

Integrating Faith-Based Leaders into Hazardous Weather Communications For Highly Vulnerable Neighborhoods in the Rio Grande Valley of Texas

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Weather-Ready Nation

Needs Assessment

Weather Ready: Big Picture

Becoming a **Weather-Ready Nation** is about **building community resilience** in the face of increasing vulnerability to extreme weather.



Weather-Ready Nation

Rio Grande Valley: Tip of the Spear

Lower Rio Grande Valley
Population

County	Population
Cameron Co., TX	420,392
Hidalgo Co., TX	831,073
Starr Co., TX	629,955
Willacy Co., TX	21,903
Total:	1,336,323

**Building Resilience is a
Big Deal Here!**

- Median Income Per Capita: \$14,500
• US Average: \$28,155
- Median Family Income: \$36,500
• US Average: \$53,046

37% of all persons live in poverty

U.S. Census Bureau, (2013) National Population Estimated

The Problem Starts in Colonias...

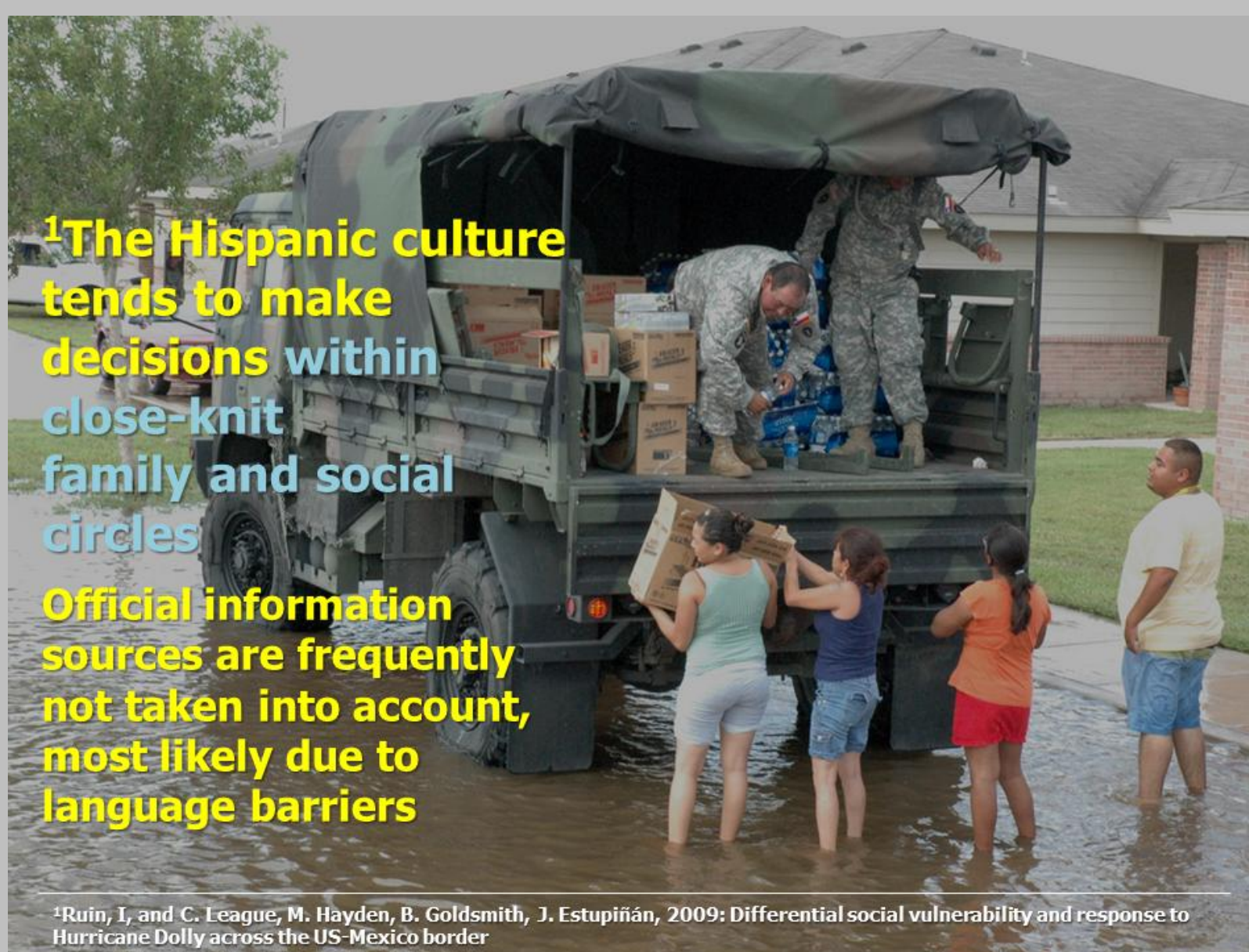


...And Many Look Like This



- RGV Population: 1.35 million
- 91% Hispanic
- 85% Speak Spanish at Home
- 39% of those Speaking Spanish at Home Speak English "Not Very Well"

Source: U.S. Census, 2015 Demographic Update



*Ruiz, I., and C. Escobar; M. Hayden, B. Goldsmith, J. Estupinan, 2009: Differential social vulnerability and response to Hurricane Dolly across the US-Mexico border

Bridging Weather Communication with Religion



Trusted Source!

Religion and the Rio Grande Valley:

- 47% of Population Affiliated (Catholic/Evangelical)
- 53% "Unclaimed", but many may be among most vulnerable, and likely Catholic



Efforts in 2016

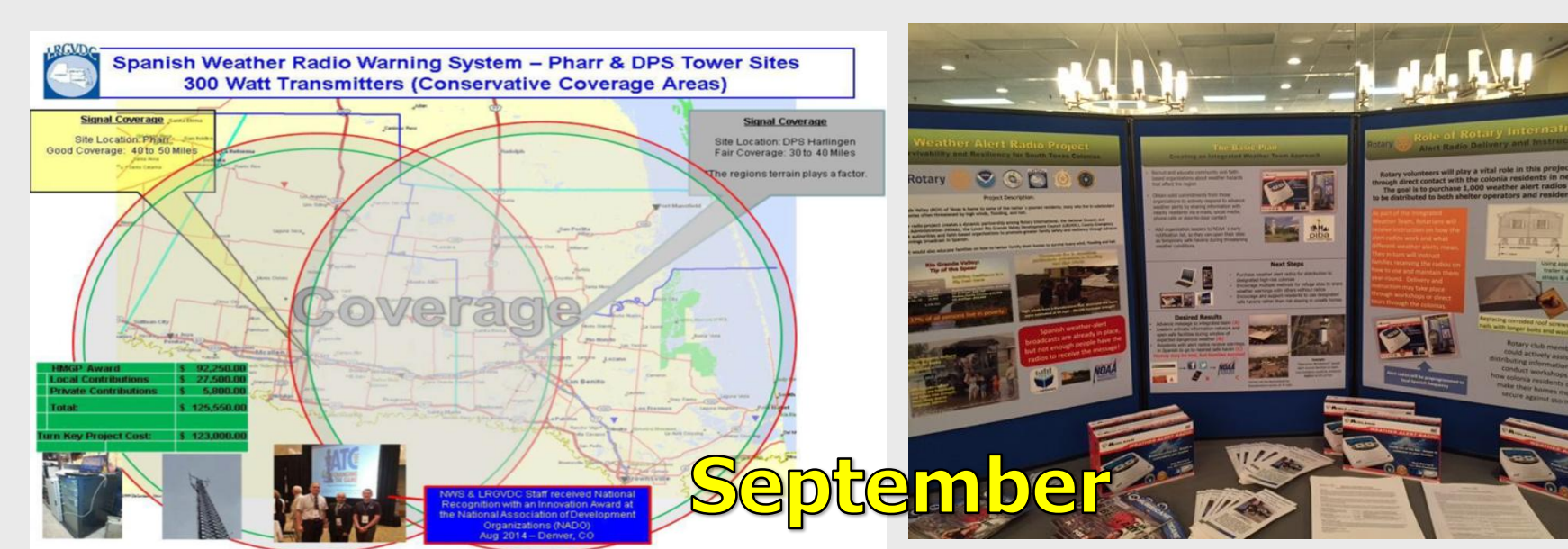


- First Faith-Based Integrated Weather Team (IWT) Meeting Organized and Conducted (Spring). Held at the Rio Grande Bible Institute. Audience of 60 Included:
 - Two dozen bi-national church leaders
 - County/City Emergency Management from Hidalgo and Cameron County
 - State Government Officials
 - Local Media
 - University of Texas-Rio Grande Valley



Meeting Topics Included:

- NWS Overview
- Substandard Housing in Colonias and Risk Assessment from Wind and Flood
- Faith Leaders as Force Multipliers to Help Vulnerable Communities Build Resilience and Weather-Readiness
- Discussion on How Partnerships - Government, Non-Profits, Churches, Other - Can Build Capacity for Hazardous Weather Resilience



Summer/Autumn Promotional Efforts

- July: Smaller Faith-Based IWT for Additional Pastors (Pharr, TX)
- August: Conferencia de Emergencias Para Colonias del Valle (Alamo, TX)
 - Congregations informed on building infrastructure and family resiliency
- September-December: Rotary International - District 5930 Activities
 - September: Bi-National District Meeting Poster and Oral Presentation for Potential Local or International Grant for NOAA Weather Radios (McAllen)
 - December: Follow-Up Presentation at North Brownsville Club for Local Grant Option

Plans and Goals: Ready, Responsive, Resilient

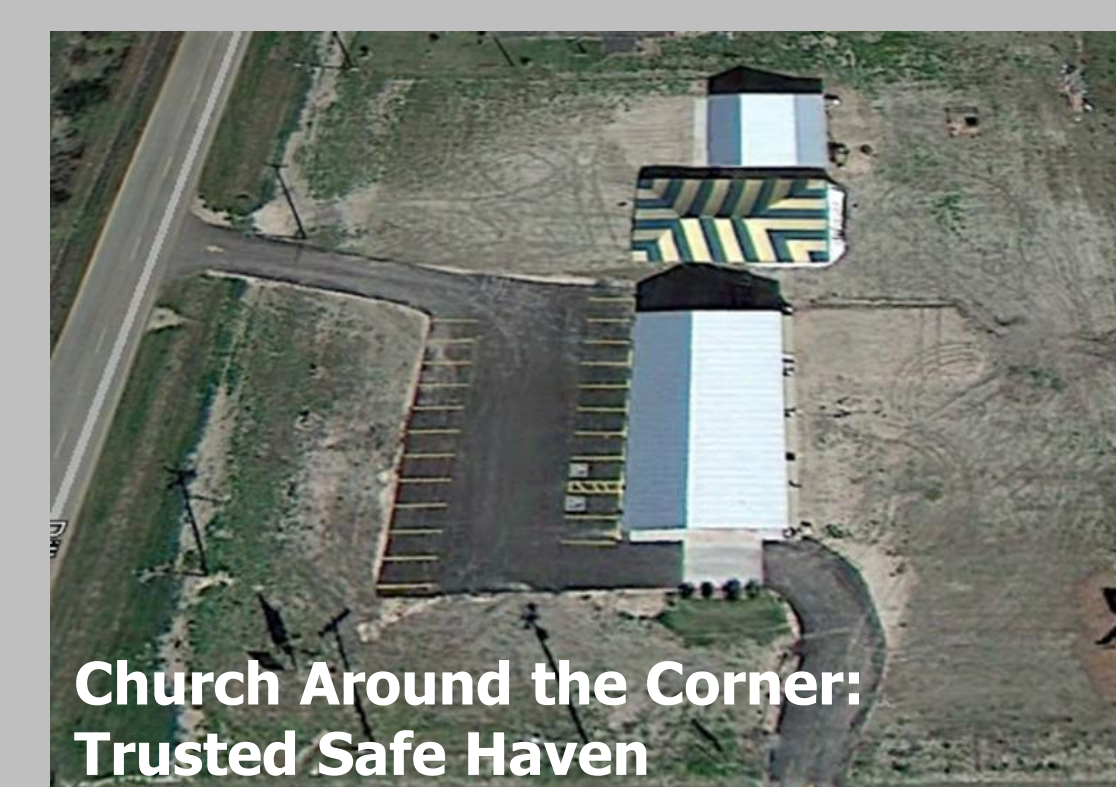
"Shelters of Faith"

Process:

- Weather Enterprise educates high level faith-based leaders on weather hazards, NWS warnings, NOAA Weather Radio (NWR)
- Leaders train pastors, priests, down the line with assistance from Weather Enterprise
- All levels educate congregations and faith-based communities, especially the most vulnerable
- NWR receivers provided to all participating churches and community centers and residents per funding plan

Action:

- NWS/Weather Enterprise predicts damaging thunderstorm wind/hail episode 6+ hours in advance
- Participating churches spring into action, notifying congregations of opening during threat period
- Warning issued; residents hearing NWR (Spanish) evacuate to safe trusted shelter
- Outcome: Substandard homes destroyed, but **families are safe and unharmed**



"Resiliency Rally"

Action Plan

- Faith-Based IWT holds frequent "Conferencias de Emergencia" for Colonias across the Rio Grande Valley
- Focus on inexpensive or assistance programs to reduce substandard housing through "hardening"
- Private/public partnership to involve big box hardware stores, government (ready.gov, flash.org), IWT members
- Outcome: **Stronger Buildings Built through Community Efforts**



From This...

...To This!

References

- Brown, V.Y., 2011:** Weathering the Cultural Storm: Recasting the Natural World of Perceived Disaster. *Weather and Society Watch*, 2, 14-15.
- Gomez, R., and L. Guajardo and W. L. Turk, 2012:** Distance, Dispersion, and Poverty Make Difficult Choices for Public Transit. *Reconnecting America*, Blog Entry.
- Rivera, D.Z., 2014:** The Forgotten Americans: A Visual Exploration of Lower Rio Grande Valley Colonias. *Michigan Journal of Sustainability*, 2, 12 pp.
- U.S. Census Department, 2015:** QuickFacts Demographic Update by Texas Counties (website: <http://www.census.gov/quickfacts/table/PST045215/48489,48427,48061,48215,48>)

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