

COVID-19 DATA DISCREPANCIES BETWEEN THE
LOUISIANA DEPARTMENT OF HEALTH
AND RED RIVER/DESOTO PARISHES



ISSUED AUGUST 6, 2020
PERFORMANCE AUDIT SERVICES
DATA ANALYTICS UNIT

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LOUISIANA LEGISLATIVE AUDITOR
DARYL G. PURPERA, CPA, CFE

August 6, 2020

The Honorable Patrick Page Cortez,
President of the Senate
The Honorable Clay Schexnayder,
Speaker of the House of Representatives

Dear Senator Cortez and Representative Schexnayder:

On July 14, 2020, Red River Parish's Office of Homeland Security and Emergency Preparedness (Red River) published a post on its Facebook page stating that the Louisiana Department of Health (LDH) was over reporting the number of individuals in Red River Parish who had tested positive for COVID-19. The DeSoto Parish Sheriff's Office (DeSoto) published a similar post on its Facebook page on July 20, 2020, in which the office also claimed that LDH was over reporting the number of positive COVID-19 cases in DeSoto Parish.

On July 17, 2020, the Louisiana Legislative Auditor (LLA) received a legislative request to review LDH's data related to COVID-19 tests, positive cases, hospitalizations, and deaths. That same day, the LLA requested that LDH provide copies of the corresponding COVID-19 data, which we received in full by July 30, 2020. In addition, on July 27, 2020, we requested from both Red River and DeSoto parishes the data they had to support their claims of LDH over reporting the number of positive individuals. We received this data from Red River on July 28, 2020, and DeSoto on July 27, 2020.

Process of LDH Submitting Data to Parishes for First Responder Purposes:

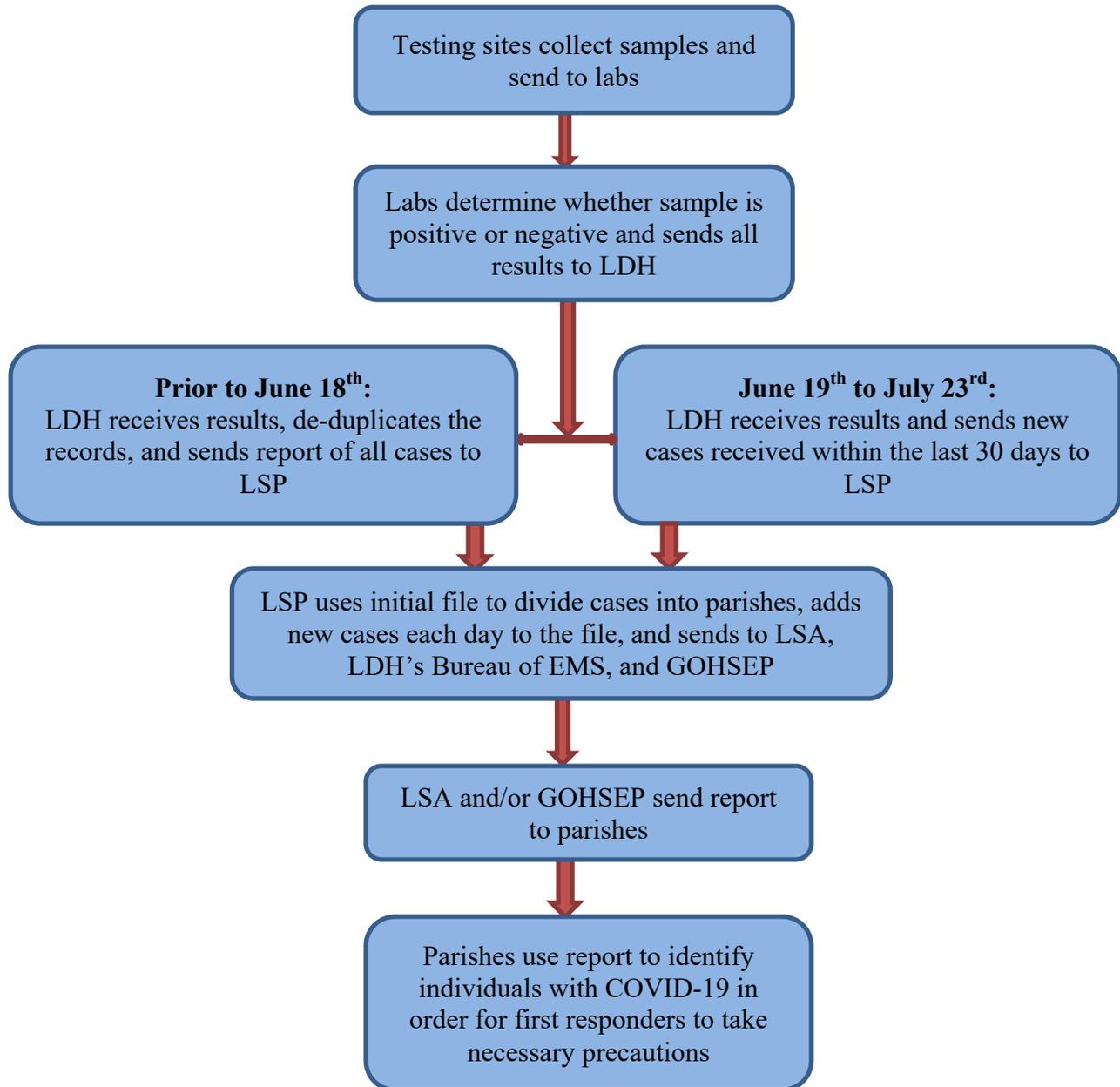
According to LDH staff, the process for transmitting the list of individuals known to have tested positive for COVID-19, known as the First Responder Report, to individual parishes began in the early stages of the COVID-19 pandemic. Initially, LDH's Bureau of Emergency Medical Services Section (EMS) requested the data to send to EMS first responders to provide them with advance notice of the possibility of coming into contact with a COVID-19-positive person during the course of their work. This advance notice was important due to a shortage of Personal Protective Equipment (PPE) at the outset of the pandemic. However, according to LDH, this data was eventually provided to the Sheriff and Office of Homeland Security and Preparedness in every parish to help protect the health and safety of law enforcement officers, emergency medical technicians, and other first responders by enabling them to be aware and take appropriate protective measures when responding to emergency calls involving individuals

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known to have tested positive for COVID-19 (positive cases). According to LDH, the intent was for the First Responder Report data to be uploaded into Computer Aided Dispatch (CAD) systems throughout the state to inform first responders. However, according to Louisiana State Police (LSP), there is no statewide CAD system, and not all parishes and/or municipalities have a CAD system.

According to LDH and LSP, the daily First Responder Report provided to LSP from April 6, 2020, to June 17, 2020, contained a comprehensive list of all known positive cases. However, LDH stopped providing this comprehensive First Responder Report to LSP on June 18, 2020, and instead began providing LSP with a First Responder Report that only contained the list of new positive cases reported that day. In addition, LDH staff stated that the First Responder Report provided after June 18, 2020, only included positive cases in which the individuals tested positive in the previous 30 days, because individuals tested with collection dates older than 30 days were likely no longer contagious. Exhibit 1 summarizes how information was transmitted from COVID-19 test sites to the individual parishes from April 6, 2020, through July 23, 2020.

Process of Sending COVID-19 Cases to Parishes



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Analysis of DeSoto and Red River Discrepancies:

Based on the internal analyses performed by Red River and DeSoto on the First Responder Report they received from LSP, these two parishes believed that the data they received from LDH included duplicates and that LDH’s number of cases reported on its COVID-19 Dashboard were overstated, as shown in Exhibit 2 below.

Exhibit 2 Comparison of Reported Case Numbers				
Parish	Date	LDH Number Reported on Its COVID-19 Dashboard	Parish Number Calculated by Parishes Based on File Received from LSP and the Parishes	Difference in Counts
Red River	7/14/2020	96	58	38
DeSoto	7/20/2020	491	386	105
Source: Prepared by legislative auditor’s staff using information from LDH and various news media.				

To determine what was causing the discrepancies between these parishes and LDH, we obtained and analyzed all COVID-19 test results and positive case data from LDH, as well as the First Responder Report from LSP, Red River Parish, and DeSoto Parish. Based on meetings with these entities and our review of the COVID-19 positive case data and First Responder Report data, we found the following issues which appear to have led to the discrepancies between the parishes’ numbers and those of LDH:

1. **The First Responder Report was designed to communicate who tested positive for COVID-19 so that first responders could take necessary precautions. The report was never intended to represent the cumulative positive case count for each parish.** According to LDH, the purpose of providing this data to first responders was to help in protecting the health and safety of law enforcement officers, emergency medical technicians, and other first responders by enabling them to be aware and take appropriate protective measures when responding to emergency calls involving individuals known to have tested positive for COVID-19. Based on this purpose, it did not matter if an individual was listed twice as having tested positive, as long as he/she was listed.

2. **Because of the need to provide timely information on positive cases, files transmitted from LDH to LSP contained data that included duplicate cases and incomplete parish information that had not yet been corrected by LDH.** From April 6, 2020, to June 17, 2020, LDH provided LSP with a comprehensive list of positive cases. This list was updated daily with the new positive cases. According to LDH, the data went through a daily automated process to remove duplicates before the data was provided to LSP each day. LDH stated that it was aware of instances where duplicate cases were not removed during this process, which resulted in duplicate cases being included in the report sent to LSP. For example, the automated removal process would not remove instances where first or last names were misspelled.

The data sent from LDH to LSP also included positive cases where the lab submitting the case did not identify the parish in which the case was located and therefore could not be assigned to a specific parish on the date that it was provided to LSP. According to LDH, the inclusion of duplicates on this list was not an issue because the purpose of the report was to notify first responders of the individuals with positive cases when responding to emergency calls, not to cross-check the number of positive cases reported by LDH for a particular parish. On June 19, 2020, LDH changed the process in which positive case data was provided to the parishes¹ and began only sending LSP new positive cases from the last 30 days instead of a complete file.

3. **LSP's process of creating individual reports for each parish did not incorporate changes or corrections made by LDH to cases previously reported. Although unintentional, this resulted in duplicate cases and cases not being assigned correctly to parishes.** According to LSP, the daily file it received from LDH between April 6, 2020, and June 17, 2020, contained all positive cases listed in a single report. To track the dates LSP received the file and to make the data more accessible to each parish, LSP created individual reports for each parish every day. LSP did this by adding the new cases reported by LDH each day on the comprehensive report to the First Responder Report sent out the previous day by LSP. However, by only adding the new cases reported each day, the First Responder Report that was sent to the parishes by LSP did not include any changes or corrections made by LDH to cases previously reported, which resulted in cases being duplicated and cases not being assigned to parishes or being assigned to incorrect parishes.

¹ LDH did not provide positive cases on June 18, 2020, due to implementing a new process for improved de-duplication and parish assignment of data received from labs around the state. In doing so, LDH identified a total of 1,666 existing duplicate cases as well as cases of out-of-state residents.

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For example, we identified individuals who were listed on the First Responder Report multiple times with unique patient identification numbers for each entry. A comparison of these duplicates with LDH's positive case list data found that the duplication issues appeared to have been corrected by LDH, and each of the individuals with duplicates on the First Responder Report were no longer assigned multiple patient identification numbers; however, these changes do not appear to have been made on the First Responders Report that both Red River and DeSoto were provided. According to LSP, it was unaware that updates were made to the cumulative file. According to LDH, it has made enhancements and improvements to its automated and manual de-duplication processes over time.

4. **From June 19, 2020, through July 23, 2020, LDH began only including new positive cases in its First Responder Report. However, these reports still did not include changes made by LDH to cases previously submitted to LSP, such as the removal of duplicates and re-assignment of parishes. In addition, LDH did not send new cases received from labs that were more than 30 days old because these individuals would likely no longer be contagious.** As mentioned previously, LDH has used both an automated and manual de-duplication process throughout the time they have sent the First Responder Report. In addition, on June 18, 2020, LDH implemented a new process for improved de-duplication and parish assignment of data received from labs around the state. At this time, LDH also began only including new cases on the First Responder Report instead of sending a cumulative case file to LSP.

LDH stated that, since June 19, 2020, it stopped communicating cases more than 30 days old, as such individuals are presumed negative and the parishes only need to know individuals who presumed to still be positive for COVID-19. According to LDH, this is due to LDH sometimes receiving new positive cases that are reported by labs more than 30 days after the test occurred. In addition, LDH staff stated that any duplicates removed from the case count or cases re-assigned to a different parish after initially sending the case were not communicated on the First Responder Report provided to LSP during this time. For example, we identified records from LDH's dashboard that were assigned to either DeSoto or Red River Parish, but were not assigned to either parish in the First Responder Reports we received from those parishes.

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Conclusion:

Based on the information provided to LLA, we found that the numbers LDH reported on its dashboard are generally correct. For example, we found that none of the duplicates reported by Red River Parish were counted twice on LDH's dashboard, and all but three duplicates identified by DeSoto Parish were not counted twice on LDH's dashboard.² According to LDH staff, 1-2% of the cases reported on the dashboard are potential duplicates that will eventually be removed through its automated and manual review and de-duplication processes. We plan to conduct an audit of the dashboard to fully determine the integrity of the data reported on it.

The First Responder Report provided by LDH was intended to inform first responders of positive cases in their parish but was never represented or intended to be used as an official record count of all "non-duplicative" positive cases in each parish. It appears the discrepancies between Red River and DeSoto parishes' COVID-19 positive case counts listed on the First Responder report and the numbers reported by LDH on a daily basis between April 6, 2020, and June 17, 2020, are primarily the result of the following:

- Duplicates and incomplete parish information in the data provided by LDH before its de-duplication process for the dashboard, and
- LSP creating a cumulative list of new cases instead of using the cumulative case file provided by LDH.

Discrepancies related to the cases reported between June 19, 2020, and July 23, 2020, appear to be the result of the following:

- LDH not communicating new cases with collection dates greater than 30 days old,
- LDH not communicating cases where changes were made to the parish in which the case was located after the case was originally reported,
- LDH not communicating the removal of duplicate cases that had been identified by LDH after they were reported, and
- LSP continuing to create a cumulative list of new cases using the list of daily reported cases it received from LDH for individuals who tested positive in the previous 30 days.

² Due to incomplete data regarding these potential duplicates, additional work would need to be performed to determine if these were true duplicates reported on LDH's dashboard.

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As of July 24, 2020, LDH changed the process of providing the First Responder Report by submitting new positive cases reported within the last 30 days directly to LSA instead of LSP. In addition, LDH is now requiring parishes to sign data sharing agreements outlining the intended use of the data and how it should be maintained.

Parishes using the First Responder Report in the manner in which it was intended, as well as LDH sharing all new cases and any changes to parish assignments in previous cases from the last 30 days, will help ensure that the data being shared by LDH with the parishes meets the initial intent of the First Responder Report, which is to provide advance notice to first responders regarding the possibility of coming into contact with individuals who have tested positive for COVID-19 during the course of their work.

Respectfully submitted,



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