Community Resilience: Focusing efforts in disaster response

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Harris County Public Health (HCPH)
May 16, 2018
TDEM Conference / San Antonio, TX
OUR POPULATION

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

Population Growth from 1990 - 2016

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<td>U.S.A.</td>
<td>30%</td>
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<td>Cook County</td>
<td>3%</td>
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<td>LA County</td>
<td>15%</td>
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<td>Harris County</td>
<td>67%</td>
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Population Size, 2016

- Unincorporated: 2.0M
- City of Houston: 2.2M
- Other municipalities: 500K

Source: Population Study, Harris County Budget Management Department, February 2016. Available at: http://www.harriscountytx.gov/budget/
DIVERSITY

- Unincorporated Harris County
- 33 Municipalities
- Demographics
  - 145 languages
- Income disparity
  - 20% earned half the median income

Houston Chronicle. May 3, 2018
NEVER A DULL MOMENT

- Nation’s first Biowatch hit in Houston (2003)
- Monkey Pox found in exotic pet market (2003)
- Possible Lassa Fever on cargo ship from Africa (2004)
- Crosby Well natural gas explosion (2005)
- **Hurricane Katrina Response – Astrodome (2005)**
- **Hurricane Rita Evacuation (2005)**
- Multi-State GI illness investigation – local soccer event (2005)
- Fake Flu Investigation (2005)
- Patient with MDR-TB & travel history (2008)
- Salmonella Saint Paul investigation (2008)
- **Hurricane Ike Response (2008)**
- H1N1 18 month response (2009-2010)
- West Nile virus (WNv) response (2012)
- Cyclospora investigation (2013)
- Rabies in Harris County dog (2015)
- Zika Response (2016 – ongoing)
- **Hurricane Harvey (2017 – ongoing)**
COMMUNITY RESILIENCE AT HCPH

- Why community resilience at HCPH?
Community Resilience

and CASPER
Research
Starting in 2016 and continuing today

- Community resilience-specific
  - Definitions
  - Preparedness
  - Interventions/activities examples
  - Monitoring and evaluation systems

- Other
  - Health equity
  - Asset-based community planning
  - Participatory research
  - Monitoring and evaluation systems
  - Complex systems
**CHR: HCPH DEFINITION**

- **Definition**
  A community’s capacity to prepare for, withstand, mitigate the effects, and recover from public health emergencies, utilizing a health equity lens.

- **Mission**
  To improve Harris County community levels of physical, behavioral, social and environmental health and well-being by engaging the community in activities to strengthen community health resilience.

- **Vision**
  Healthy people, healthy communities, a healthy Harris County before, during and after public health emergencies.
A PLAN IN 3 PARTS

- Employee Resilience
- Integrating Community Health Resilience at HCPH
- CRO Community Engagement
EMPLOYEE RESILIENCE PLAN

- Tools already in place:
  - Revised Employee Preparedness SOG
  - Agency-wide events/competitions
  - Trainings and exercises

- New ideas from employees:
  - Regular disaster preparedness/response updates
  - Direct communication with the CRO
  - Post-Harvey
  - video resources
INTEGRATING CHR AT HCPH

How we are asking:
- Interviews
- Focus groups
- Research
  - Best practices
  - Lessons learned

What we are asking:
- How can we complement what is already being done?
- What gaps exist?
- What is the best medium for information?
- Proposed activities/products/etc.

CHR Advisory Group*
- OPHPR
  - Community Resilience Officer
- OPP
  - Climate Change
  - Health Equity
  - Community Health
- EPH
  - Built Environment
- NCDP
  - Chronic Disease Prevention
  - Social/Emotional Well-being
- DCCP
  - Refugee
  - TB
  - HIV/Ryan White
- OSST
  - REU
  - Epidemiology
- OCEE
- DSRIP
  - Health Impact Team
COMMUNITY ENGAGEMENT
VULNERABLE COMMUNITIES

- Characteristics
  - Cultural/linguistic isolation
  - Ethnicity/race
  - Median income
  - Age
  - Access
  - Education
  - Environment
  - Risk exposure
MAPPING VULNERABILITY

- Assets (blue dots)
- Emissions (red square)
- FEMA Flood Hazard Zones
- 2015 Health Insurance Spending (light yellow and orange)
CRO COMMUNITY ENGAGEMENT

First 3 steps:
- Identify community
- Identify leaders
- Identify work (community mapping)

Further work:
- Menu of possibilities:
  - Informational seminars
  - Table top exercises
  - Workshops
  - Other Health Department activities/services
  - Other activities as defined by the community
  - [Electronic game] – {HT-HT}
HURRICANE HARVEY

and Community Resilience
HCPH Priority Public Health Issues for 2013-2018
Selected for the magnitude of the issue and our ability to make progress in Harris County

1 trillion gallons of water
HURRICANE HARVEY – HCPH RESPONSE

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

PUBLIC HEALTH RESPONDS WHERE PEOPLE:

Live
Learn
Work
Worship
Play
HARVEY-RELATED RESILIENCE DATA

- Track flooded homes - FEMA
- Social Determinants
- FEMA Flood Hazard Zones
- Used to decide CASPER locations after Harvey
TWO POST HARVEY SURVEYS

CDC’s COMMUNITY ASSESSMENT FOR PUBLIC HEALTH EMERGENCY RESPONSE (CASPER)

- Southeast Harris County – September 15 – 16, 2017
- North-central Harris County – September 29 – 30, 2017
LESSONS LEARNED

- Reaching out to partners
- Resources in different languages
- Community Resilience information will be asked to inform other activities
MOVING FORWARD
THE FUTURE OF CHR

- Community Health Resilience is still a relatively new concept
- There is not one agreed upon definition
- No definition = no agreed upon evaluation system – there are many people working on it

- We are still learning as we go –
  - the strategy/plan will be tweaked
    - As we learn new lessons (Harvey)
    - As others learn (continued research)
HCPH NEXT STEPS

- **Implementing** corrective actions from Hurricane Harvey AAR
- **Assessing** & addressing data gaps in the immediate aftermath
- **Increasing** Mental Health programmatic efforts & surveillance
- **Focusing** preparedness planning and engagement on vulnerable populations
- **Finalizing** resilience monitoring and evaluation
THE ROLE OF PUBLIC HEALTH

“Taking Public Health to the Public”

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