



Harris County
Public Health
Building a Healthy Community



Hurricane Harvey: A Local Public Health Perspective

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Executive Director, Harris County Public Health (HCPH)
President, National Association of County & City Health Officials (NACCHO)

2017: A Year of Disasters-Lessons Learned

May 17, 2018
Monroe Township, NJ

LOCAL HEALTH DEPARTMENTS: WORKING TOGETHER



The National Connection for Local Public Health

NACCHO
National Association of County & City Health Officials



Public Health
Prevent. Promote. Protect.

EVERYTHING IS BIGGER IN TEXAS



Harris County: Big, Diverse & Complex

Harris County is the third most populous county with over **4.7 million** people spread over **1,778 square miles**.



HARRIS COUNTY IS HOME TO...

- The world's **largest** medical center
- One of the world's **largest** ports
- Two **international** airports
- The nation's **largest** concentration petro-chemical facilities
- The **largest** refugee health screening program in Texas



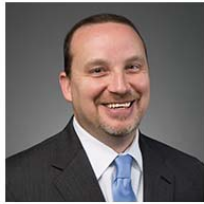
HCPH ORGANIZATIONAL FRAMEWORK

- **5 Offices: BREADTH** of specific skill sets/expertise broadly across all public health activities
- **5 Divisions: DEPTH** of subject matter expertise on specific programmatic areas programs & disciplines



Umair A. Shah, MD, MPH
Executive Director

Harris County is the 3rd most populous county in the U.S., one of the nation's fastest growing counties, and home to the 4th largest city in the U.S., The City of Houston. Our Harris County Public Health Executive Leadership are delighted to have you joining our team. We look forward to working together and building the relationship with you. Each and every employee is a valuable member of our team and supports HCPH in accomplishing our mission. WELCOME TO Harris County Public Health!



Les Becker, MBA
Deputy Director



Michael White, DVM, MS
Director
Veterinary Public Health



Marva Gay, JD
County Attorney



Mustapha Debboun, PhD, BCE
Director
Mosquito & Vector Control



Michael W. "Mac" McClendon
Director
Office of Public Health Preparedness & Response



Michael R. Schaffer, MBA
Director
Environmental Public Health



Elizabeth Perez, MPH
Director
Office of Communications, Education, & Engagement



Brian C. Reed, MD
Director
Disease Control & Clinical Prevention



Rocaille Roberts, MPH
Director
Office of Policy & Planning



Gwen Sims, MEd, RD, LD
Director
Nutrition & Chronic Disease Prevention



Vacant
Director
Office of Science, Surveillance, & Technology

OUR PREMISE: LLWWP

LLWWP: Health is a complex equation based on a number of inputs not limited to the clinic setting. Health takes place:

- Where people **L**ive
- Where people **L**earn
- Where people **W**ork
- Where people **W**orship
- Where people **P**lay







NEVER A DULL MOMENT

- *Tropical Storm Allison (2001)*
- *Nation's first Biowatch hit in Houston (2003)*
- *Monkey Pox found in exotic pet market (2003)*
- *Possible Lassa Fever on cargo ship – Africa (2004)*
- *Crosby Well natural gas explosion (2005)*
- *Hurricane Katrina Response – Astrodome (2005)*
- *Hurricane Rita Evacuation (2005)*
- *Multi-State GI illness investigation – soccer (2005)*
- *Fake Flu Investigation (2005)*
- *Hydrobromic acid release – (2006)*
- *Rabies Response – teenager death (2006)*
- *Hepatitis A Response – restaurant worker (2007)*
- *Salmonella Saint Paul investigation (2008)*
- *Hurricane Ike Response (2008)*
- *Hepatitis B in nursing home (2009)*
- *nH1N1 18 month response (2009 – 2010)*
- *West Nile virus (WNV) response (2012)*
- *Cyclospora investigation (2013)*
- *Ebola readiness/response activities (2014 – 2015)*
- *Rabies in Harris County dog (2015)*
- *Memorial Day Floods (2015)*
- *Tax Day Floods (2016)*
- *Zika Response (2016 – 2017)*
- ***Hurricane Harvey (2017 – ongoing)***

**Hurricane Katrina –
2005**



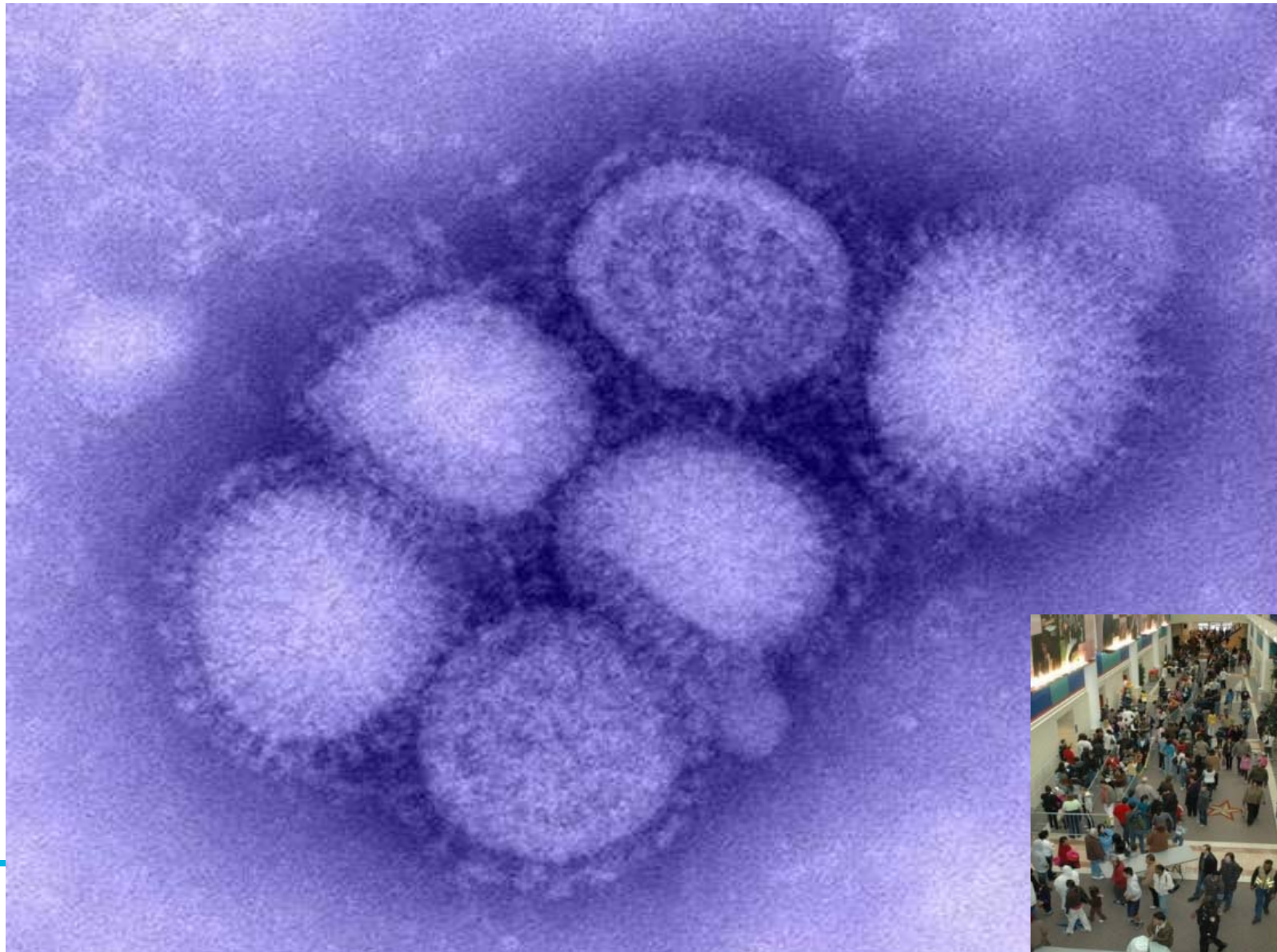
**Hurricane Rita –
2005**



**Hurricane Ike –
2008**



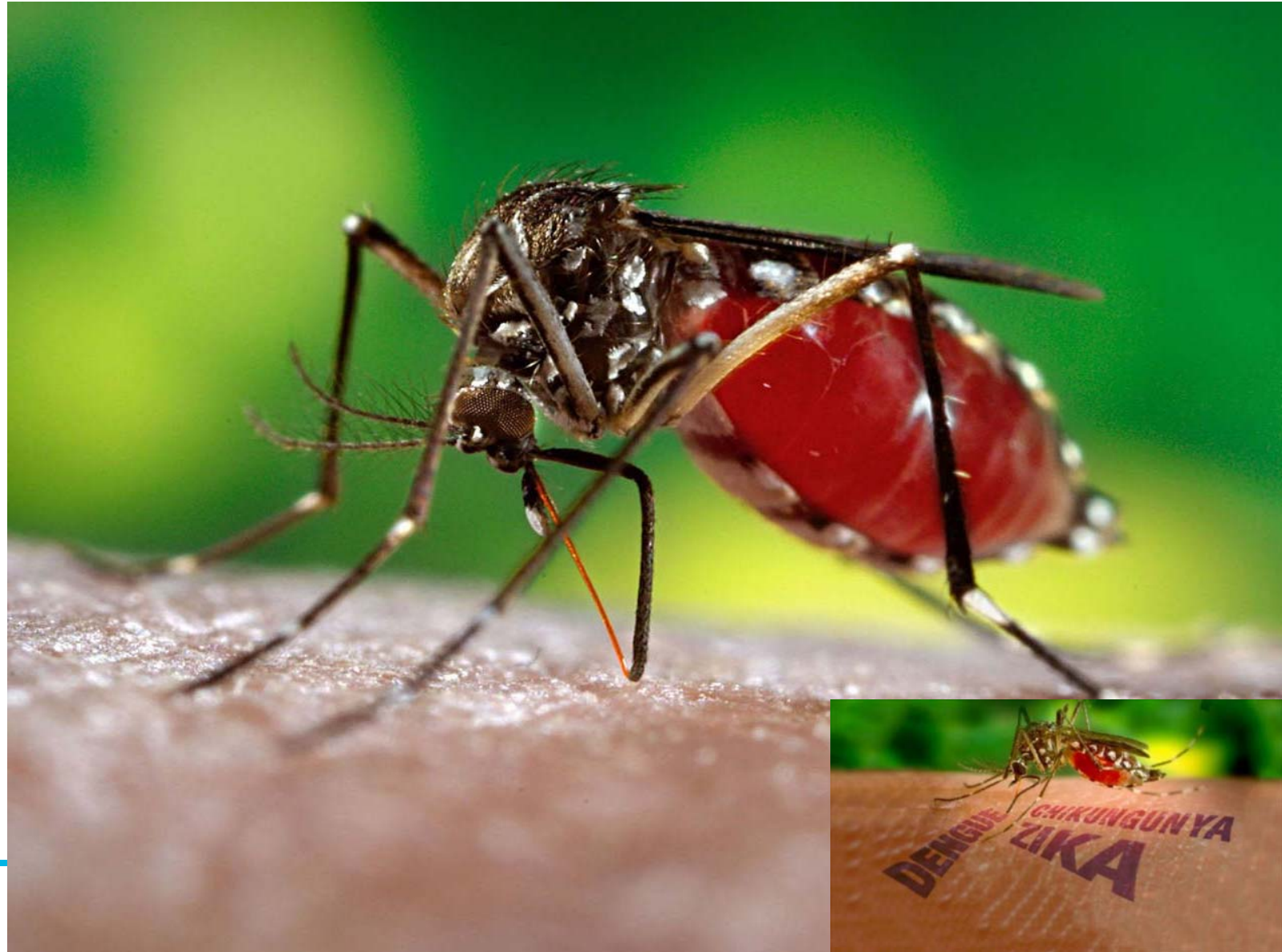
**Novel H1N1 –
2009-2010**



**Ebola –
2014-2015**



Zika –
2016-2017



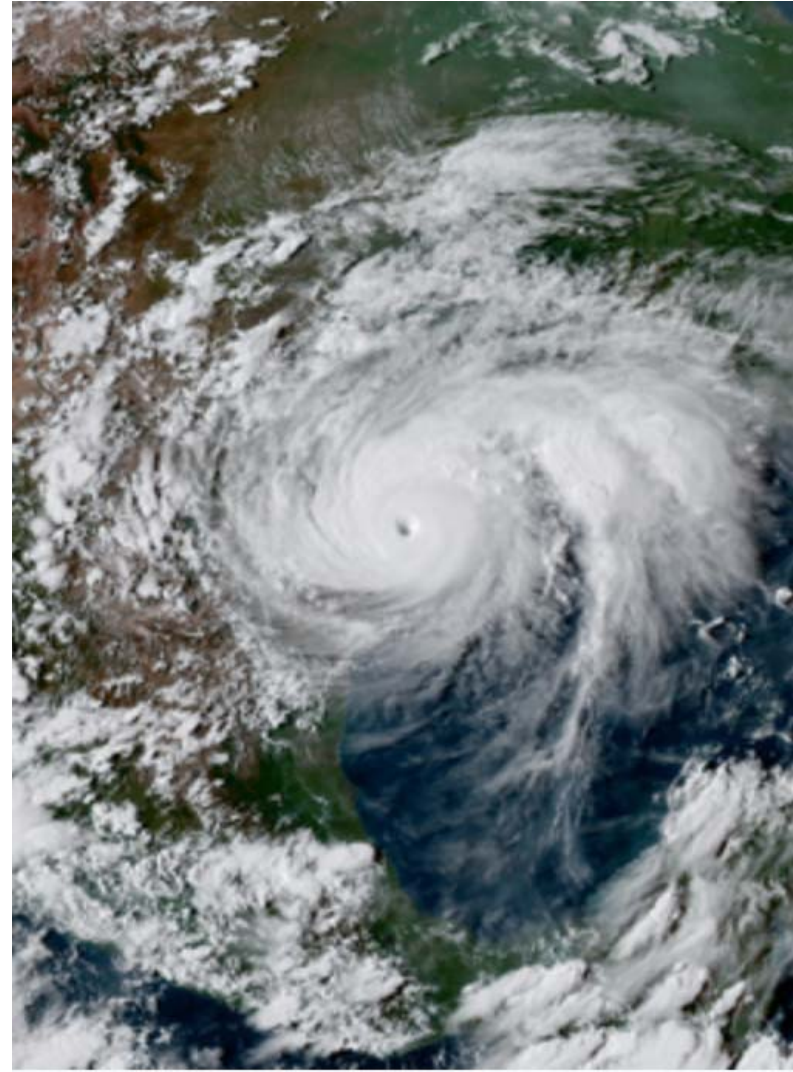
“ This event is unprecedented and all impacts are unknown and beyond anything experienced. ”

National Weather Service



Hurricane Harvey in Harris County

- Category 4 Hurricane
 - *(Landfall on Texas coast August 25, 2017)*
- Third 100+ year flood in 3 years
- 30% of the county submerged
- >200,000 homes damaged
- 36 fatalities





**1 TRILLION
GALLONS
OF WATER**



CEO4SHO / Twitter







PUBLIC HEALTH RESPONDS WHERE PEOPLE:

Live
Learn
Work
Worship
Play



HURRICANE HARVEY – HCPH RESPONSE

- Multi-agency coordination
- Community engagement
- Shelter medical operations
- Disease surveillance
- Mosquito control
- Environmental health
- Animal management
- Mobile service delivery



Harris County Public Health Responsibilities

County's Plan – Annex H & ESF 8 (Health & Medical)

- Perform pre-emergency planning
- Provided qualified staff to the HCOHSEM EOC
- Using and ensuring staff are trained in NIMS
- Establish a health & medical command & control
- Setting up the Functional Needs Medical Refuge
- Coordinating health providers (incl. spontaneous volunteers)
- Meeting diverse needs in an equitable fashion
- Surveilling for Public Health & medical needs
- Communicate in coordination with JIC
- Assess information on injuries & fatalities
- Coordinate the evaluation of damage sustained by medical facilities in disaster area



HOSPITAL SYSTEMS FARED QUITE WELL

LHA is responsible for coordinating the evaluation of damage sustained by medical facilities in the disaster area



Texas Medical Center
@TXMedCenter

Following

As of now, medical center is #accessible through major access points. Status subject to change contingent on rainfall. #Harvey



1:09 PM - 28 Aug 2017

59 Retweets 55 Likes

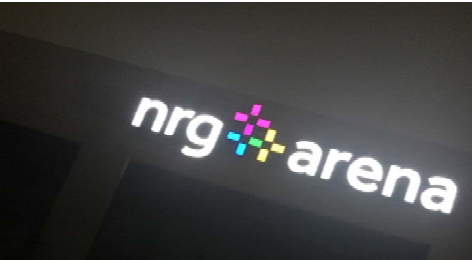
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OUTREACH, EVENTS & PARTNERSHIPS

An activity of providing services to any populations who might not otherwise have access to those services.









BEING THE VOICE OF THE
COMMUNITY

**“Statistics are human
beings with the tears
wiped off”**

– Sir Austin Bradford Hill





GOOD MORNING AMERICA

Start small. Bloom big.  Learn more at [PalmBeachCounty.com](#)

Houston health officials warn homeowners about slight uptick in diseases after Harvey

GMA SARAH MESSER
Good Morning America September 20, 2017



One month after Harvey hit Texas, Houston residents are still cleaning up, with some even having to gut their homes after the devastation caused by the floodwaters.

Now public health officials from Harris County are going door to door to warn homeowners about the dangers still lurking in their Harvey-affected homes.



CBS NEWS | September 4, 2017, 7:25 PM

Health official spreads the word about health risks after Harvey

2 Comments / Share / Tweet / Stumble / Email

HOUSTON -- Dr. Umair Shah is making the rounds in the flooded areas of Houston. As the Harris County Public Health director, he's warning residents about the risks they face while cleaning up their homes in the aftermath of Hurricane Harvey, reports CBS News correspondent Michelle Miller.

"The enemy of this is mold and mold loves moisture," Shah said.

Xiomí Smoyczek got a foot of water, and now mold is growing in her garage and inside her house.



Shah is warning Houston residents about the risks they face while cleaning up their homes. CBS NEWS



2200 miles in 10 days . . .

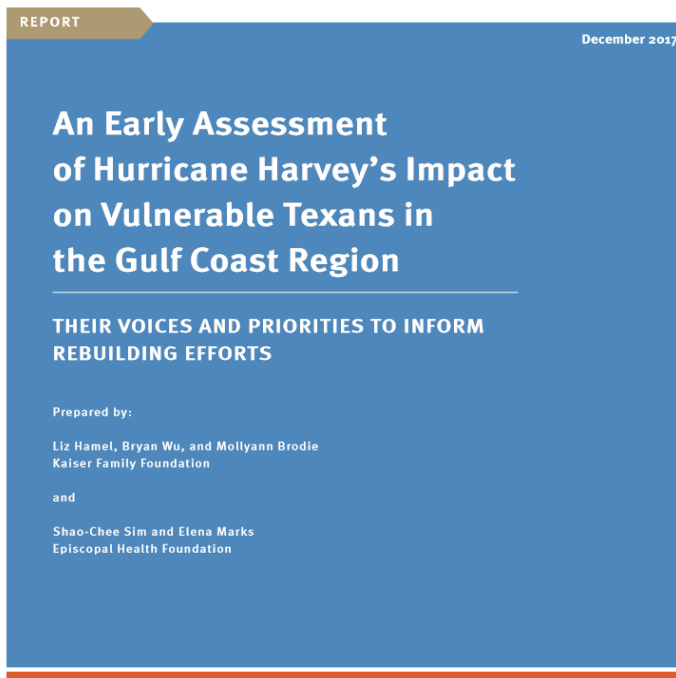
HCPH POST HARVEY SURVEYS

*CDC's Community Assessment for Public Health
Emergency Response (CASPER)*

- Southeast Harris County: *September 15 – 16, 2017*
- Northeast Harris County: *September 29 – 30, 2017*



KFF & EHF Survey



*“Yes, we’re still catching up. We’re still catching up with our bills. **We’re not at where we were at before.** And now you’re having to limit a lot... My son wanted a pizza. They’re charging me like \$5 for a pizza I pay \$1 for at the store...I was trying to save a few bucks that I do have, but for my son of course I’m going to do it for him. I spent that \$5 even though we were not going to have enough to eat again for the next couple days.”*
– 42-year-old Hispanic female, Houston

Key Survey Findings:

-  13% report worse health
-  60% of those with worse health struggle to get care
-  50% of affected residents have no savings
-  33% of affected residents report worse mental health

HCPH: NEXT STEPS

Community Resilience



Hurricane Harvey – HCPH Next Steps

- **Implementing** findings from Hurricane Harvey events
- **Assessing** & addressing data gaps in the immediate/ongoing aftermath
- **Formulating** a Harvey-informed Community Resilience Plan
- **Increasing** Mental Health programmatic efforts & surveillance
- **Drafting** a report on Climate's Impact on Health for Harris County
- **Readying** for 2018-2019 Hurricane Season (*June 1 – November 30*)



The Role of Local Public Health Just Makes "Common Sense"



"Taking Public Health to the Public"

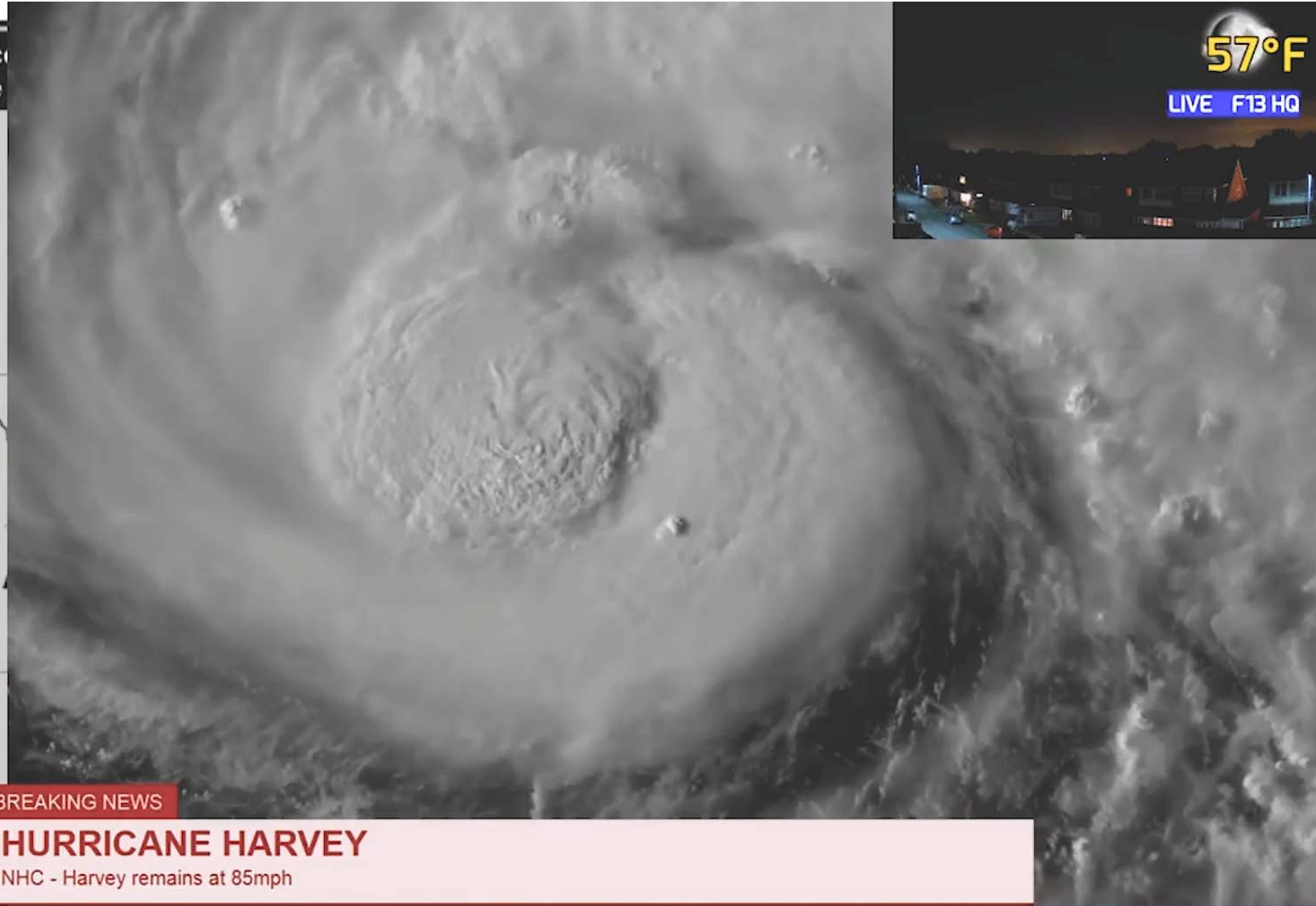
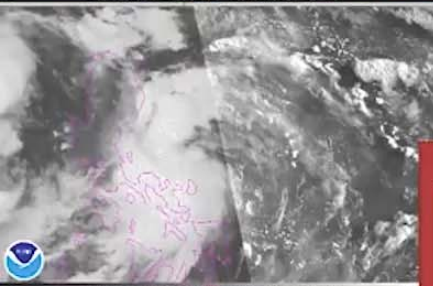
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www.hcphtx.org

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NM

Note: The cone of
the size of the



57°F

LIVE F13 HQ



BREAKING NEWS

HURRICANE HARVEY

NHC - Harvey remains at 85mph

THURSDAY August 24, 2017 23:04:08 UTC

Hurricane Warning in effect for Port Mansfield to Sargent Texas