

Texas upload of closed cases



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CATEGORY: **Epidemiology and Laboratory Capacity (ELC)**

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As local health departments have begun building disease surveillance systems, Texas Department of State Health Services (DSHS) needed a way to ingest local health data into their surveillance system. DSHS build a pathway to import case investigation data from these external systems to allow for accurate, timely, and complete reporting to the Centers for Disease Control and Prevention (CDC) with minimal manual effort for both local and DSHS staff.

A recent challenge that the Texas Department of State Health Services (DSHS) has faced includes the ability to process closed case investigations received from local health departments who are opting to build supplemental disease surveillance systems. Several local health departments in Texas are poised to develop their own supplemental disease surveillance systems. DSHS faced the dilemma of establishing a method to ingest case investigations from these local health departments into the Texas National Electronic Disease Surveillance System (NEDSS).



Four local health departments in Texas have built a supplemental disease surveillance system. These locals plan to continue data entry into Texas NEDSS but aim to fully transition to their new systems. The request from these locals to DSHS is to develop interoperability pathways between these new systems and NEDSS. These case reports still are required to be sent to CDC as case investigation notification messages. DSHS has successfully established several data specific mapping guides thus far including pertussis, hepatitis A, hepatitis B, and hepatitis C. The data mapping guides provide condition specific mapping requirements and provide a pathway for data exchange from local partners to DSHS.

The “What”

DSHS identified four jurisdictions utilizing local surveillance systems and scheduled kick-off meetings with each jurisdiction. Pertussis was identified as the first condition to export out of their system and import closed case investigations into NEDSS. DSHS collaborated with a vendor, to create data mapping guides encompassing a list of required fields to be sent to DSHS NEDSS. The public health document container format was employed as the template for building those exported case investigations, conducting integration testing, and user acceptance testing with all four jurisdictions. Thus far, two jurisdictions have passed all the testing phases and were approved to send closed pertussis cases to DSHS NEDSS.



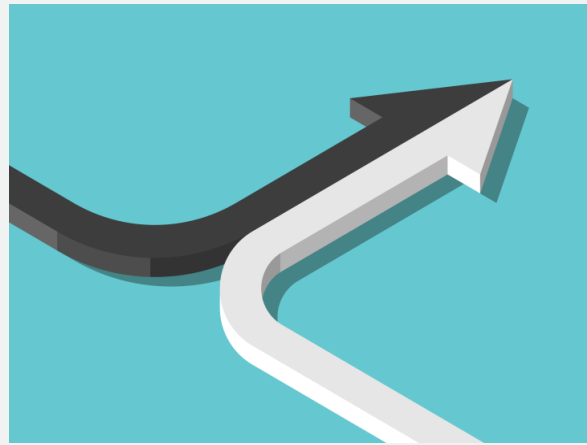
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DSHS continues to work with the two jurisdictions in production for pertussis and is monitoring the timeliness and completeness of this work in moving towards a release for this condition. Among the remaining two jurisdictions, one has yet to send production level data while the other has not been able to make progress due to loss of staff. The Epidemiology and Laboratory Capacity for the Prevention and Control of Emerging Infectious Diseases (ELC) cooperative agreement covered all the technology costs and the cost of the vendor. The ELC funding was critical to implement this feature in the DSHS NEDSS system. This funding will be crucial moving forward as DSHS will need to develop more data mapping guides for additional conditions to be imported into NEDSS from local health departments.

The “So What”

As DSHS sees the departure of several large health departments from use of the statewide NEDSS surveillance system, it is critical that a pathway to ingest closed case investigation data be made available for all conditions. DSHS has a responsibility



to report those cases in an accurate, timely, and complete manner to the CDC. Developing interoperability pathways for local health departments is imperative to ensuring that Texas has the most complete data on infectious diseases across the state. It is essential that these pathways be in place to ensure proper processing from these larger volume local health departments. The success of this effort also ensures that no manual data entry is required for both public health entities involved.

The “Now What”

This work with the jurisdictions has created a great working relationship between DSHS and the local jurisdictions. The outcome of successfully importing pertussis closed cases has opened the door to importing other closed cases. DSHS has already begun work on importing Hepatitis A as the next condition for this work. Mapping guides are being prepared for Hepatitis B & C acute, Hepatitis B & C chronic, and Hepatitis B perinatal.

DSHS epidemiologists’ available capacity in the vaccine disease preventable program area is increasing due to the reduction in manual data entry dedicated to pertussis case investigation

reports. As more conditions are available to be imported into NEDSS, the available capacity of the epidemiologists working on creating those case investigation reports will increase as well.

This work has been initiated in the vaccine-preventable disease program area and will expand to other program areas as defined by the DSHS prioritized list of conditions. This work has been initiated with four jurisdictions and has been expanded to two additional jurisdictions. DSHS is working with eight other jurisdictions to import their closed COVID-19 case reports and will discuss offering to import non-COVID-19 conditions into NEDSS to these jurisdictions.

Key contributors to this project include our partner, SS Data Info (SSDI); Jessica Romano, Lucille Palenapa, Sepehr Arshadmansab, Elise Huebner, Kenneth Davis, Johnathan Ledbetter, Binoj Peter, Ashwini Talur, Dennis Bitterlich, Venkatesan Palanivelan, Marco Aviles, and Brendon Blomquist, with the Texas Department of State Health Services.