

HFD ETHAN PROJECT

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ETHAN: **Emergency** **Tele-** **Health** **And** **Navigation**



“THE PROBLEM:”

- * EMERGENCY SERVICES (EMS/ED) OVERUSE**
- * ACCESS TO HEALTHCARE CONCERNS**
- * UNPARALLELED POPULATION GROWTH**
- * UNCOORDINATED HEALTH CARE SYSTEM**

Emergency Room Use and Access to Primary Care: Evidence from Houston, Texas

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Keith Burau, PhD

Abstract: To cope with the rising number of uninsured, communities around the country are pursuing a variety of strategies to expand local health care safety nets. One measure that has been suggested to evaluate what is working is primary care-related emergency department (ED) visits. In this paper, we evaluate the applicability of this measure as an access indicator by examining its correlation with other indicators of medical under-service.

We obtained ED visit data from safety net hospitals in Houston, Texas and applied the New York University ED Algorithm to estimate the rate of visits that were primary care-related. We then examined at the ZIP code level the correlation of primary care-related ED visits per 1,000 population with the federal government's Index of Medical Underservice (IMU), the poverty rate, and the uninsurance rate.

Primary care-related ED visits were found to be weakly correlated with the IMU and strongly correlated with the rate of uninsurance and poverty. These findings suggest that the combination of this indicator with other measures of access could be used to monitor and evaluate local initiatives designed to expand care and coverage to the medically underserved.

Key words: Uninsured, access, safety net, evaluation.



“THE FINDINGS:”

- **54.5% OF ALL ED VISITS BY HARRIS COUNTY RESIDENTS WERE “NON-OPTIMAL” IN 2002.**

Who Uses Hospital Emergency Rooms? Evidence from Houston/Harris County Texas

Charles E. Begley, PhD
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Abstract: One of the factors thought to be causing hospital emergency room (ER) crowding is excessive use of the ER by the uninsured, who may lack access to other sources of care. This is a particular concern in Texas. We completed a survey in Houston/Harris County, Texas, addressing whether the uninsured are high users of the ER, and the role of financial concerns in choosing a venue for care. We found no evidence that the uninsured were higher users of the ER. Financial and insurance concerns discouraged ER use. Emergency room use was higher for Black/Non-Hispanics and those with a new medical condition. The findings provide support for ER diversion strategies that focus on providing high quality primary care and urgent care center alternatives to the ER, particularly in the Black/Non-Hispanic community.

Key words: ER use, indigent care, primary care, uninsured.



“THE FINDINGS:”

- **“...PROVIDE SUPPORT FOR ER DIVERSION STRATEGIES THAT
FOCUS ON PROVIDING HIGH QUALITY PRIMARY CARE AND
URGENT CARE CENTER ALTERNATIVES TO THE ER...”**

“A PARTIAL SOLUTION?”

- REDIRECT PATIENTS TO MORE APPROPRIATE SOURCES OF UNSCHEDULED HEALTH CARE, AND HELP THEM BACK INTO THE SYSTEM.
- EMERGENCY TELEHEALTH AND NAVIGATION
- AKA “ETHAN”

>2.1M population
>600 miles²

Houston, TX

>250k EMS calls
>300 transports/day

100+ Fire Stations
>3500 personnel

>250k EMS calls
>300 transports/day

100+ Fire Stations
>3500 personnel



911 CALL



FIRST RESPONDER



AMBULANCE



PARAMEDIC SQUAD



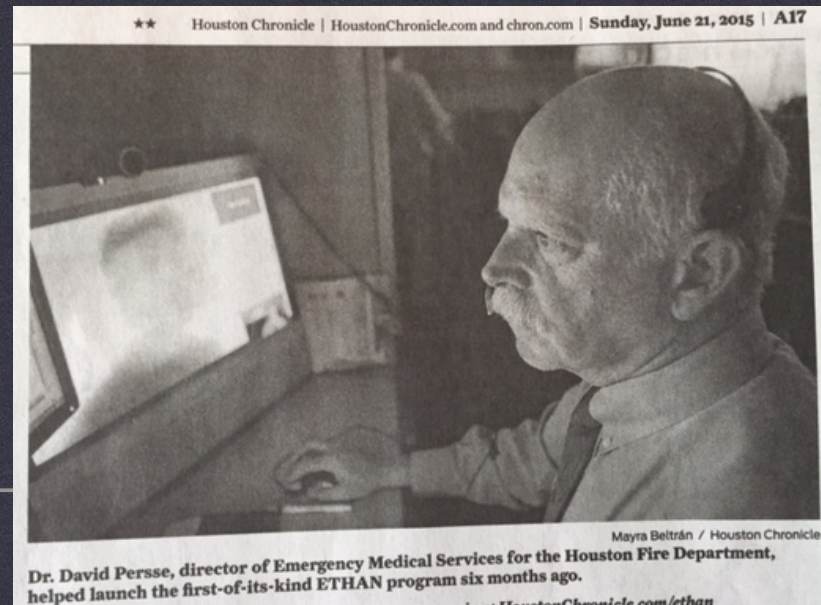
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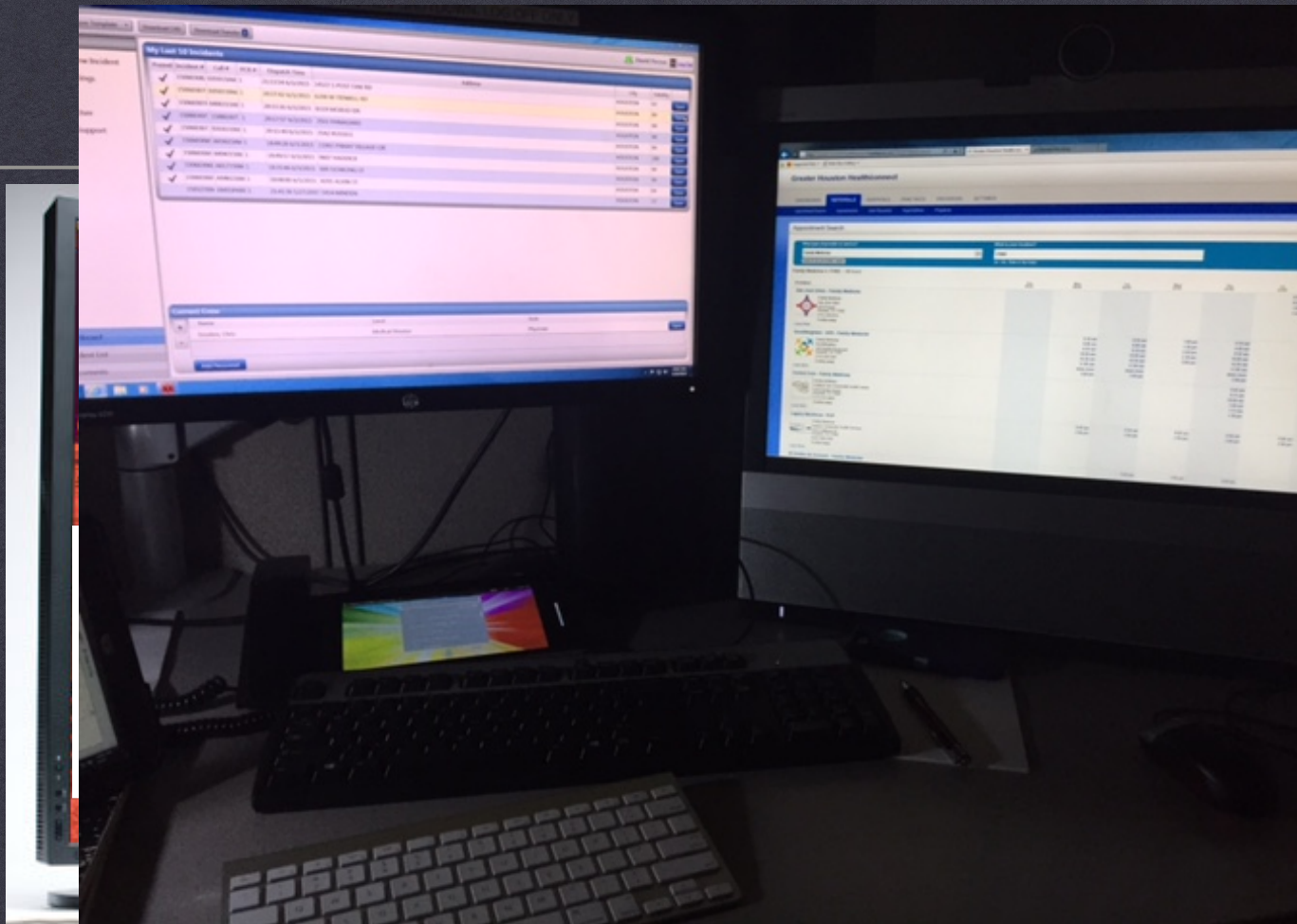


ETHAN PHYSICIAN

INTERACTION

- * PATIENT
- * EMT/PARAMEDICS
- * ETHAN PHYSICIAN
- * BASE STATION
- * CARE HOUSTON LINK
- * CLINIC FOLLOWUP





ETHAN WORKSTATION

ETHAN DISPOSITION

- MD Referral to ER
- MD Referral to Clinic Appt
 - Patient agree
 - Taxi or POV
 - Patient refuse
 - Taxi to ER
- MD Referral for Followup, as needed
 - Home Care instructions
 - Patient agree
 - Patient refuse -> taxi ER



ETHAN - CARE HOUSTON

- * FOLLOWUP CALL
- * ARRANGES CLINIC VISIT
- * TAXI VOUCHER
- * CONNECTS WITH RESOURCES AS NEEDED
- * ESTABLISHES MEDICAL HOME



ETHAN - EARLY RESULTS

ETHAN Operation Report
December 16, 2014-September 13, 2015

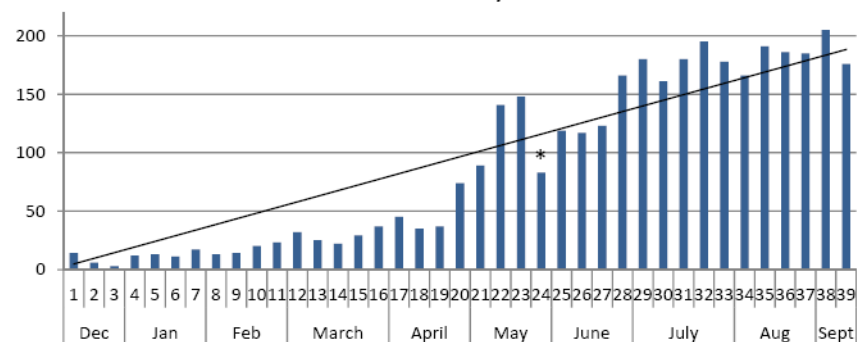
Total
Number of
Patients
3,473

% ER
Transport
18%

Weekly
Volume
Stable

ETHAN Disposition	# Patients	%
Patient Declined Referral - Cab to ER	1,951	56%
Referral to ER (Transport)	642	18%
Referral to ETHAN Clinic Partner	352	10%
Referral to Patient PCP/Home Care	257	7%
Unable to Complete Due to Technical Issues	61	2%
Other	210	6%
Grand Total	3,473	100%

Patient Volume by Week



* Memorial Day Holiday and major floods

FINANCES

- * CAB = \$35
- * AMBULANCE =\$1000+
- * EMERGENCY DEPARTMENT VISIT = \$1354*
- * ETHAN CLINIC PARTNER = \$110
- * 95+/-% SAVINGS;

* <https://aharesourcecenter.wordpress.com/2011/07/27/whats-the-average-cost-for-an-er-visit/>

BENEFACTORS

- * HEALTH CARE PAYORS
- * PATIENTS
- * EMERGENCY CARE SYSTEMS
- * EMS

ETHAN PARTNERS

- HARRIS COUNTY HEALTHCARE ALLIANCE
- UT-SCHOOL OF PUBLIC HEALTH
- RICE UNIVERSITY EHRI/BRC
- GREATER HOUSTON HEALTHCONNECT
- CARE HOUSTON: HEALTH DEPT., HOUSTON FIRE DEPT.
- LOCAL COMMUNITY HEALTH CENTERS, FQHCS
- HARRIS COUNTY RIDES (YELLOW CAB)
- CLINTON HEALTH MATTERS INITIATIVE
- CISCO
- PANASONIC