CASPER the Friendly Flu Assessment

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Objectives

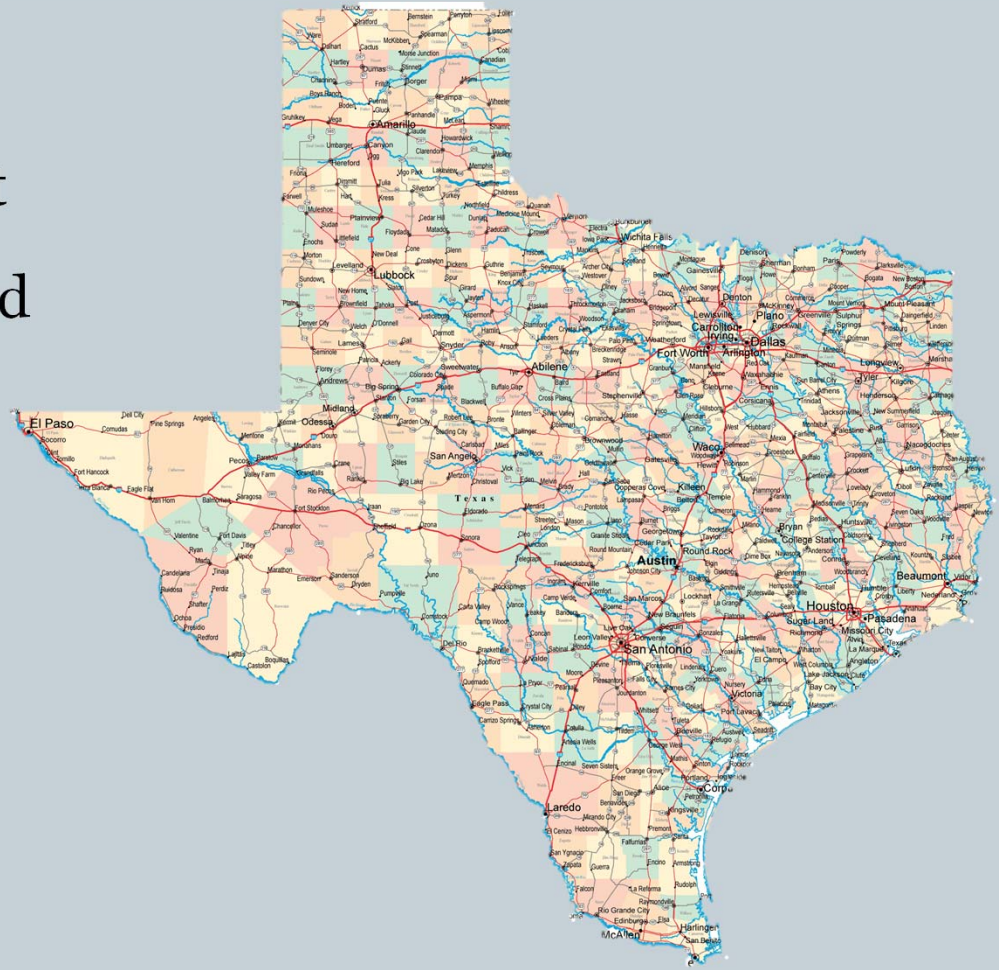
- Describe what is a CASPER (Community Assessment For Public Health Emergency Response);
- Describe how a CASPER related to influenza and vaccines was conducted in a Texas county;
- Describe how Texas is building capacity of public health officials to conduct CASPERs and;
- Identify resources on CASPER and other disaster epidemiology tools

Outline

- Public health in Texas
- What is CASPER?
- Influenza CASPERs
  - Objectives
  - Methods
  - Results
  - Actions/Benefits
- Building CASPER capacity in Texas
- Disaster epidemiology resource

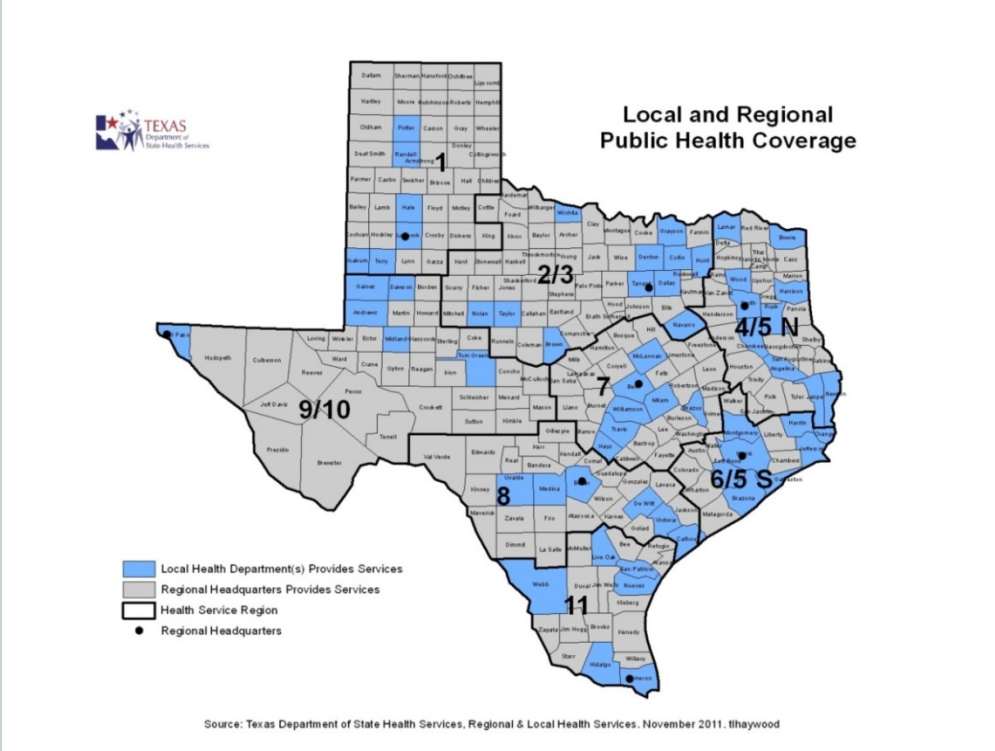
Texas Background

- ~27 million population
- Contains 3 of the 10 largest cities in the nation (Houston, San Antonio, and Dallas)
- 254 counties (*population range from 60 – 3.9 million)*
- Roughly 800 x 800 miles
- Public health system is complex



Public Health in Texas

- Responsible for oversight and implementation of public health and behavioral health services
- The state level system includes 8 health service regions
- Regions are responsible for public health services in those areas not served by local health departments
- 144 local health departments or districts
  - 63 “Full Service”
  - 81 “Limited Services”

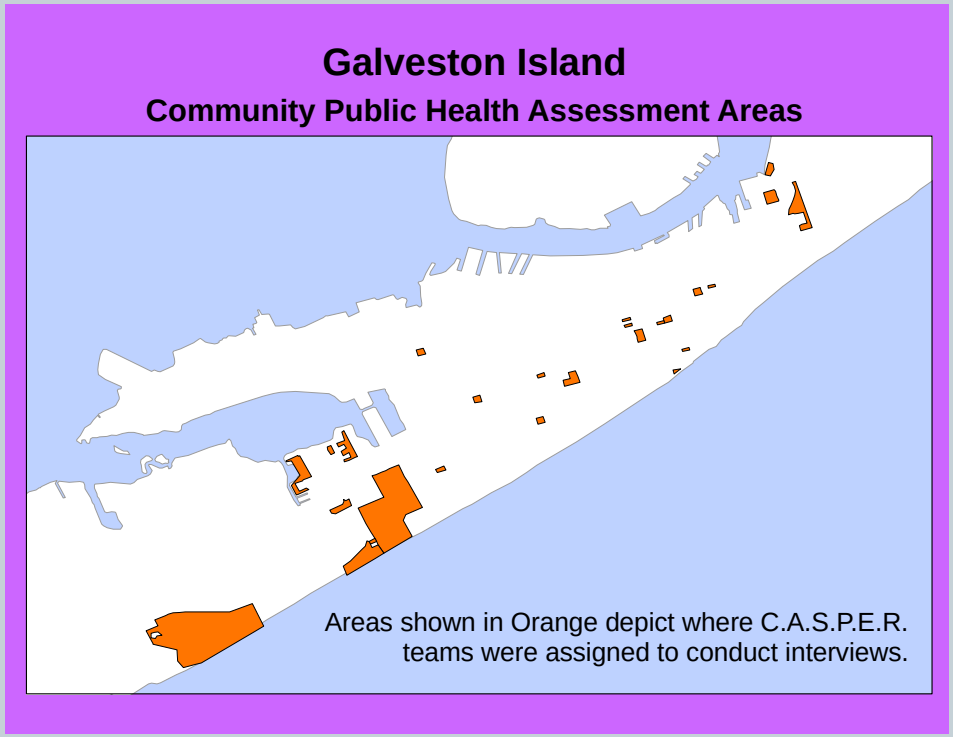


CASPER Definition

Epidemiologic Technique designed to provide quickly and at low cost, <u>household-based</u> information about an affected community's needs in disaster or non-disaster settings

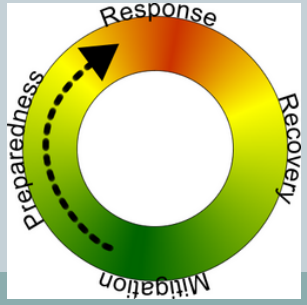
CASPER Characteristics

- Goal – 210 Interviews Completed in 1-2 Days
- ~10 Interview Teams (2-3 Persons per Team)
- Sampling used to pick households to interview
  - 30 Clusters
  - 7 Interviews in Each Cluster



Uses of CASPER

- Preparedness Phase
  - Evacuation plans
  - Personal readiness plans
  - Communications
- Response Phase (2-14 Days Following Disaster)
  - Needs change fast days/weeks after disaster
  - Communications
- Recovery Phase (3 weeks – 1 year Following Disaster)
  - Assess Long-term or ongoing needs
  - Evaluate response efforts or programs



Advantages of CASPER

- Generalizable date (population based estimates)
- Raises visibility of public health
- Reassures people they are not forgotten
- Simple reporting format
- Relatively low cost (aside from personnel costs)
- Timely
- Flexible

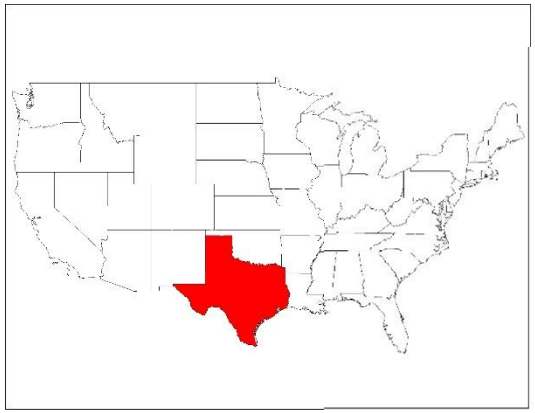
Impact of Past CASPERs

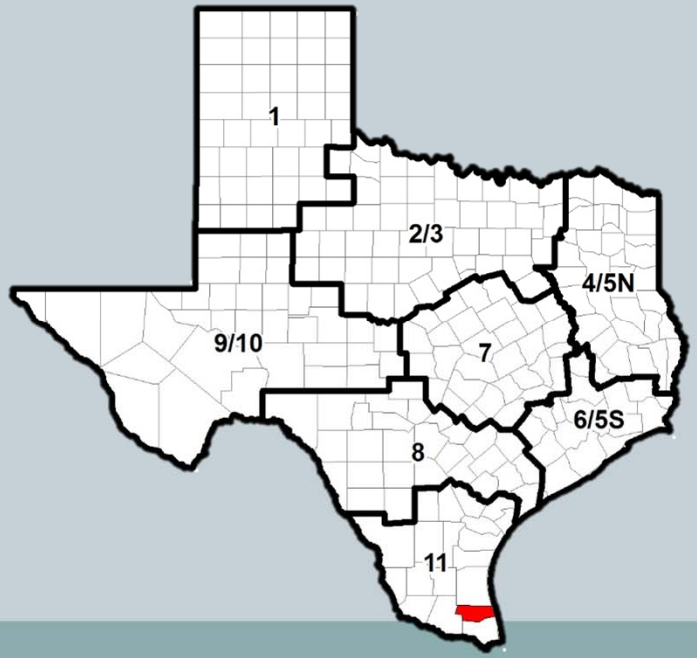
- Resources
  - Informs to allocate scarce resources
  - Data cited to support requests/needs
  - Respond to specific needs (e.g. O2 dependent individuals, Rx)
- Support
  - Provide valid information to governors, news media, etc.
  - Support funding of projects
  - Confirm suspected need for services (e.g. mental health needs)
- Messaging
  - Target communication messages
- Future Planning
  - Prompted modification of emergency management plans
  - Identify where education needed in the community

CASPER in Willacy County

2010 AND 2011

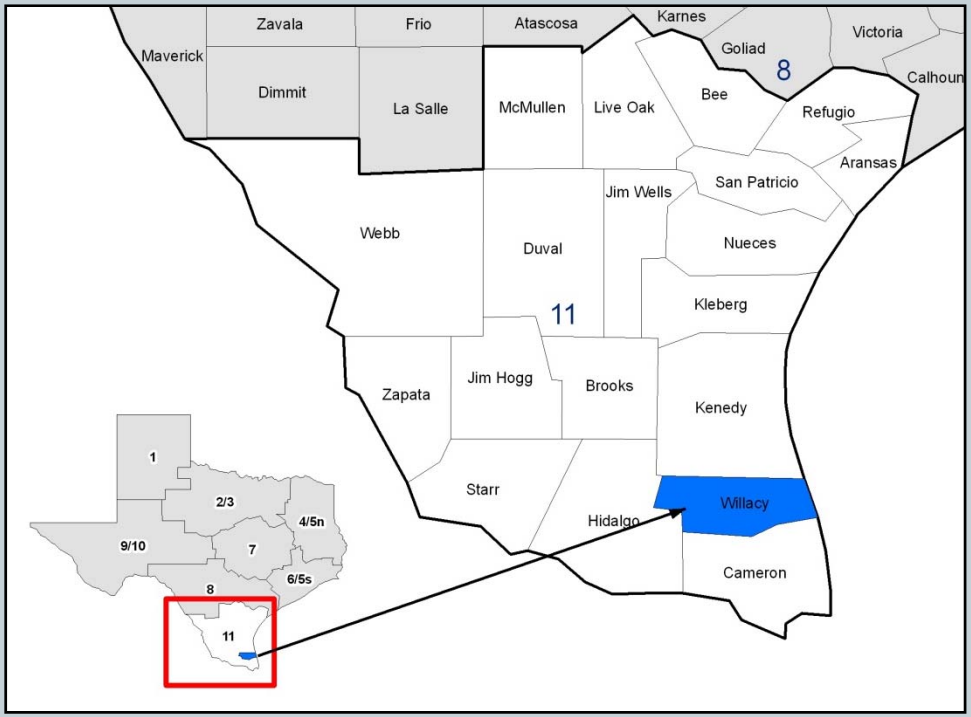
Flu CASPER





CASPER in Willacy County 2010 and 2011

An initiative by Health Service Region 11 Harlingen to assess influenza knowledge and practices in one county in response to H1N1 Pandemic



Why Willacy County?

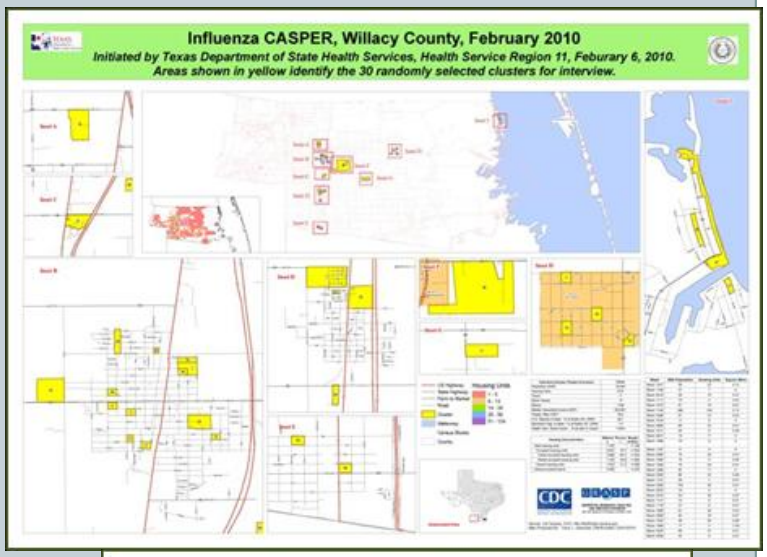
- A south Texas county with ~20,000 population
- Public health services provided by health service region
- Low participation in 2 day H1N1 vaccination POD held in December 2009
- Interest to learn more about the community's knowledge, attitudes, and practices regarding influenza vaccination
- Opportunity to exercise a response capability in a non-disaster setting

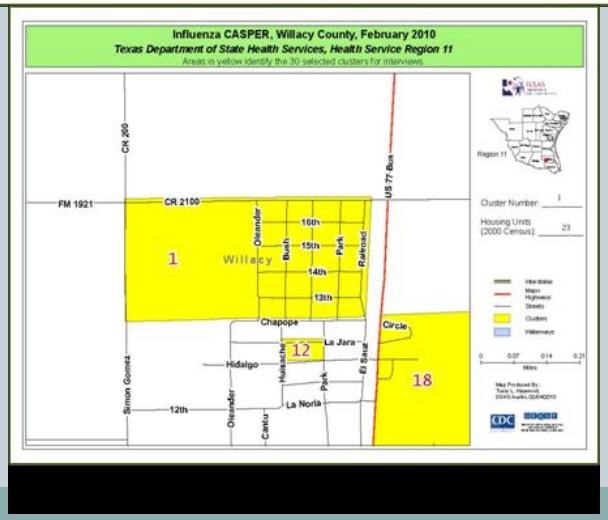
Assessment Objectives

- To obtain information about residents' attitudes toward seasonal influenza vaccination and H1N1 vaccination
- To determine whether they had received either or both vaccinations
- To identify perceived barriers to vaccination
- To provide direction for future outreach and educational efforts in the community
- To complete approximately 210 household interviews in 2010 AND in 2011

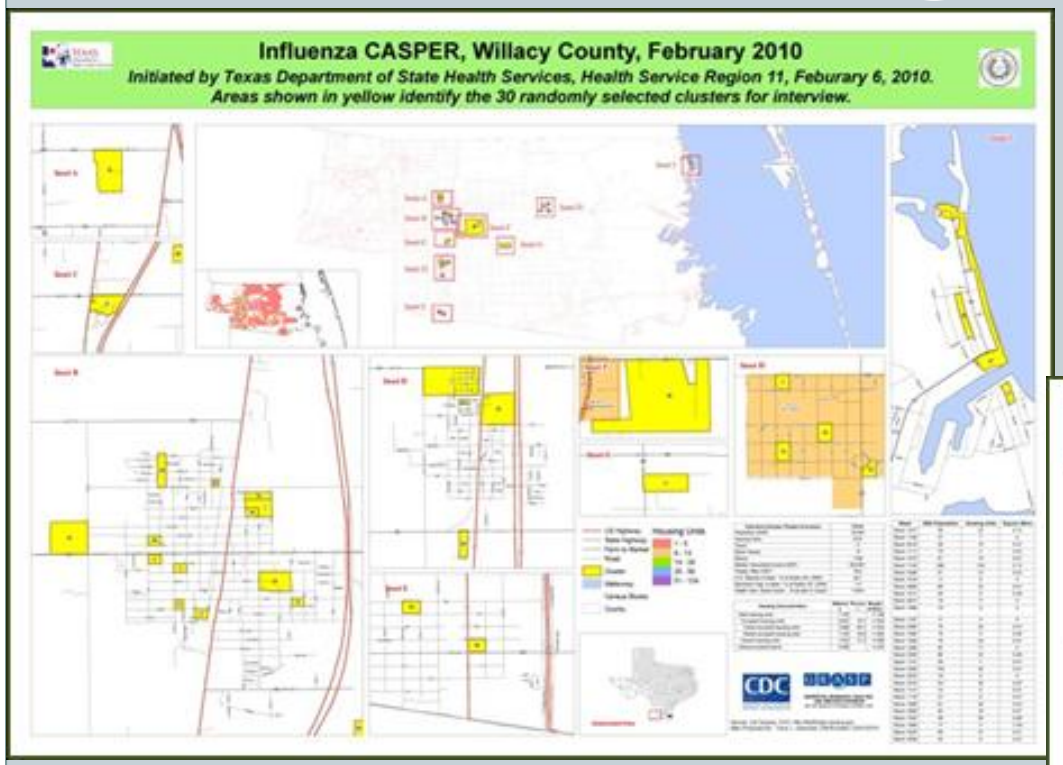
Sampling

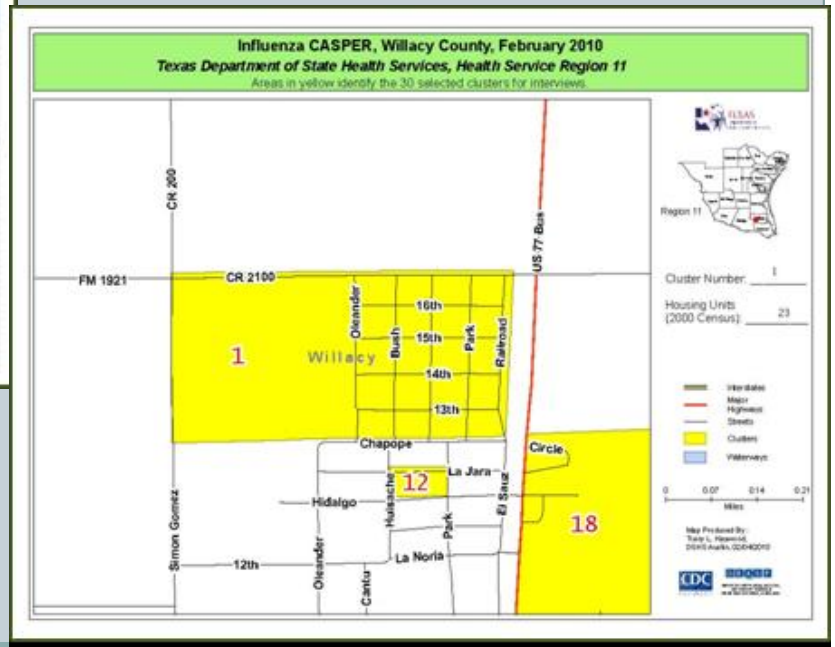
- Using GIS and Census Data
- Selected 30 clusters in the community *(probability proportionate to size)*
- Maps generated of those areas
- Between 12 - 14 two-person teams sent to those areas to randomly selected 7 houses to interview





Maps


Influenza CASPER, Willacy County, February 2010
Initiated by Texas Department of State Health Services, Health Service Region 11, Feburary 6, 2010.
Areas shown in yellow identify the 30 randomly selected clusters for interview.
CDC


Influenza CASPER, Willacy County, February 2010
Texas Department of State Health Services, Health Service Region 11
Areas in yellow identify the 30 selected clusters for interview.
CR 200
FM 1921
CR 2100
US 77 Bus
Oleander
Bush
Park
Railroad
16th
15th
14th
13th
1
Willacy
Chapope
La Jara
12
Circle
18
Hidalgo
Huisache
El Saus
Simon Gomez
12th
La Noria
Cantu
Region 11
Cluster Number:
Housing Units (2000 Census)
23
Interstates
Major Highways
Streets
Clusters
Waterways
Miles
CDC

CASPER Team

- 15 Teams
- Bilingual person on each team
- Teams from:
  - DSHS Regional Office
  - DSHS Central Office
  - Local Health Depts
  - CDC
  - Contractors

Preparing for the Field

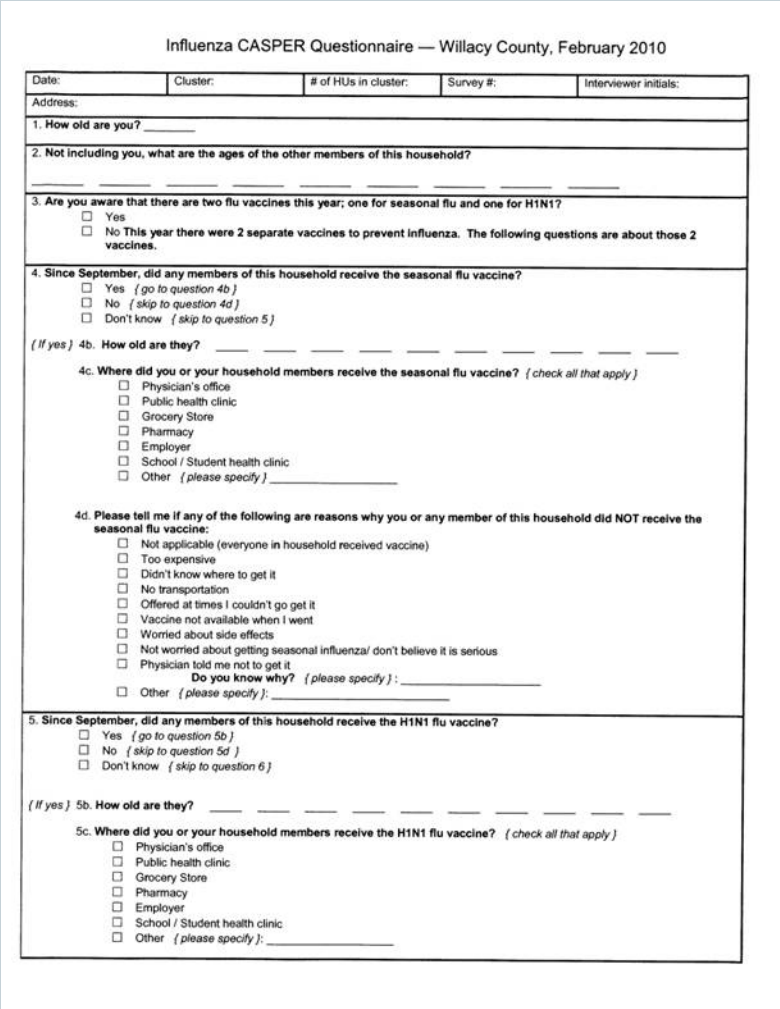
- Used Epi Info
  - Free
  - Available to everyone
- Created questionnaire
  - Pilot tested
  - Entered into Epi Info
- Created Epi Info database
- Organized and trained teams
- Provided supplies

ARK bag, and Coolers

Araceli Rey and Vivienne Heines finalizing the Database

Questionnaire

- Standardized 1 page
  - English and Spanish
  - H1N1 and Seasonal Flu Focus
  - Knowledge and perceptions
- Goal: 210 completed in 1 day



Influenza CASPER Questionnaire — Willacy County, February 2010

Date:	Cluster:	# of HUs in cluster:	Survey #:	Interviewer initials:
Address:				

1. **How old are you?** _____

2. **Not including you, what are the ages of the other members of this household?**

_____ _____ _____ _____ _____ _____ _____ _____ _____

3. **Are you aware that there are two flu vaccines this year; one for seasonal flu and one for H1N1?**
   - ☐ Yes
   - ☐ No **This year there were 2 separate vaccines to prevent influenza. The following questions are about those 2 vaccines.**

4. **Since September, did any members of this household receive the seasonal flu vaccine?**
   - ☐ Yes *{ go to question 4b }*
   - ☐ No *{ skip to question 4d }*
   - ☐ Don't know *{ skip to question 5 }*

{ If yes } 4b. **How old are they?** ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

4c. **Where did you or your household members receive the seasonal flu vaccine?** *{ check all that apply }*
- ☐ Physician's office
- ☐ Public health clinic
- ☐ Grocery Store
- ☐ Pharmacy
- ☐ Employer
- ☐ School / Student health clinic
- ☐ Other *{ please specify }* _____

4d. **Please tell me if any of the following are reasons why you or any member of this household did NOT receive the seasonal flu vaccine:**
- ☐ Not applicable (everyone in household received vaccine)
- ☐ Too expensive
- ☐ Didn't know where to get it
- ☐ No transportation
- ☐ Offered at times I couldn't go get it
- ☐ Vaccine not available when I went
- ☐ Worried about side effects
- ☐ Not worried about getting seasonal influenza/ don't believe it is serious
- ☐ Physician told me not to get it
  Do you know why? *{ please specify }* : _____
- ☐ Other *{ please specify }*: _____

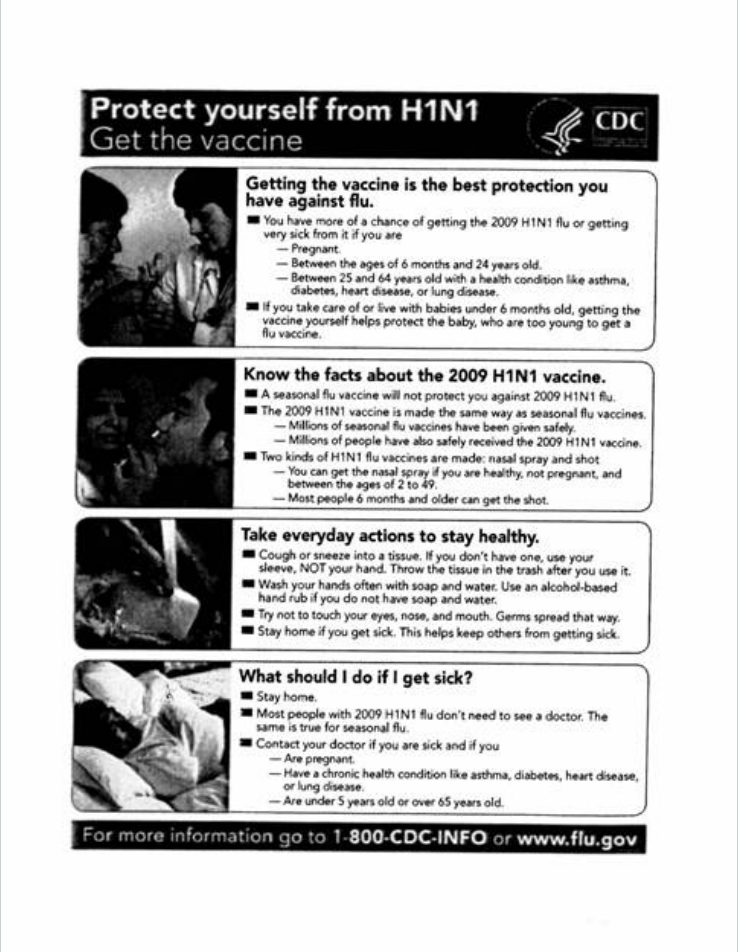
5. **Since September, did any members of this household receive the H1N1 flu vaccine?**
   - ☐ Yes *{ go to question 5b }*
   - ☐ No *{ skip to question 5d }*
   - ☐ Don't know *{ skip to question 6 }*

{ If yes } 5b. **How old are they?** ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

5c. **Where did you or your household members receive the H1N1 flu vaccine?** *{ check all that apply }*
- ☐ Physician's office
- ☐ Public health clinic
- ☐ Grocery Store
- ☐ Pharmacy
- ☐ Employer
- ☐ School / Student health clinic
- ☐ Other *{ please specify }*: _____

Goodie Bags

- Ziploc Document Bag
- Information sheets
  - Influenza and H1N1 FAQs
  - "Ready or Not" Preparedness information
  - 211
- All materials in English and Spanish



Protect yourself from H1N1
Get the vaccine

CDC

Getting the vaccine is the best protection you have against flu.

- You have more of a chance of getting the 2009 H1N1 flu or getting very sick from it if you are
  - Pregnant.
  - Between the ages of 6 months and 24 years old.
  - Between 25 and 64 years old with a health condition like asthma, diabetes, heart disease, or lung disease.
- If you take care of or live with babies under 6 months old, getting the vaccine yourself helps protect the baby, who are too young to get a flu vaccine.

Know the facts about the 2009 H1N1 vaccine.

- A seasonal flu vaccine will not protect you against 2009 H1N1 flu.
- The 2009 H1N1 vaccine is made the same way as seasonal flu vaccines.
  - Millions of seasonal flu vaccines have been given safely.
  - Millions of people have also safely received the 2009 H1N1 vaccine.
- Two kinds of H1N1 flu vaccines are made: nasal spray and shot
  - You can get the nasal spray if you are healthy, not pregnant, and between the ages of 2 to 49.
  - Most people 6 months and older can get the shot.

Take everyday actions to stay healthy.

- Cough or sneeze into a tissue. If you don't have one, use your sleeve, NOT your hand. Throw the tissue in the trash after you use it.
- Wash your hands often with soap and water. Use an alcohol-based hand rub if you do not have soap and water.
- Try not to touch your eyes, nose, and mouth. Germs spread that way.
- Stay home if you get sick. This helps keep others from getting sick.

What should I do if I get sick?

- Stay home.
- Most people with 2009 H1N1 flu don't need to see a doctor. The same is true for seasonal flu.
- Contact your doctor if you are sick and if you
  - Are pregnant.
  - Have a chronic health condition like asthma, diabetes, heart disease, or lung disease.
  - Are under 5 years old or over 65 years old.

For more information go to 1-**800-CDC-INFO** or **www.flu.gov**

Results

Metric	2010	2011
Number of Houses Approached	379	320
Number of Interviews Completed	146	134

Results

Characteristic	2010 * (n=146)	2011 * (n=134)
Received flu vaccine in current flu season	55.1	65.1
Received flu vaccine in previous years	74.2	71.9
Vaccination Location		
Physician's office	35.4	50.5
Grocery Store	0.0	0.5
Public Health Clinic	11.0	12.2
Employer	2.6	2.0
Pharmacy	1.2	3.9
School/Student health clinic	9.1	1.8
Other	4.1	2.5

** % of households interviewed*

Results

Characteristic	2010* (n = 146)	2011* (n = 134)
Reasons for not receiving vaccine		
Vaccine expensive/cost	12.0	15.2
No transportation to vaccination site	0.5	6.4
Offered at inconvenient times	5.1	24.0
Vaccine not available	4.5	6.6
Worried about side effects	14.6	32.4
Don't believe flu is serious illness/Not worried about becoming ill	19.2	26.7
Physician said not to get it	1.0	4.5
Other	28.5	47.5

** % of households interviewed*

Results

Characteristic	2010* (n = 146)	2011* (n = 134)
Factors considered to be very important when deciding to get vaccine		
Vaccine safety	65.5	79.5
Vaccine cost	23.5	54.3
Convenience of where vaccine is offered	48.1	74.0
Not wanting to become ill/fear of getting flu from someone	69.2	72.9
Concern about missing work/school due to flu illness	29.9	66.6
Concern about getting sick from family member with flu/whether someone in family recently had flu	38.2	72.7
Physician recommendation to get vaccine	54.3	89.0
Reading/hearing about dangers of getting sick with flu	59.6	88.3

** % of households interviewed*

Action Taken

- Advertised flu vaccines
- Provided dispensing times outside of normal business hours
- Distributed educational materials on vaccine safety

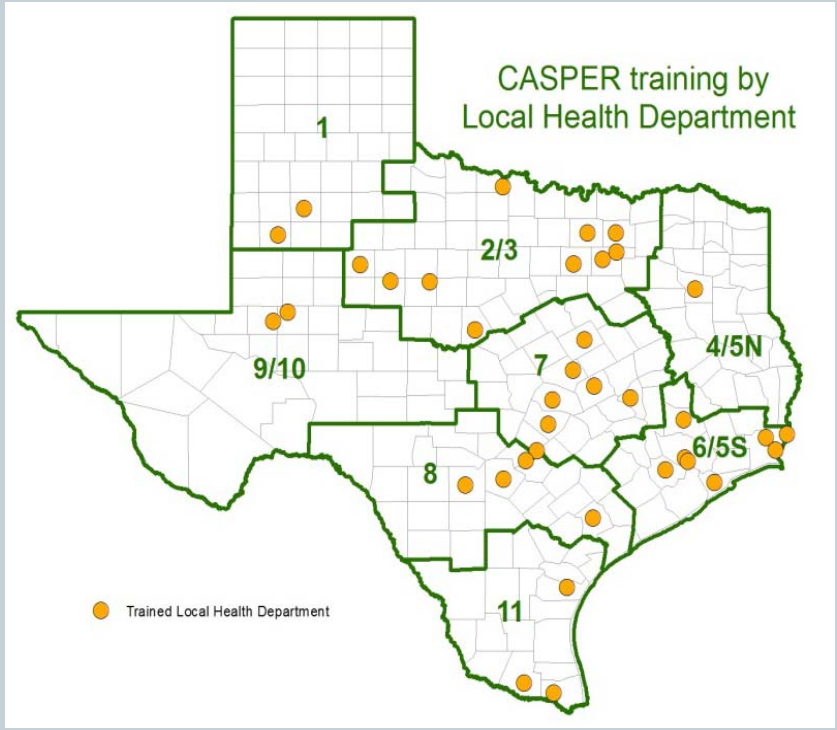
Benefits

- Exercise an emergency response function
- Assessed influenza knowledge and practices in one county
- Elevated the visibility of public health in the community
- Outstanding collaboration between local, regional, state and federal partners, thus increasing epidemiological capacity and preparedness at all levels

Building CASPER Capability

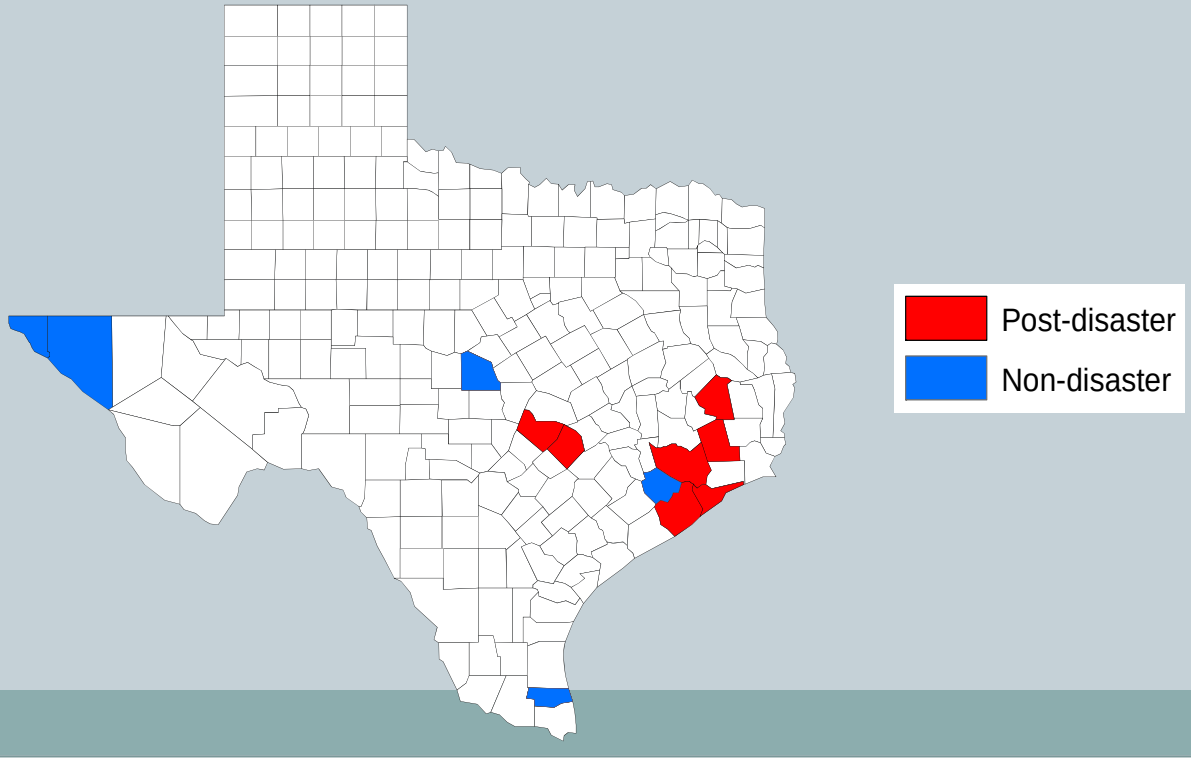
Building Capacity

- Seven regional trainings
  - Attended by 37 local health departments
  - 1 tribal agency
  - ~ 200+ people trained
- CASPER Team in CO
  - 30 people



CASPERs in Texas
2005 – 2015

- 9 post-disasters (*hurricanes, wildfire, flood*)
- 8 non-disasters (*influenza, general public health, preparedness, healthy eating/fitness*)



Resources

Pocket
Field
Guide
Mitigate Prepare Respond Recover
Department of
State Health
Services
CCLIV
Community Preparedness Section
Texas
CASPER
Strike
Team
May 2013

TEXAS
Department of
State Health Services
www.dshs.state.tx.us/commprep/disasterepi/casper.aspx
CASPER
Community Assessment for Public
Health Emergency Repsponse
Resources for Public
Health Officials

TTX – Chikungunya
Health Service Region 2/3

The exercise discussed how CASPER methodologies could be used to characterize a population residing in an affected area, and how CASPER data can be used to implement and evaluate mitigation strategies.

PHEP Capabilities and Disaster Epidemiology Crosswalk

Purpose: To provide resources to health departments on disaster epidemiology tools that are available to help meet the capabilities.

Table 1. PHP Capabilities and Linkages to Disaster Epidemiology

PHEP Capability	Function	Disaster Epidemiology Tools & Trainings	Linkage to Disaster Epidemiology
Capability 1: Community Preparedness	**1: Determine risks to the health of the jurisdiction** **2: Build community partnership to support public health preparedness**	**Hazard Risk Assessment Instrument** www.fachc.org/pdf/HRA_Instrument_Wbk(**UCLA**).pdf **How to Create a Partnership Between Your Public Health Agency and Area Hospitals** http://apc.naccho.org/Products/APC2005269/Pages/Overview.aspx **Responding to Chemical/Radiological Terrorism: Training Manual** http://apc.naccho.org/Products/APC2005105/Pages/Overview.aspx **Disaster Epidemiology 101: Applied Partnering with Epidemiologists During Disasters** http://disasterlit.nlm.nih.gov/record/9827 **Social Vulnerability Index** http://svi.cdc.gov/	Epidemiologists may be called upon when assessing public health threats (i.e. pandemic influenza, release of a bioterrorism agent) within their jurisdiction. Epidemiologists will be asked to analyze how these threats could affect the population and how to minimize the effects. The working relationships that epidemiologists have formed within their communities (i.e. physician's offices, schools, hospitals, laboratories) will be very helpful when planning for all hazards emergencies.
Capability 2: Community Recovery	**1: Identify and monitor public health, medical, and mental/behavioral health system recovery needs**	**CDC Public Health Assessment and Surveillance After a Disaster** http://emergency.cdc.gov/disasters/surveillance/pdf/CASPER_Toolkit_Version_2_0_508_Compliant.pdf	The most important part of the recovery process is determining what the community needs. Epidemiologists will have an important role in collecting data regarding chronic and

http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PDFs/Crosswalk_5.28.15.pdf

Council of State and Territorial Epidemiologists

Questions/Comments

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