#InvisibilityCrisis: Bring Public Health to the Spotlight

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#InvisibilityCrisis
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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.
Even Our Challenges: Mosquitoes, Obesity and Everything In-Between
HARRIS COUNTY, TX

Population Growth from 1990 - 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.A.</td>
<td>30%</td>
</tr>
<tr>
<td>Cook County</td>
<td>3%</td>
</tr>
<tr>
<td>LA County</td>
<td>15%</td>
</tr>
<tr>
<td>Harris County</td>
<td>67%</td>
</tr>
</tbody>
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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/
HCPH Priority Public Health Issues for 2013-2018

Selected for the magnitude of the issue and our ability to make progress in Harris County

Factors in Health

Local, State & National Context

Policy, Laws & Regulations

Healthy People.............Healthy Communities
The True Drivers of Health

80% of Health is out of Health Care
“I diagnosed ‘abdominal pain’ when the real problem was hunger; I confused social issues with medical problems in other patients, too.”

—Laura Gottlieb, MD
San Francisco Chronicle 8/23/10
# Public Health AND Healthcare

## Public Health | Medicine

<table>
<thead>
<tr>
<th>Focuses on populations</th>
<th>Focuses on the individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasizes prevention and health promotion for the whole community</td>
<td>Emphasizes diagnosis, treatment and care for the whole patient</td>
</tr>
<tr>
<td>Employs interventions aimed at the environment, human behavior, lifestyle and medical care</td>
<td>Employs provision of medical care</td>
</tr>
<tr>
<td>Stimulated by threats to the health of populations</td>
<td>Stimulated by needs of patients</td>
</tr>
</tbody>
</table>

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Framing Health
The U.S. spends $2.5 trillion on health care every year.

$8,086 is spent on medical care per person per year.

Only $251 is spent per person on public health measures that prevent medical conditions before they occur.

The U.S. spends more of its GDP on health care but has worse results than OECD nations.

Of 10 OECD nations with the largest per capita GDP for which data were available in all years.

Source: OECD
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 *Live*
- Where people *Learn*
- Where people *Work*
- Where people *Worship*
- Where people *Play*
Our Premise: Global Health Matters

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Our Premise: One Health Matters

More people, in more places

More travel, from more places

More vectors, and more cases
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Our Road to Health
I&E&E
“Hi-Tech”__“Hi-Touch”

The Me: @ushahmd
The We: @HCPHTX

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Hi-tech Innovation: From Apps to Traps

The HCPH mobile app – view and report real-time concerns

Video Directly-Observed Therapy for TB

“Smart” mosquito traps produce real-time Big Data from the field
Hi-Touch Engagement Opportunities

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Engagement Through (Social) Media
Breaking News: Public Health is Inherently Political

Vaccines Do Not Cause Autism
Concerns | Vaccine Safety | CDC

Martin Luther King

Of all the forms of inequality, injustice in health care is the most shocking and inhumane.

Speaking before the Second National Convention of the Medical Committee for Human Rights.
Equity
What is Health Equity?

A state in which every person has the opportunity to attain his or her full health potential and no one is disadvantaged from achieving this potential because of socioeconomic or environmental conditions.
“We often talk about [health equity] as an inside/outside strategy. The outside is building up capacity of residents to participate in the democratic process, become decision makers, shape policy and solutions, and change culture. Inside is trying to work within those institutions to incorporate and institutionalize an equity lens in what they’re doing.”

The California Endowment
Quoted in *Summarizing the Landscape of Healthy Communities: A Review of Demonstration Programs Working towards Health Equity*, Build Healthy Places Network
Public Health is also....

The Social Fabric of a Community and the conditions in the environment that affect a wide range of health, functioning, and quality-of-life.

- Economic Stability
- Education
- Transportation
- Housing
- Community Conditions
Our Equity Approach: The 4 E’s

Economics  Education  Environment  Engagement
Equity in Operations

Roots of Health Inequity
National Association of County and City Health Officials

Safe Routes to School, Healthy Living Matters: Pasadena
Hurricane Harvey
BREAKING NEWS: Climate Change is Political

Partisan Gap Widens on Worries About Global Warming

Percentage who worry "a great deal" about global warming or climate change

- **Republicans**
- **Independents**
- **Democrats**

![Chalkboard with scientific diagrams and text]

![Sign with text: "There is no planet B."

![Graph showing poll results over years]
Climate Change Impacts Health

- **Environmental Degradation**
  - Forced migration, civil conflict, mental health impacts, loss of jobs and income

- **Extreme Heat**
  - Heat-related illness and death, cardiovascular failure

- **Severe Weather**
  - Injuries, fatalities, loss of homes, mental health impacts

- **Water & Food Supply Impacts**
  - Malnutrition, diarrheal disease

- **Degraded Living Conditions & Social Inequities**
  - Exacerbation of existing social and health inequities and vulnerabilities

- **Changes In Vector Ecology**
  - Malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Lyme disease, chikungunya, West Nile virus

- **Air Pollution & Increasing Allergens**
  - Asthma, cardiovascular disease, respiratory allergies

- **Water Quality Impacts**
  - Cholera, cryptosporidiosis, Campylobacter, leptospirosis, harmful algal blooms

Source: California Department of Health
Select HCPH Response Events: 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 (2005)
    Fake Flu Investigation (2005)
    Hydrobromic acid release – (2006)
Hepatitis A Response – restaurant worker (2007)
Patient with MDR-TB & travel history (2008)
Salmonella Saint Paul investigation (2008)
    Hurricane Ike Response (2008)
    nH1N1 18 month response (2009-2010)
    West Nile virus (WNv) response (2012)
    Cyclospora investigation (2013)
    CHIK-V related (2014)
Rabies in Harris County dog (2015)
    Zika Virus (2016-17)
    Hurricane Harvey (2017-18)
    Measles “resurgence” (2019)
ITC Petrochemical Plant Fire (current)
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Video clip of Harvey effort
PUBLIC HEALTH RESPONDS WHERE PEOPLE:

Live
Learn
Work
Worship
Play
“Taking Public Health to the Public”
“Statistics are human beings with the tears wiped off.”

– Sir Austin Bradford Hill
HCPH: Organizational Transformation

HCPH is transforming its public health mission by building internal capacity through staff development, operational efficiencies, facility improvements, and utilization of new ideas and technologies. This includes engaging cross-disciplinary leadership teams under the umbrella of an overall departmental strategic planning process.

Examples abound – not limited to Health Innovation, One Health, Health Equity, Chronic Disease Prevention, Built Environment – and are helping shape this very transformation. At HCPH, we know change is often not easy but it is necessary. We embrace change in building the “best health department not for yesterday or today, but for tomorrow.”
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Three V’s of Public Health

- **Visibility**
- **Value**
- **Validation**

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Future State: Looking Ahead

A well-recognized and well-resourced public health system that is strong, adaptable and responsive to community needs.
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Public Health = Building a Healthy Community
Public Health Just Makes “Common Sense” ... And It Takes A Village . . .

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