

Houston Fire Department 911 Nurse Triage Project Year 2 Summary

June 30, 2009-June 30, 2010



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HARRIS COUNTY
HEALTHCARE ALLIANCE

*Serving as a catalyst
for improving the
healthcare system of
Houston/Harris County*

Creating a Community Nurse Triage Operation
Harris County Healthcare Alliance
December 2010

COLLABORATORS



HARRIS COUNTY
HEALTHCARE ALLIANCE

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HISTORY

2006

2007

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- U. T. School of Public Health ED Utilization Study¹ showed large numbers of primary care related (PCR) emergency department visits.
- Based on years of research and analysis, HFD determined that a significant number of 911 calls were non-emergent.
- Nurse triage programs explored as a way to improve efficiency by assisting patients in accessing appropriate and timely care, as opposed to seeking care in hospital ERs.
- HCHD-Ask Your Nurse (AYN) Program created in 2000 and Intended to be a 24/7 community nurse triage operation publicized.
- AYN was demonstrating success in diverting ER visits- - benefitting all hospitals and EMS.
- HFD interested in partnering with HCHD-AYN to pilot a 911 call diversion program
- Alliance facilitated discussions among HFD, HCHD-AYN, GTC and other hospitals regarding a single Community Nurse Triage Operation (CNTO).

ESTIMATED COST OF UNINSURED PCR VISITS = \$66.5 M
SAME VISITS IN AN OFFICE-BASED SETTING = \$14.4 M
OVER \$50 MILLION IN SAVINGS TO THE COMMUNITY

¹http://www.sph.uth.tmc.edu/uploadedFiles/Centers/CHSR/HSRC/April_3_summary.pdf

HISTORY, continued

2008

2009

4

- To meet HFD needs, AYN needed to upgrade phone system and software - a then unbudgeted expense. AYN unable to meet the immediate needs of HFD.
- Harris County Healthcare Alliance facilitated the selection of nurse triage option to meet HFD's needs.
- JUNE 30, 2008 -HFD PILOT LAUNCHED as 1st step toward CNTO vision.
- JUNE 30, 2009 -HFD LAUNCHED YEAR 2.
- November 2009 : Launch of the "alternate transportation" pilot: provided a no-cost (to the patient), one-way cab ride to the most appropriate level of care for qualified callers through a contract with Harris County RIDES.
- November 2009: launch of the "clinic appointment" pilot utilizing a \$250,000 grant from the City of Houston's Contractor Responsibility Fund, allowed the triage nurses to schedule clinic appointments for qualified callers at the area's 13 Alliance-member community clinics via My Health Direct.
- December 2009: Expansion of Alternative Transportation Pilot to 'See ED Immediately'

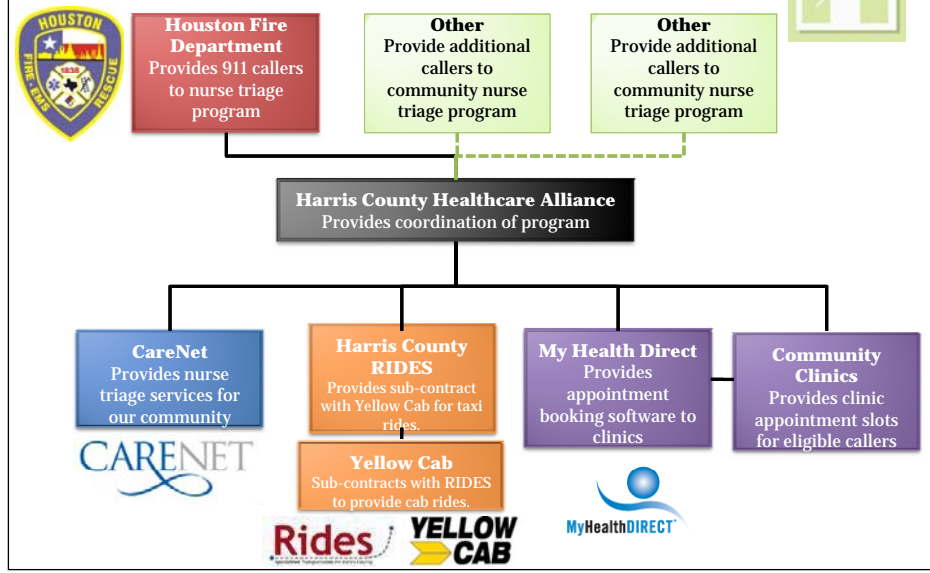
HISTORY, continued

2010

Moving Forward

- April 2010: Launch of the Field Call Pilot, which opened the triage program to EMS personnel in the field.
- This enhancement was intended to increase the volume of referred calls for the program.
- JUNE 30, 2010 -HFD LAUNCHED YEAR 3.
- Continue to increase triage call volume from dispatch and field.
- Continue to fund the alternate transportation program.
- Develop strategies to increase clinic utilization.

Nurse Triage Contract Diagram



NURSE TRIAGE PILOT DESCRIPTION

THE PROGRAM IS DESIGNED TO TRIAGE 911 CALLERS WITH NON-EMERGENT PROBLEMS TO EXPERIENCED TELE-HEALTH NURSES AND COMMUNITY NAVIGATORS WHO THEN CONNECT THESE CALLERS WITH MORE APPROPRIATE SOURCES AND LEVELS OF CARE.

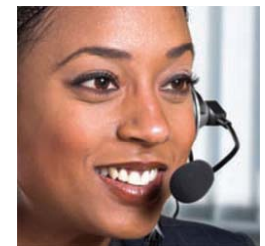


Non-emergent 911 calls deplete the already scarce resources able to respond to real, "life-threatening" emergencies.

OBJECTIVES

1. Demonstrate Success--
diversion rates, connection with medical homes, call response rates and customer satisfaction

2. Expand financial and advisory support from other hospitals and stakeholders



QUALITY AND TIMELY CARE IN THE MOST APPROPRIATE SETTING

OVERALL GOAL IS TO DEMONSTRATE SUCCESS MEASURED BY:

- CONNECT CALLERS WITH MEDICAL HOMES AS NEEDED
- DECREASE INAPPROPRIATE AMBULANCE DISPATCHES
- IMPROVE AMBULANCE CALL RESPONSE TIMES

While an important incentive for diverting individuals with non-emergent needs from the ED is cost-effectiveness, the 911 program is also focused on ensuring these callers are provided quality and timely care in the most appropriate setting.

911 EMERGENCY CALL TYPES

- Emergency medical dispatchers (EMD), using the computer-assisted medical priority dispatch system, interview callers in order to determine the location, nature, and priority of the caller's situation. The calls are then classified into EMS Event Types.
- There are 44 different EMS Event Types classified by the medical priority dispatch system—the program began conservatively, allowing only 2 call types eligible for referral.
- There are currently 5 call types being used for referral to the triage nurse.

NURSE TRIAGE EMERGENCY CALL TYPES AVAILABLE

- ABDOMINAL PAIN
- SICK PERSON
- ALLERGIC REACTION
- HEADACHE
- PEDIATRIC FEVER

CURRENT STATUS

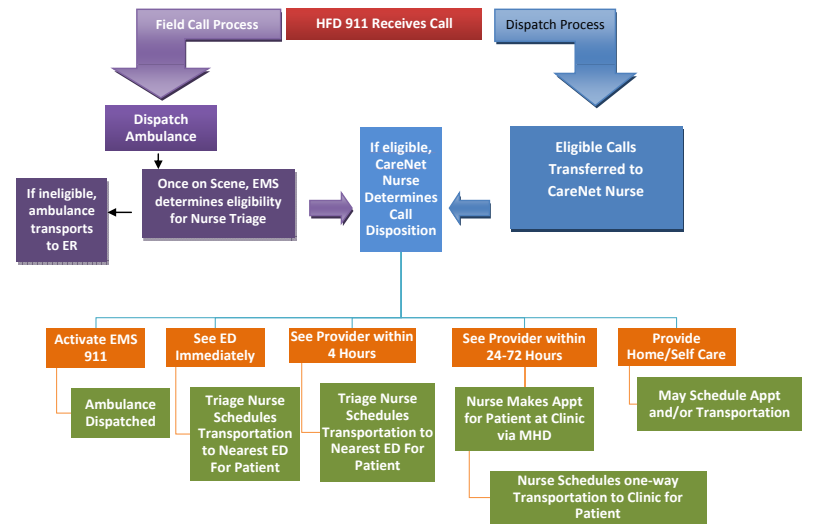
Year 1

- 4283 THN Calls
- 78% Ambulance Dispatch (3358)
- 22% Successful Referrals (925)
- \$2.1M Cost Savings to the system*
- \$1.6M Cost Savings (\$500k Net Savings) to HFD*

Year 2

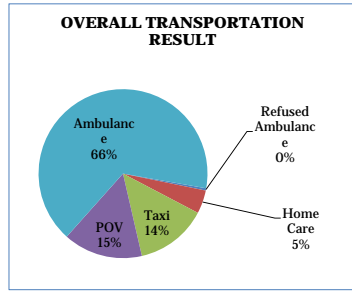
- 4595 THN Calls
- 63% Ambulance Dispatch (2885)
- 37% Successful Referrals (1710)
- 17% Diverted from an Ambulance to Taxi (783)
- \$4M Cost Savings to the system*
- \$3M Cost Savings (\$1.9M Net Savings) to HFD*

YEAR 2 CALL PROCESS



DISPATCH RESULTS

DISPOSITION BREAKDOWN	# OF CALLS	% OF TOTAL
See ED Immediately	1747	40.93%
Activate EMS 911	713	16.71%
No Services Provided	709	16.61%
See Provider within 4 hours	424	9.93%
See Provider within 24 hours	281	6.58%
Provide Home/Self Care	196	4.59%
See Provider within 72 Hours	101	2.37%
Call Provider Immediately	33	0.77%
See Provider within 2 Weeks	22	0.52%
Call Provider within 24 Hours	15	0.35%
Other	27	0.63%
Total	4268	100%



VOLUME

- 4268 Total Dispatch THN Calls
- 1444 (or 34%) Resulted in no ambulance dispatch

GROSS SAVINGS

- \$3.3M* "to the system"
- \$2.5M* to HFD

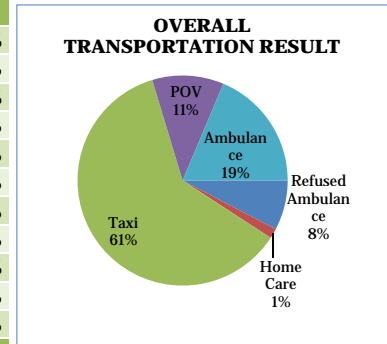
RESULTS

- 583 (or 14%) of callers diverted to taxi rides
- 5 of 30 booked clinic appts attended

Note: No Services Provided - Incomplete nurse triage process due to caller refusing triage, hung up, disconnected.
 *Using \$1750 for HFD cost and \$560 for ER cost

FIELD RESULTS

DISPOSITION BREAKDOWN	# OF CALLS	% OF TOTAL
See ED Immediately	121	37.00%
No Services Provided	51	15.60%
Activate EMS 911	12	3.67%
See Provider within 4 hours	66	20.18%
See Provider within 24 hours	37	11.31%
Provide Home/Self Care	7	2.14%
See Provider within 72 Hours	12	3.67%
Call Provider Immediately	6	1.83%
See Provider within 2 Weeks	1	0.31%
Call Provider within 24 Hours	2	0.61%
Other	12	3.67%
Total	327	100%



VOLUME

- 327 Total THN Field Calls
- 226 (or 69%) Resulted in no ambulance dispatch

GROSS SAVINGS

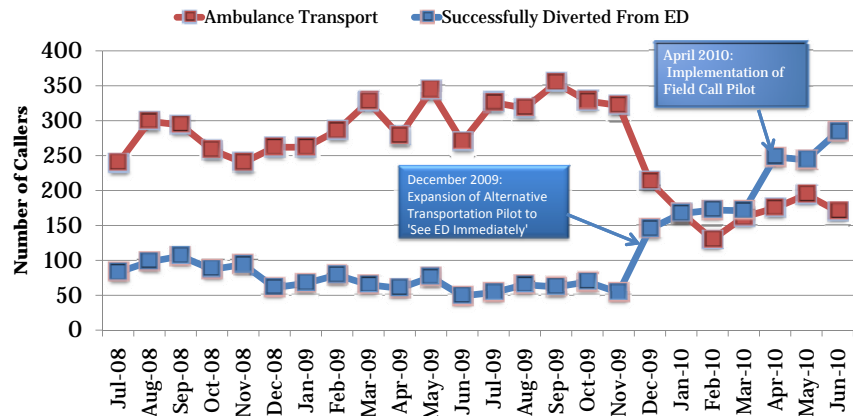
- \$522k* "to the system"
- \$396k* to HFD

RESULTS

- 200 (or 61%) of callers diverted to taxi rides
- 2 of 30 booked clinic appts attended

Note: No Services Provided - Incomplete nurse triage process due to caller refusing triage, hung up, disconnected.
 *Using \$1750 for HFD cost and \$560 for ER cost

SUCCESS OF ALTERNATE TRANSPORTATION AND FIELD CALL PILOTS

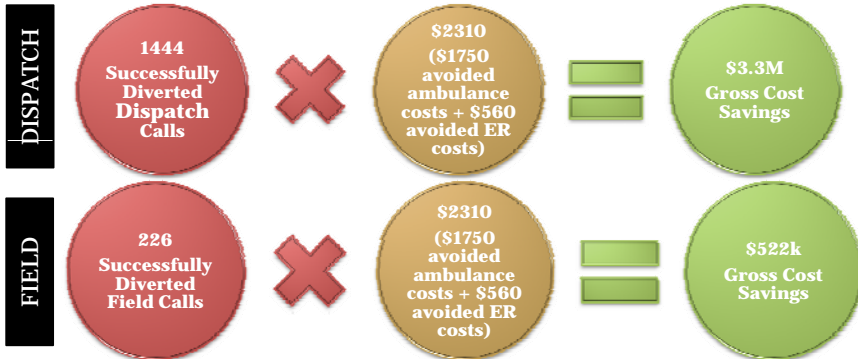


ALTERNATE TRANSPORTATION PILOT SUCCESS: SIGNIFICANT COST SAVINGS



An ambulance dispatch costs approximately \$1750, whereas a taxi ride costs approximately \$28 hence, there is a cost savings of \$1722 per diverted ambulance ride.

OVERALL PROGRAM COST SAVINGS

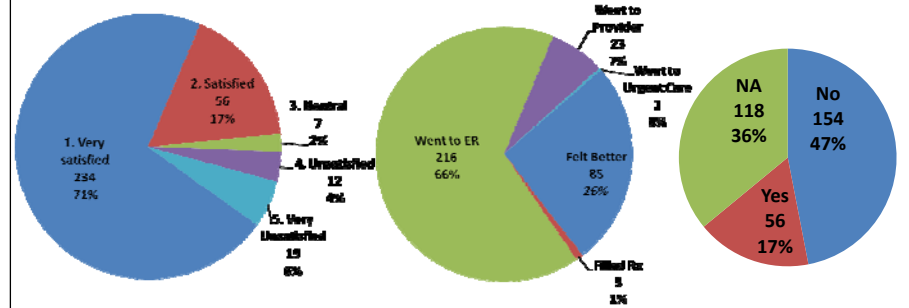


\$4M Gross Savings "to the system"
\$3M Gross Savings to HFD

Net Savings to HFD = \$1.9M

NURSE TRIAGE SATISFACTION*

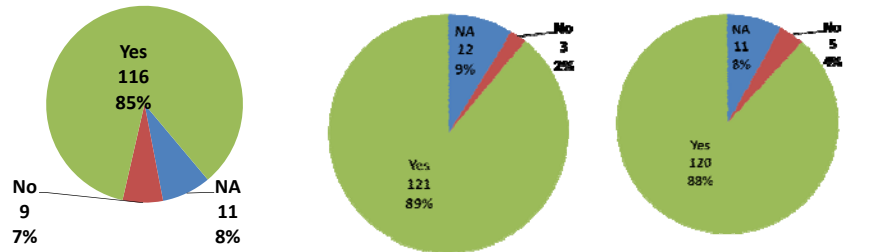
Satisfaction Rate: 88% Very Satisfied/Satisfied **Outcome: 66% Still Went to the ER** **Outcome: Only 17% Admitted to ER**



*Source: CareNet satisfaction and outcome survey results; self reported

VERY SATISFIED WITH ALTERNATE TRANSPORTATION SERVICES*

85% Timely Pick Up **89% Courteous Driver** **88% Satisfaction Rate**



*Source: RIDES satisfaction and outcome survey results; self reported