ILI/Influenza Outbreak Reporting

- TAC RULE §97.3: “…any outbreak, exotic disease, or unusual group expression of disease that may be of public health concern should be reported by the most expeditious means”
- Anyone (e.g., medical providers, healthcare facilities, schools, etc.) who has knowledge of the outbreak is required to report
- Local health departments investigate outbreaks to
  - Ensure infection control and prevention methods in place to prevent further illnesses
  - Address problems that may have led to the outbreak
  - Contribute to epidemiologic knowledge of the disease
- Outbreak data are reported in Texas Weekly Flu Report to identify areas of the state with local epidemic activity

Other Activities

- Flu surveillance activities are highly variable among local and regional health departments in Texas
- Health departments often use their own systems and methods for data collection
- Health departments (HD) may choose to collect:
  - ILI and flu illness reports from clinics or hospitals (non-ILINet)
  - ILI and flu death reports from medical examiners
  - Flu laboratory test results from clinics or hospital labs (non-NREVSS)
  - Absenteeism data from schools
  - Syndromic surveillance data from emergency departments

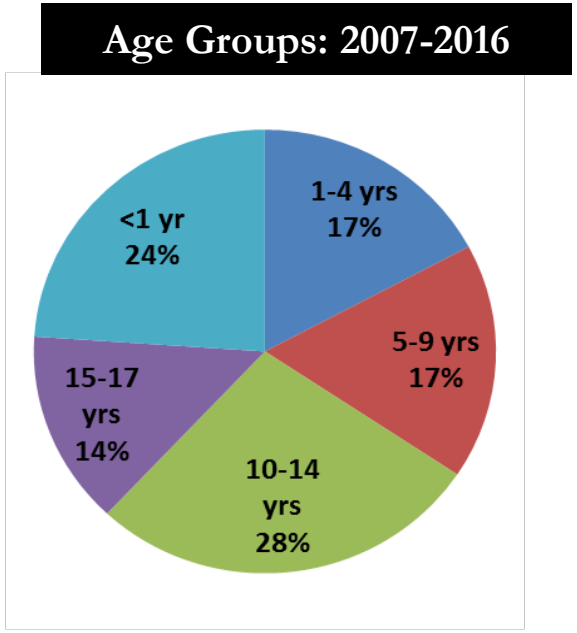
Mortality Surveillance Activities

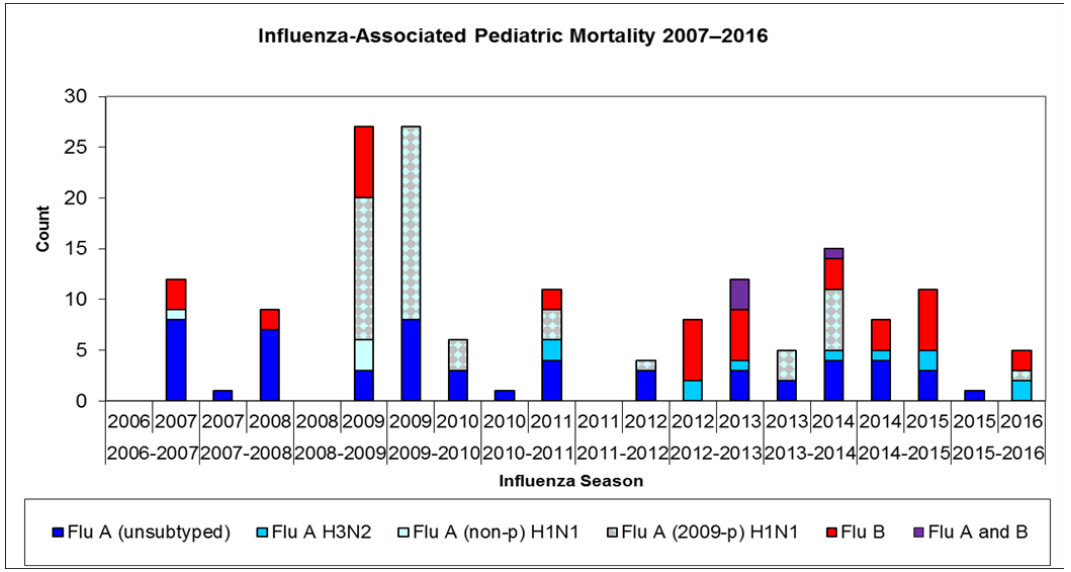
Influenza-Associated Pediatric Deaths

- Deaths in children < 18 years of age are reported to local health departments as required by law
- Purpose:
  - Monitor trends in pediatric flu deaths
  - Identify risk factors associated with death
  - Support public health recommendations for influenza prevention
- Data collected include age, location, influenza virus type/subtype, presence of underlying health conditions, coinfections, vaccination status, treatment type and timing

Influenza-Associated Pediatric Deaths

- Expect about 15 deaths/year
- No influenza-associated pediatric deaths have been reported in Texas during the 2016-2017 influenza season*
- 7 influenza-associated pediatric deaths for last influenza season*





*As of Oct. 31, 2016

Pneumonia and Influenza (P&I) Death Certificate Reporting

- Purpose:
  - To establish a baseline for P&I deaths and monitor trends each season
  - To identify unreported influenza-associated pediatric deaths
  - To describe the severity of influenza epidemics
- Mechanism: Data use agreement between Emerging and Acute Infectious Disease and DSHS Center for Health Statistics
- Data collected:
  - P&I deaths are identified based on ICD-10 multiple cause of death codes
    - Important to collect pneumonia death data because many influenza deaths are not coded/identified as influenza
  - 2-3 week lag in timeliness of data received

Pneumonia and Influenza (P&I) Deaths

- P&I deaths are reported in the state flu report by age group and geography (Health Service Region)
- No P&I deaths have been reported in Texas during the 2016-2017 influenza season*
- 8415 P&I deaths have been reported last season*

Table 7: Texas P&I Deaths Occurring Oct. 04, 2015-Oct. 05, 2016* by Age

Age Category (years)	Number of P&I Deaths*	Mortality Rate (per 100,000)
0 - 4	42	2.06
5 - 17	21	0.39
18 - 49	491	3.93
50 - 64	1418	28.52
65 +	6443	191.46
Overall	8415	29.80

*NOTE: Data are provisional and subject to change, errors, and duplicates
* If the cell count is less than 10, the number of P&I deaths is suppressed and <10 is written in the cell.

Table 8: Texas P&I Deaths Occurring Oct. 04, 2015-Oct. 05, 2016* by Health Service Region (HSR)

HSR	Number of P&I Deaths	Mortality Rate (per 100,000)
1	362	40.24
2/3	2348	28.76
4/5N	675	42.50
6/5S	1899	25.83
7	979	28.70
8	870	29.76
9/10	481	31.44
11	801	33.79
Overall	8415	29.80

*NOTE: Data are provisional and subject to change, errors, and duplicates

*As of Oct. 31, 2016

Texas Weekly Flu Report

- Published each Friday and available at http://www.dshs.texas.gov/idcu/disease/influenza/surveillance/

TEXAS Department of State Health Services

STOPPING THE FLU IS UP TO YOU

Texas Influenza Summer Surveillance Report
2015–2016 Season/2016 MMWR Week 39
(Sept. 25, 2016 – Oct. 01, 2016)
Report produced on 10/07/2016

Summary

Influenza activity remains low across Texas. Compared to the previous week, the percentage of specimens positive for influenza decreased and the percentage of patient visits due to influenza-like illness (ILI) marginally increased. No influenza-associated pediatric deaths were reported. No ILI or influenza-associated outbreaks were reported. In addition to flu, other respiratory viruses—especially rhinovirus/enterovirus—were detected in Texas during week 39.

Table 1: Summary of Texas Influenza (Flu) and Influenza-like Illness (ILI) Activity for the Current Week

Texas Surveillance Component	Change from Previous Week	Current Week	Previous Week†	Page of Report
Statewide influenza activity level reported to CDC (geographic spread of influenza)	Not determined during the summer	N/A	N/A	--
Statewide ILINet Activity Indicator assigned by CDC (intensity of influenza-like illness)	Not determined during the summer	N/A	N/A	--
Percentage of specimens positive for influenza	▼1.86%	1.38%	3.24%†	1
Percentage of visits due to ILI (ILINet)	▲1.03%	3.88%	2.85%†	2
Number of regions reporting increased flu/ILI activity	No change	1	1	4
Number of regions reporting decreased flu/ILI activity	▲1	1	0	4
Number of variant/novel influenza infections	No change	0	0	4
Number of ILI/influenza outbreaks	No change	0	0	4

Future Surveillance Activities

- Flu-associated Deaths of All Ages
  - In process of making flu-associated deaths of all age a notifiable disease condition in Texas
    - Initial comments from public health stakeholders were positive
    - Approved at the August State Health Services Council Meeting
    - Currently, going out for public comment and has to be finalized
  - Becomes a notifiable condition on in March 2017 if there is minimal negative feedback
  - When to report: Within 1 week
- Achieve Right Size surveillance objectives by strengthening current surveillance components, initiating new surveillance projects, and improving partnerships

Respiratory Syncytial Virus (RSV) Surveillance in Texas

RSV Background

- Most common cause of bronchiolitis and pneumonia in infants
- Gaining recognition as a significant cause of respiratory illness in older adults
- Each year in the US, RSV infection causes or is associated with:
  - 2.1 million outpatient visits and >57,000 hospitalizations among children < 5 years of age
  - 177,000 hospitalizations and 14,000 deaths among adults 65+ years of age
- RSV season is approximately October through April
  - Illnesses usually peak in Texas in December or January

High Risk Groups

- Children
  - Premature infants
  - Children < 2 years of age with congenital heart or chronic lung disease
  - Children with compromised immune systems
- Adults
  - Adults with compromised immune systems
  - Adults ≥ 65 years of age

Immunoprophylaxis is Available for Children

- Palivizumab (Synagis), a monoclonal antibody
- Recommended by the American Academy of Pediatrics for prevention of severe RSV disease for certain high-risk infants and children
  - Not a treatment for RSV disease, cannot prevent infections
- Must be given monthly during RSV season
- Cost is $1,000-2,000+ per dose without insurance
- Insurance coverage for a 5-month period determined by surveillance data

Establishing RSV Surveillance in Texas

- 2005: 79th Texas Legislature passed HB 1677
  - Required a sentinel surveillance system for RSV be established
- Texas Administrative Code (TAC) Title 25, Part 1, Chapter 97, Subchapter K
  - DSHS shall establish and maintain a sentinel surveillance program for RSV infection in children
  - The program will:
    - Maintain a central database of laboratory-confirmed cases of RSV that can be used to investigate the incidence, prevalence, and trends of RSV
    - Recruit at least one health care facility or provider associated with a health care facility in each Health Service Region of the State to report RSV data

RSV Surveillance System

- Used existing surveillance and reporting system for RSV surveillance: CDC's National Respiratory and Enteric Virus Surveillance System (NREVSS)
  - CDC web-based laboratory reporting system
  - Reporting is voluntary
  - Reports are from hospital laboratories
  - Collects total number of RSV tests performed and number of tests positive each week
  - Data are available to state health departments

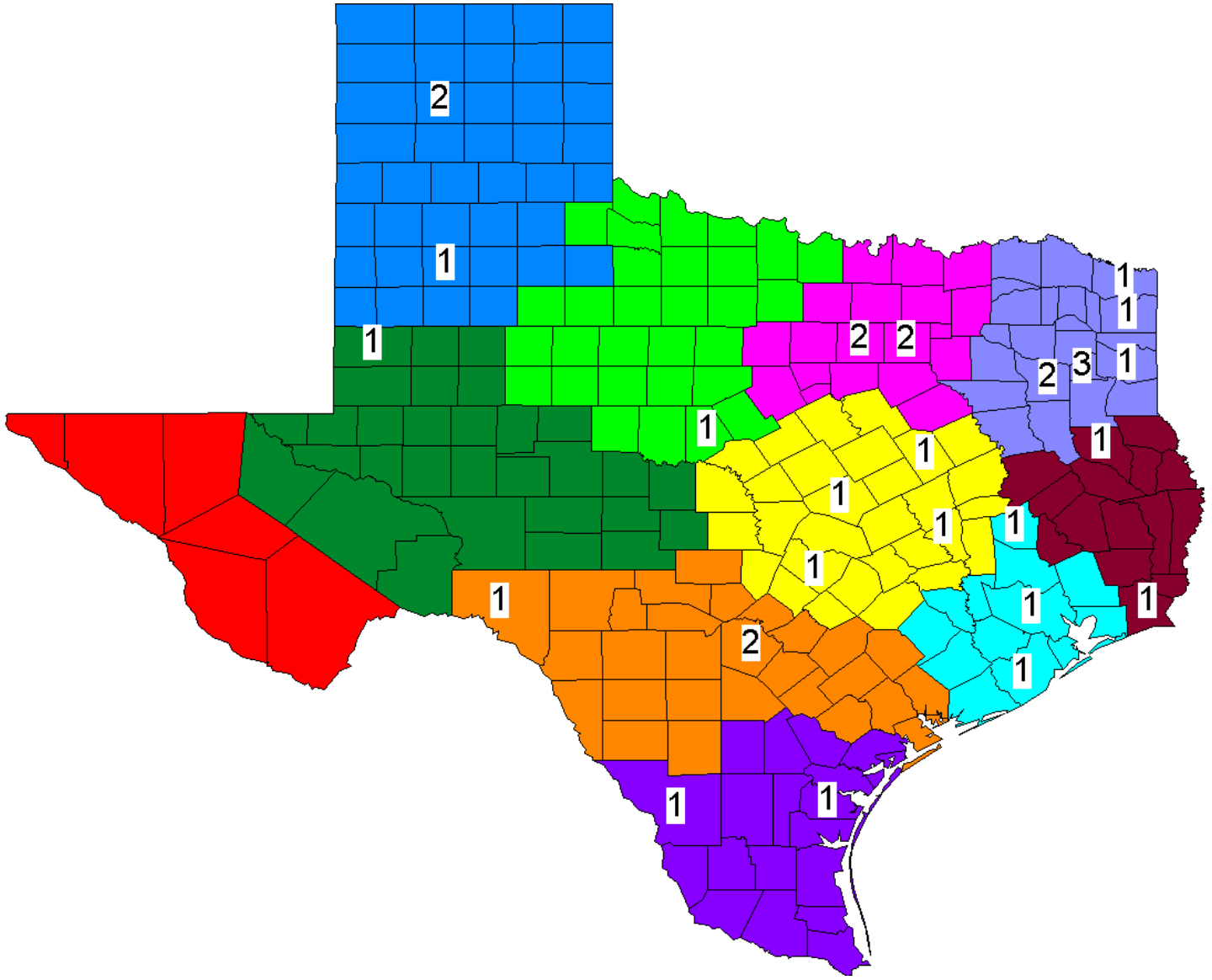
CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

NREVSS
National Respiratory and Enteric Virus Surveillance System

Number of RSV Reporting Laboratories per County

Laboratories reporting RSV data, 2016-2017 season:

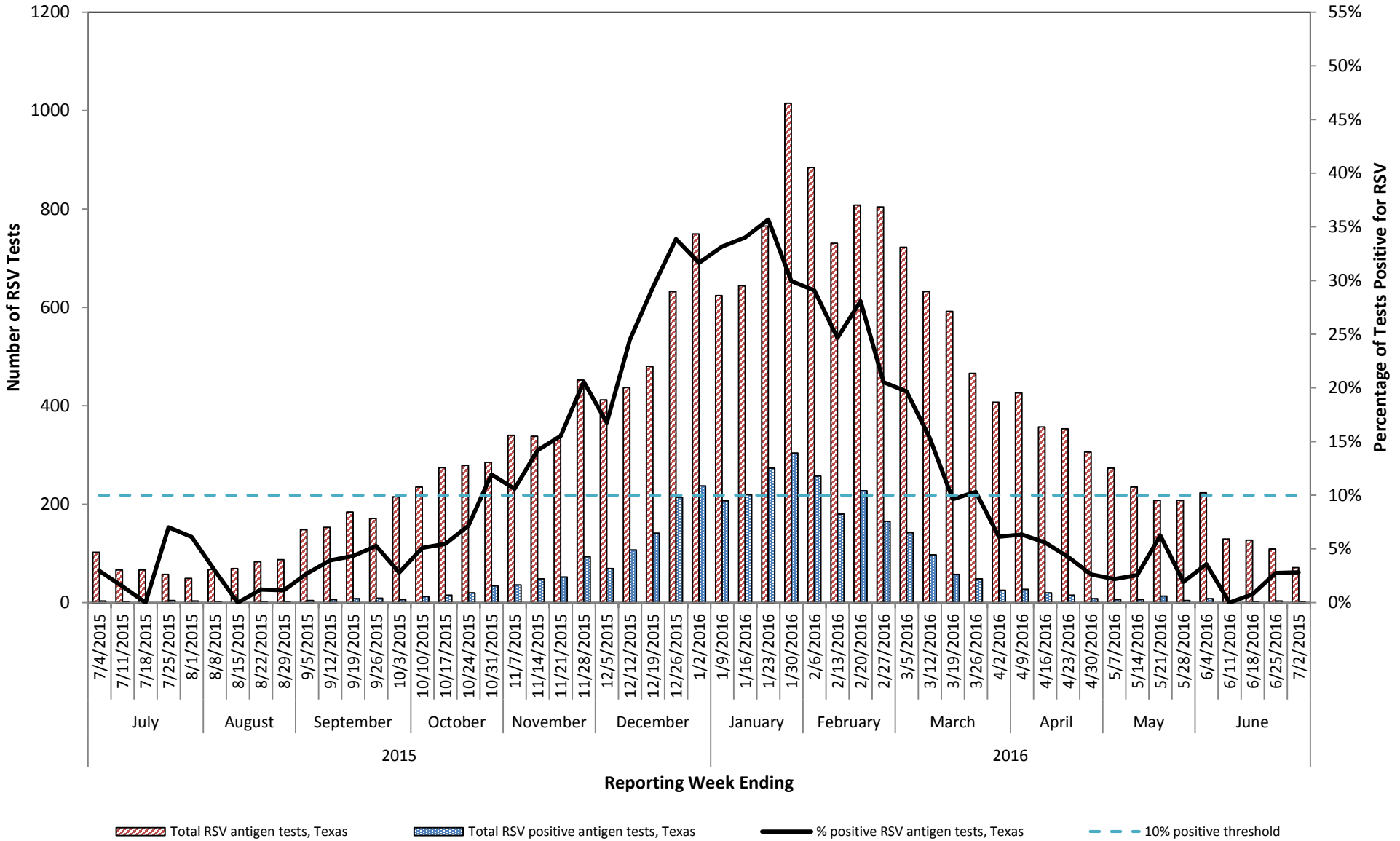
- 1 public health lab
- 1 Air Force base
- 29 hospital labs
  - 5 are children's hospitals



Texas RSV Report

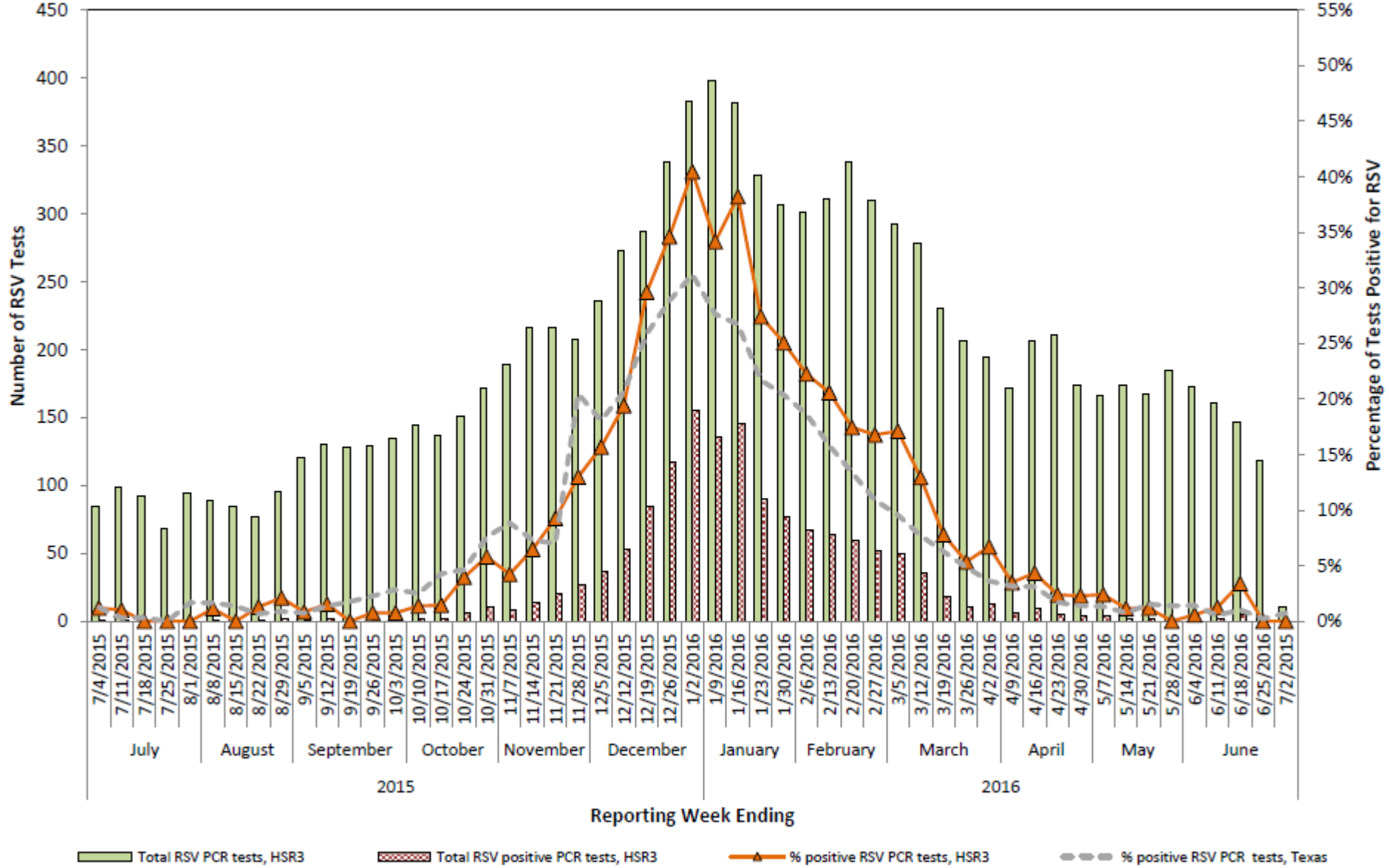
- DSHS RSV page: www.rsvtexas.org
- Click on “Data” link to find the state RSV report
  - Weekly RSV reports posted each Tuesday from September through May
  - Report contains graphs displaying state and regional RSV laboratory data
    - Data help us to understand when RSV season begins, peaks, and ends in each Texas Health Service Region (HSR)
  - Season summary graphs also available

Number and Percentage of Antigen Tests Positive for Respiratory Syncytial Virus (RSV)
All Texas Sites, 2015-2016



The start of RSV season is the first of two consecutive weeks with ≥10% of tests positive, and the end is the last of two consecutive weeks with ≥10% of tests positive.

Number and Percentage of PCR Tests Positive for Respiratory Syncytial Virus (RSV)
Health Service Region 3 (DFW Metroplex), 2015-2016 Season



Regional-level results may not be reliable if the number of RSV tests performed each week is small or if reporting is inconsistent.
National and state RSV analyses typically rely on antigen test data. However, PCR testing for RSV is relatively new but is becoming more common.

Using RSV Data for Prophylaxis Recommendations

- RSV data and trends reviewed twice per month during RSV season by Texas Pediatric Society (TPS) and DSHS RSV epidemiologist
- RSV data used to monitor state and regional trends and determine timing of initiation of RSV prophylaxis
  - TPS makes recommendations to Texas Medicaid Program
  - RSV prophylaxis recommendations may differ by Texas Health Service Region, based on RSV data

TEXAS Department of State Health Services

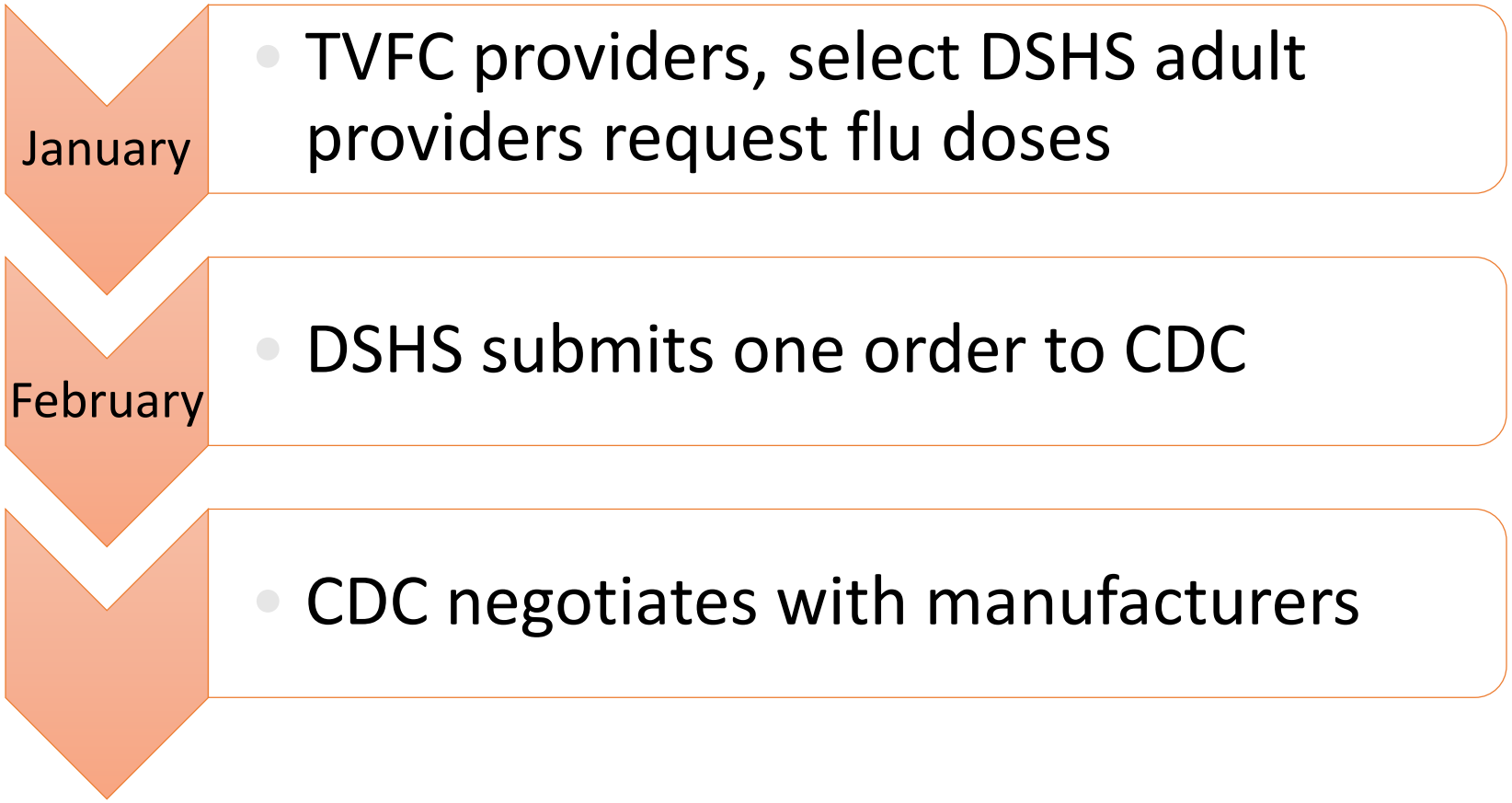
TEXAS Health and Human Services Commission

Texas Pediatric Society
The Texas Chapter of the American Academy of Pediatrics

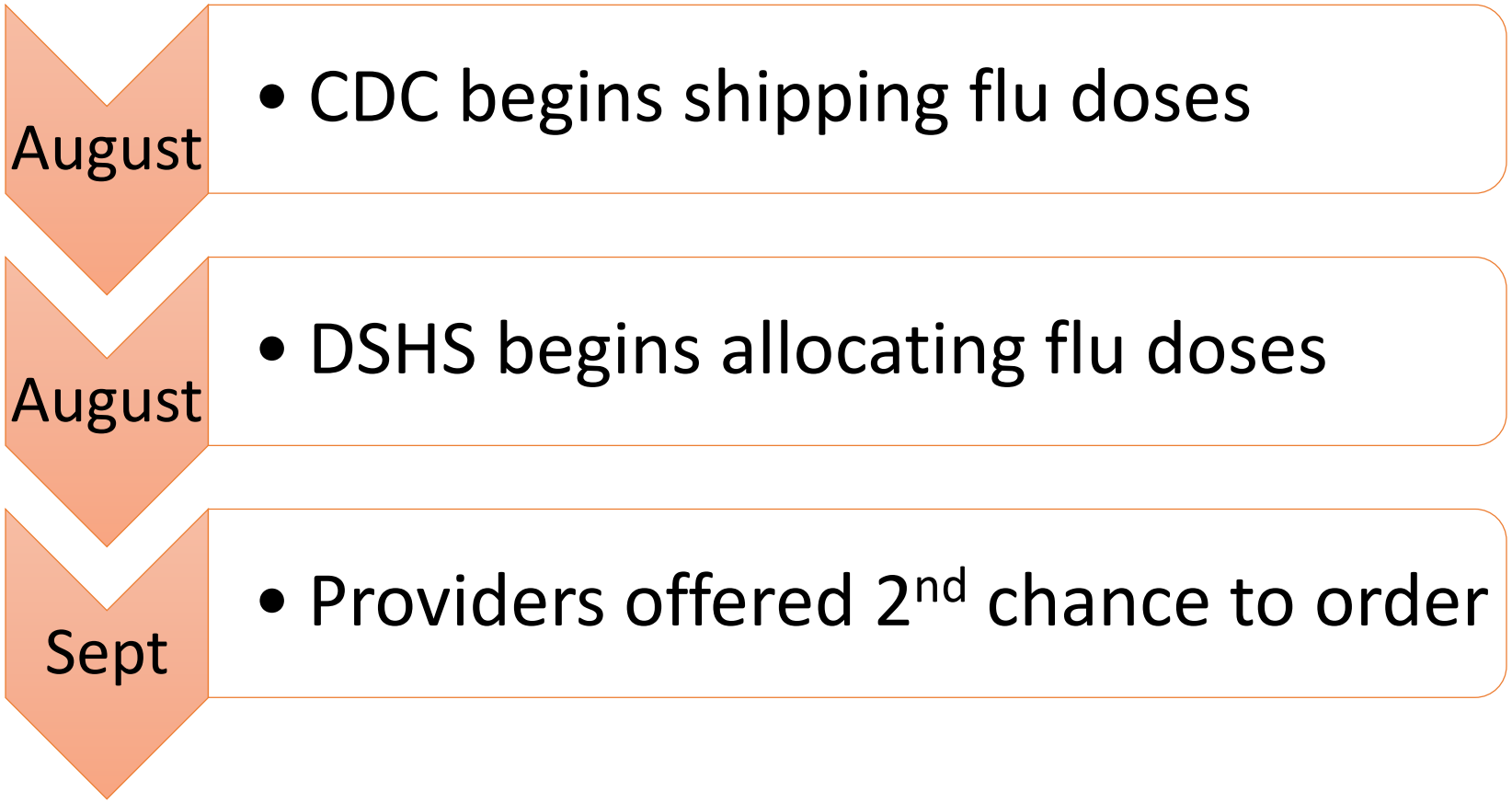
Future RSV Surveillance Activities

- Recruit additional hospital laboratories in areas of the state where there is limited RSV laboratory data reporting
  - HSR 2 (Northwest Texas)
  - HSR 9 (West Texas/Midland/Odessa)
  - HSR 10 (Upper Rio Grande/El Paso)

Flu Vaccine Order Process



Flu Vaccine Order Process



2016 Flu Allocation

- 1.99 million pediatric doses pre-booked by 2,648 TVFC providers
  - $31,537,863.75 in vaccine
  - 78% of doses received thus far
  - 53% of providers have received 100% of their pre-booked doses
- 15,000 adult doses pre-booked
  - 100% received thus far
  - $205,800 in vaccine

Changes in Vaccine Availability

- The Advisory Committee on Immunization Practices recommended that live attenuated intranasal vaccine (FluMist) NOT be used this season
  - Recommendation made due to poor vaccine efficacy in previous seasons
  - Recommendation made after pre-booking
- FluMist pre-booked orders were replaced with two other products (Fluarix and Fluzone), but this caused a nationwide back log for those products