylor
- Mark Fussell
- Sandra Roush
- Meredith Reynolds
- Stacy Davlin
- Robert Knowles
- Tony Drew
- Bridget Ambrose
- Michael Deming
- Swati Deshpande
- Kevin Horton
- Sandra Schumacher
- David Zane

Acknowledgements

DSHS (Austin)

- Leslie Mansolo
- Dr. Judy Henry
- Dr. Tom Betz
- Jon Huss
- Strategic Science Team
- Cindy Tuttle
- Tracy Haywood
- Susan Prosperie
- And many more!

Other Partners

- CDC (Mark Fussell)
- FEMA
- And many more!

Hurricane Rita

- Made landfall near Sabine Pass in Texas as Category 3 on September 24, 2005
- Traveled north along Texas/Louisiana border
- Seventeen Texas counties were declared disaster areas



The “Triple Whammy”

- Counties and cities in East Texas were still sheltering Katrina evacuees from Louisiana
- Counties and cities in East Texas were now sheltering new Rita evacuees from the Texas coast
- Counties and cities in East Texas were now impacted by the devastation of Hurricane Rita itself

Public Health Response

- Assessed medical and public health infrastructure
- Conducted surveillance of communicable diseases and injuries
- Provided direct support in shelters housing evacuees
- Communicated health and safety messages
- Investigated rumors
- Assessed the environmental health (e.g., water, sanitation) and public health needs of communities

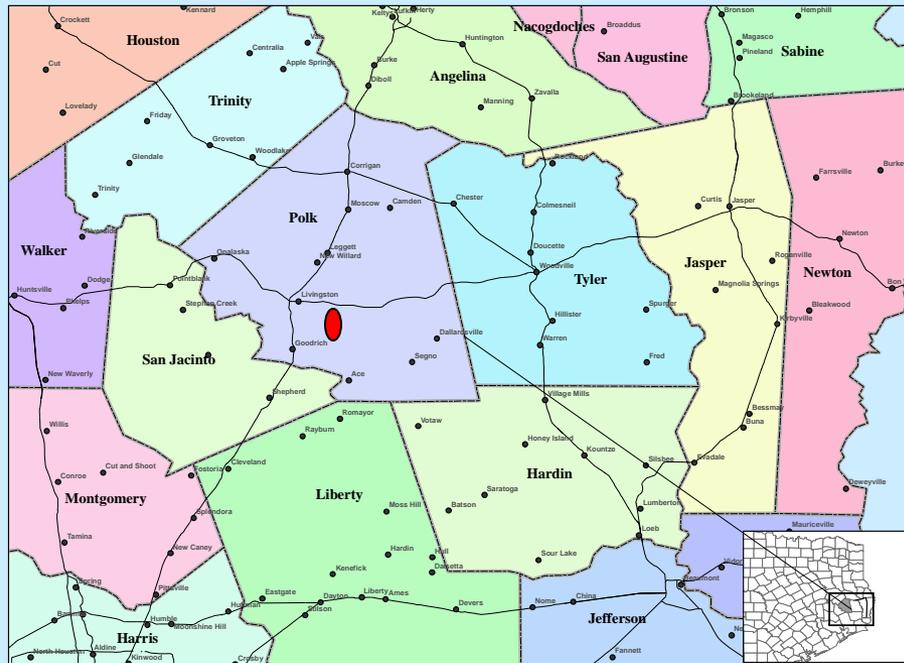
Rapid Public Health Assessment, Polk County

- County judge interested in knowing the public health needs of his hardest impacted communities

“I need you to go house-to-house and knock on doors”

Background

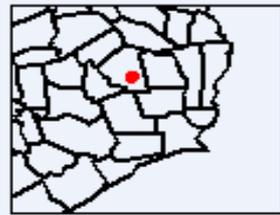
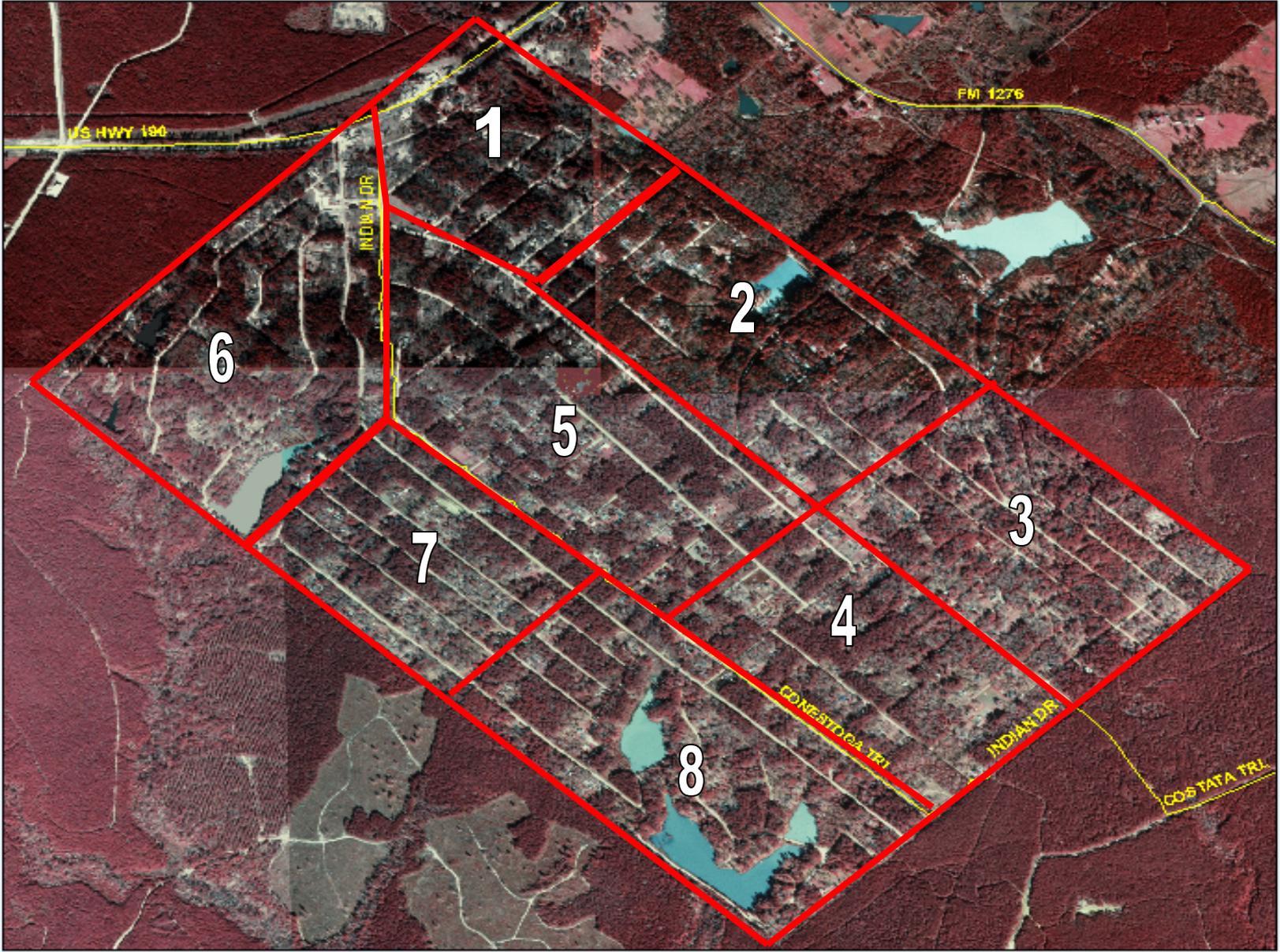
- Community of interest was Indian Springs Estates located near Livingston, Texas.



**Indian Springs,
Polk County,
Texas**

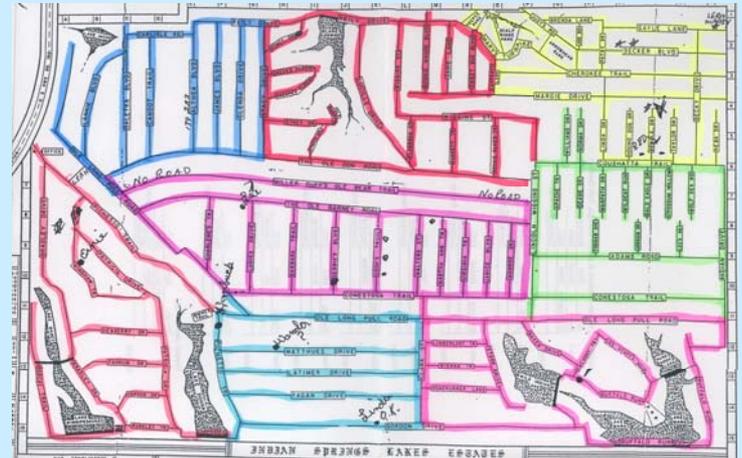
Color Infrared photo,
red indicates vegetation

1:24,000



Method

- Street map was copied and provided to 8 survey teams.
- Teams comprised of:
 - Local guide
 - Staff from
 - Region
 - State
 - CDC



Survey

- One page survey.....
 - *House Damage*
 - *Morbidity, Medical Care, Prescriptions*
 - *Food, sanitation*
 - *Electricity, communications, etc*
 - *Greatest Need*

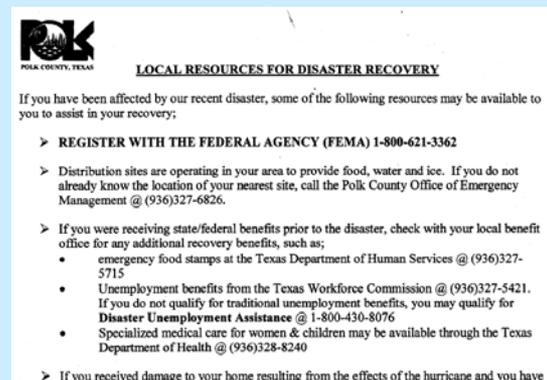
Survey

- Added questions at the request of
 - County judge
 - Homeowner's association president



Method

- Teams also distributed health information
 - Important Local Phone Numbers (*EOC, Fire Dept, Homeowners Association*)
 - Local Resources for Disaster Recovery (*created by EOC*)
 - Prevention Materials on 10 Topics, such as:
 - *Chain-saw injuries*
 - *Falls*
 - *Fire (fire ban in place)*
 - *Carbon monoxide poisoning,*



Results

- An estimated 459 households were counted
- 153 of these households were selected for the sample.
- Response rate of 54% (83/153).



Damage to the Home



Perceptions of unsafe home since the storm	27% (22/83)
Tree on the house	41% (33/81)
Tree on a vehicle	15% (12/71)
Assistance needed in removing tree(s)	52% (13/25)

Household Utilities

No electricity	35% (29/83)
No working telephone	7% (5/82)

Hurricane-related Illness and Injury

Injury in household due to hurricane	4% (3/80)
Illness in household since hurricane	23% (19/83)
Experiencing sadness/depression since the hurricane	38% (31/82)
Requiring medical care	26% (21/81)

Other Information

Aware of services/assistances available to them	83% (66/80)
Registered with FEMA	83% (68/82)
Has home owners insurance	37% (30/81)

What is Your Greatest Need?

- Electricity
- Home Repair
- Clean Water
- Mosquito Control
- Replace Perished Food
- Employment
- Prescription Medicines
- Gas
- Money

Recommendations

(Information analyzed and reported in 48 hours)

- Continue efforts to restore electrical power to the community.
- Continue efforts to provide safe tree removal services to the community
- Provide injury prevention information (e.g., the risk of chain saw- related injuries, falls)

Recommendations

- Continue efforts to control mosquitos.
- Continue efforts to address the special medical needs of families (e.g., prescription medicines).
- Provide information on stress management and available mental health services.

Feedback from Local and Regional Officials

- *“Met and exceeded our expectations!”*
- *“We were pleased and impressed by your team’s professionalism and dedication to reaching those in need.”*
- *“It was a very useful tool in our public health response!”*
- *“Our staff benefited to see how that process was used.”*

Improving the Process/ Next Steps

- Develop survey templates in advance; modify in the field with local input; keep survey short
- Role play interviews
- Other team members check questionnaires for completeness before leaving house
- Make sure enough interviewers stay to make re-visits

DSHS Assessment Assets

- DSHS Austin has set up a core RPHA Team
 - Statewide Asset
- It will assist and partner with local and regional health departments in responding to disasters in their communities



Core Team Roles

- Develop Questionnaire
- Decide on Sampling Methodology
- Assist in Data Collection (Interviewing and Data Entry)
- Analyze Data
- Write Report
- Present Results

Texas State Rapid Needs Assessment Instrument For Public Health

To be filled out prior to interview:	
ID: <input type="text"/>	
Address: <input type="text"/>	
City/ZIP code: <input type="text"/>	
Type of Structure • Single Family House • Multiple Units (eg, duplex, apartment) • Mobile Home • Other: <input type="text"/>	
Start Time: <input type="text"/>	
Do you feel your residence is safe to live in since the EVENT? Y N	
If no, why? <input type="text"/>	
How many people lived in this residence before the EVENT? <input type="text"/>	
How many people slept here last night? <input type="text"/>	
Ages: <input type="text"/>	

Has anyone in this residence suffered from significant stress since the EVENT?	Y	N
Are the effects of the EVENT preventing anyone in the residence from obtaining needed medication?	Y	N
Does anyone in this residence require medical care?	Y	N
Are the effects of the EVENT preventing anyone in the residence from obtaining medical care?	Y	N
Do you have access to enough food for everyone in the residence for the next three days?	Y	N
Do you have drinking water?	Y	N
If yes, source: City Well Bottled		
Other: <input type="text"/>		
Do you have electricity?	Y	N
If yes, source: Utility Generator Both		
If generator, where is it located? Inside Outside		
Are you cooking inside on a charcoal/gas grill or camp		

Additional Information

- General Email: rapidneeds@dshs.state.tx.us
- David Zane or Dr. Judy Henry
 - (512.458.7219)
- Website:
 - <http://www.dshs.state.tx.us/chs/gis/rapidneeds/default.shtm>
 - *Team Members, Examples of Protocols and Survey*

Benefits of Assessments

- Assesses human and public health effects
- Uses representative sampling
- Reassures people that they are not forgotten!



Summary

- RPHA can be used to identify public health needs to strengthen relief activities
- Despite well-established and proven methods, RPHA has been under-utilized in disaster response in Texas
- Core RPHA Team - statewide asset

“Urgency, Compassion, And Science”