

**COVID-19
DATA COLLECTION
AND REPORTING**

At Selected State Entities



Sherrill F. Norman, CPA
Auditor General

State Entity Heads

The Florida Statutes establish the various State entities and provide the title and selection process for the head of each State entity. The table below shows the three State entities included in the scope of this operational audit and the respective entity heads who served during the period of our audit.

| State Entity | Established by Florida Statutes | State Entity Head |
|---------------------------------------|------------------------------------|---|
| Division of Emergency Management | Section 14.2016 | Jared Moskowitz |
| Department of Health | Section 20.43 | Dr. Scott Rivkees |
| Agency for Health Care Administration | Section 20.42 | Shevaun Harris, Interim, from October 3, 2020 Mary C. Mayhew through October 2, 2020 |

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COVID-19 DATA COLLECTION AND REPORTING

At Selected State Entities

SUMMARY

To evaluate the State's readiness to provide essential information needed to respond to the global pandemic, this operational audit focused on COVID-19 data collection and reporting processes at the Agency for Health Care Administration (Agency), Department of Health (Department), and Division of Emergency Management (Division) during the period March 1, 2020, through October 9, 2020. As subsequently described, the number of entities reporting data, apparent inaccurate or incomplete data reported to the State by those entities, and the lack of effective access controls in the systems used to gather data, impacted the State's ability to accurately report COVID-19 data at the beginning of the pandemic. Notwithstanding, we recognize the great effort put forth by public servants in responding to and accounting for the COVID-19 pandemic. Any changes made in the State's data collection and reporting efforts after October 2020 may be subject to future audit. Our audit disclosed the following:

Collection and Reporting of COVID-19 Data

Finding 1: To evaluate the completeness of the death records in the Merlin system (Merlin), used by the Department to collect COVID-19 data, we compared Merlin death records to Bureau of Vital Statistics death records where COVID-19 was included as a cause or contributing factor of death and identified differences between the records.

Finding 2: Certain COVID-19 data included in Merlin did not appear complete or contained anomalies that would limit the accuracy and usefulness of reported information.

Finding 3: Department records did not always evidence that COVID-19 positive individuals were contacted, or timely contacted, in accordance with Department contact tracing guidance.

Finding 4: Neither the Division nor the Department reconciled the reported number of COVID-19 tests administered at State-led testing sites to laboratory results reported to the Department. Additionally, Division records did not always evidence that the Division reconciled the number of COVID-19 tests invoiced by laboratories to the number of tests reported in Division situation reports.

Finding 5: Agency records did not evidence the evaluation of the accuracy of COVID-19 data reported by hospitals, nursing homes, and assisted living facilities and such facilities did not always report required information.

Information Technology Controls

Finding 6: Controls over access to Merlin need improvement to reduce the risk of unauthorized disclosure, modification, or destruction of Department data.

Finding 7: Agency user access privilege controls for the Emergency Status System (ESS) need enhancement to better prevent and detect inappropriate access to the ESS.

BACKGROUND

Recognizing the significant threat to the health and safety of Florida citizens that Coronavirus Disease 2019 (COVID-19) presented, on March 1, 2020, the Governor issued Executive Order 20-51 which established the State's COVID-19 response protocol and directed the State Health Officer and Surgeon General (State Surgeon General) to declare a public health emergency and take any action necessary to protect the public health. The Executive Order designated the Department of Health (Department) as the lead State agency responsible for coordinating emergency response activities among the various State agencies and local governments.

On March 1, 2020, the State Surgeon General declared a public health emergency that specified, among other things, that the Department would request assistance from the Centers for Disease Control and Prevention to address the public health emergency, maintain an Incident Management Team to coordinate the State's public health response, and authorized the Department to take actions such as quarantine and isolation to protect the public health.¹ On March 9, 2020, the Governor issued Executive Order 20-52, declaring a state of emergency and designating the Director of the Division of Emergency Management (Division) as the State Coordinating Officer and the State Surgeon General as the Deputy State Coordinating Officer and State Incident Commander. The Governor extended the state of emergency numerous times, with the final extension ending June 26, 2021.

Along with the Department and the Division, the Agency for Health Care Administration (Agency) was also responsible for collecting COVID-19 data. Chart 1 depicts the responsibilities of each entity.

COVID-19 Timeline

January 20, 2020

First confirmed case in United States.

January 30, 2020

World Health Organization declares a Public Health Emergency of International Concern.

March 1, 2020

*First Florida cases reported.
Governor issues Executive Order 20-51 and the State Surgeon General declares a Public Health Emergency.*

March 5, 2020

First Florida death confirmed.

March 9, 2020

Governor issues Executive Order 20-52 and declares a State of Emergency.

April 3, 2020

Florida reaches 10,000 confirmed cases.

June 22, 2020

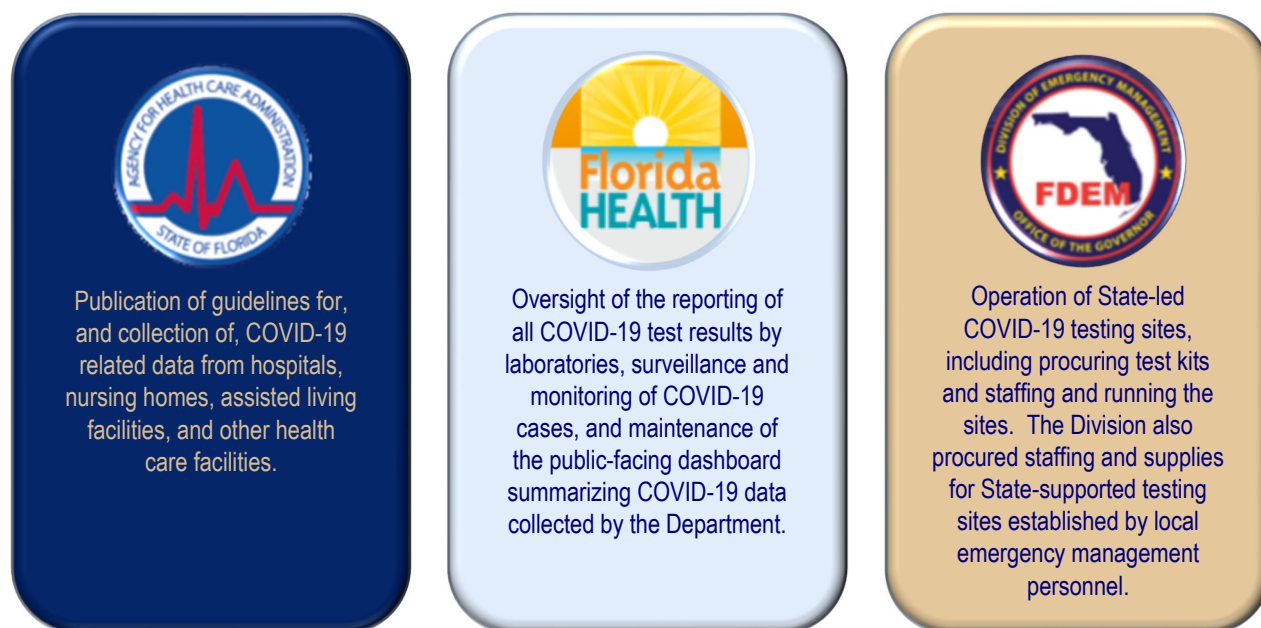
Florida reaches 100,000 confirmed cases.

June 26, 2021

State of Emergency ended.

¹ The State Surgeon General renewed the public health emergency on multiple occasions through June 26, 2021.

Chart 1
Entity Responsibilities



Source: Entity management.

The Department utilized the Merlin system (Merlin) to collect COVID-19 data such as laboratory test results. Laboratory test results were electronically uploaded into Merlin by the laboratories and information such as hospitalizations, deaths, and contact tracing data was input by county health department (CHD) personnel and contracted staff at the Department. The Agency used the Emergency Status System (ESS) to collect COVID-19 related data from hospitals, nursing homes, assisted living facilities, and other health care facilities.

For purposes of our audit, we obtained Merlin data for the period March 1, 2020, through October 9, 2020. As of October 9, 2020,² Merlin records indicated that the Department had collected 11,290,817 COVID-19 laboratory test results from 5,539,899 persons which identified 729,552 COVID-19 positive cases.

² The Merlin data cited in this report for October 9, 2020, was only partial-day data.

FINDINGS AND RECOMMENDATIONS

COLLECTION AND REPORTING OF COVID-19 DATA

According to the World Health Organization (WHO),³ the aim of COVID-19 surveillance was to limit the spread of disease, enable public health authorities to manage risks related to COVID-19, and thereby enable economic and social activity to resume to the extent possible. Surveillance was also necessary, among other reasons, to monitor the longer-term trends of COVID-19 transmission and changes in the virus. Consequently, the collection and reporting of complete, accurate, and real-time data was essential for infectious disease control.

Department Reporting

Based on data included in Merlin, the Department published COVID-19 reports (dashboards) on its Web site that included information on the total number of persons tested and the test results (positive or negative), the number of COVID-19 cases, the number of Florida residents hospitalized, and the number of deaths. The dashboards also included information on the characteristics of Florida resident COVID-19 cases, including the individual's age group, gender, race, and ethnicity, and COVID-19 case totals by county and city.

Division Reporting

At the inception of the pandemic, the Division assisted in the establishment and operation of both State-led and State-supported COVID-19 testing sites. State-led sites were operated by the Division with the assistance of contracted personnel, whereas State-supported sites were operated by local governments with the Division providing tests, supplies, and contracted personnel, as requested by the local government. The tests administered at each site were sent to a contracted laboratory for processing and laboratory personnel were responsible for reporting the results in Merlin⁴ and invoicing the Division for the cost of processing the tests. Using information collected by on-site contracted personnel, the Division prepared for each testing site daily situation reports that identified the number of people tested, the number of people turned away, supplies on hand (e.g., N-95 masks, test kits), and staffing resources. Division procedures required Division program managers to reconcile vendor invoices identifying the number of tests processed to the testing site metrics included in the situation reports.

Surveillance

Case surveillance is especially important for new diseases, such as COVID-19.

The information collected helps identify similarities and differences among cases.

Information commonly collected includes:

- *Demographic information (e.g., age, race, ethnicity)*
- *Clinical factors, such as symptoms*
- *Epidemiologic characteristics (where, when, and in which populations an illness is transmitted)*
- *Exposure and contact history (how an illness is spreading)*
- *Course of clinical illness and care received.*

³ WHO interim guidance, *Surveillance Strategies for COVID-19 human infection*, May 10, 2020.

⁴ Personnel at 2,487 laboratories reported COVID-19 test results to the Department during the period March 1, 2020, through October 9, 2020.

Agency Reporting

Pursuant to State law,⁵ the Agency is responsible for health facility licensure, inspection, and regulatory enforcement. At the direction of the State Surgeon General, the Agency used the ESS to monitor the reporting of hospital, nursing home, and assisted living facility bed census counts and related information such as staffed capacity. Effective March 2, 2020, the Agency required hospitals to report census data daily and, beginning April 9, 2020, to report information regarding available beds, staff needs, and ventilators in use. Nursing homes and assisted living facilities were to report census data daily beginning March 15, 2020. Information such as face mask inventory and needs was required to be reported by nursing homes and assisted living facilities effective April 1, 2020.

Finding 1: Analysis of COVID-19 Associated Death Records

An important measure of disease severity is the number of reported deaths associated with the disease. Accurate reporting of COVID-19 associated deaths is vital to assessing the severity and impact of COVID-19 and determining the efficacy of infectious disease control measures. As of October 8, 2020, Merlin included 15,372 COVID-19 associated deaths. As part of our audit, we compared, for the period March 1, 2020, through October 8, 2020, death records in Merlin to death records obtained from the Department, Bureau of Vital Statistics,⁶ that included COVID-19 as a cause or contributing factor of death. Our comparison identified:

- 2,495 death records in Merlin that were not included in Vital Statistics records based on a systematic match of the individual's full name and date of birth. We selected for further analysis 158 of the unmatched Merlin death records and found that 120 of the deaths were recorded in Vital Statistics records but did not have COVID-19 listed as a cause of death or a contributing factor, 2 deaths could not be located in Vital Statistics records, and the remaining deaths either occurred out of state or were located in Vital Statistics records after correcting for obvious misspellings in coronavirus or individual names. According to Department management, the Department used the national COVID-19 associated case definition to determine COVID-19 associated deaths and that COVID-19 does not need to be listed on the death certificate for a death to be classified in Merlin as COVID-19 associated.
- 3,082 death records in the Vital Statistics data that could not be systematically matched to death records in the Merlin data based on the individual's full name and date of birth.⁷ We selected for further analysis 523 of the unmatched death records and were able to manually match 237 of the death records that were not originally matched due to obvious misspellings, name formatting errors, or readily apparent date of birth discrepancies. Our further analysis of Merlin and Vital Statistics data for the remaining unmatched death records found that:
 - 52 individuals with a Vital Statistics record that listed COVID-19 as a cause or contributing factor of death had no record in Merlin.
 - 43 individuals had no record of a positive COVID-19 test in Merlin, although Vital Statistics records listed COVID-19 as a cause or contributing factor of death.

⁵ Section 20.42(3), Florida Statutes.

⁶ Pursuant to Section 382.003, Florida Statutes, the Bureau of Vital Statistics is responsible for the registration, compilation, storage, and preservation of all vital records in the State.

⁷ Social security numbers were available in Vital Statistics records but were not recorded in Merlin, thus making social security numbers unavailable for record matching purposes.

- For 169 individuals, although the death appeared to be associated with COVID-19 based on Vital Statistics records, the individual's death was not recorded in Merlin. Further analysis of these records disclosed that 135 of the deaths occurred during the 60 days from August 9, 2020, through October 8, 2020, and, according to Department management, a death report may take up to 60 days to finalize and record in Merlin.

In response to our audit inquiry, Department management indicated that, if the Department did not receive a positive lab result or if the name and demographics listed on the laboratory report differed from the death certificate, the Department may not have been able to match the record with enough confidence to definitively say that the individual who passed away was the same individual listed on the COVID-19 test result. For those individuals with no record in Merlin, Department management indicated that the Department may not have received a laboratory test result. For individuals without a laboratory test result where COVID-19 was listed on the death certificate, the Department marked the death as probable in Merlin, but did not include the death in its reported count.

Additionally, while Department management indicated that Department personnel conducted matches between Merlin and Vital Statistics data, the matches were initially performed manually and without any written guidance on how to conduct the matches.

Absent complete and accurate information related to the extent and severity of the COVID-19 pandemic, government officials and the general public may not have had all the information necessary to assess the efficacy of COVID-19 control measures and take appropriate actions.

Recommendation: We recommend that Department management take steps to ensure the accuracy and completeness of information regarding reportable diseases and outbreaks such as COVID-19.

Finding 2: Accuracy and Completeness of Merlin Data

To facilitate a timely and appropriate response to the COVID-19 pandemic, it was important for the Department to ensure that publicly reported data was accurate and complete and stratified by key demographic variables such as race, sex, ethnicity, age, and zip code. We analyzed the data for the 5,539,899 profiles for which COVID-19 tests were recorded in Merlin during the period March 1, 2020, through October 9, 2020, and noted that important demographic data was not always available or the data fields contained anomalies that limited the accuracy and usefulness of the information for reporting and for monitoring outbreaks. Specifically, we found that of the 5,539,899 profiles:

- 3,263,328 (58.9 percent) did not include the individual's ethnicity.
- 2,851,123 (51.5 percent) did not include the individual's race.
- 318,502 were missing the individual's state of residence and another 556 had invalid state abbreviations, including entries containing numbers, symbols, or "XX".
- 318,447 had blank or null values in the city data field and another 320 had invalid city names, including numbers or entries of only one or two characters.
- 239,656 had blank or null values for the street address and another 10,313 had anomalous entries for the street address.
- 136,688 had blank or null values for the county, while another 2,406 had "state" entered in the county data field rather than a county name.
- 75,828 did not include the individual's gender.

- 18,743 did not list the individual's age and another 1,741 included reported ages ranging from 110 to 267 years old.
- 11,152 had blank or null values for the zip code and another 2,110 had anomalous values.

In response to our audit inquiry, Department management indicated that the data quality issues were due to having to rely on data being sent from the laboratories, along with the large number of cases and limited resources to address data accuracy and completeness issues.

We also evaluated Department efforts to ensure the accuracy and completeness of COVID-19 data reported in Merlin. For example, the performance of edit checks and analyses, where practical and available, could detect errors, inconsistencies, and outliers in test result data.

In April 2020, the Department began running edit checks on the COVID-19 data reported in Merlin and the edit checks evolved as the Department learned more about the data. The Department reported running edit checks on the COVID-19 data included in Merlin, including edits for cases with reported ages over 100, event dates prior to January 2020, missing dates for follow-up contact attempts, and missing laboratory test results. Our examination of the documentation supporting Department efforts to resolve the data discrepancies identified by 9 edit checks disclosed that, for 1 edit check, the Department had not resolved, as of October 9, 2020, 7,718 instances where the dates of follow-up contact attempts were missing from Merlin. According to Department management, the CHDs were responsible for maintaining information on contact attempts and, while the CHDs were verbally notified to resolve these issues, the Department did not set a deadline for resolution.

The Department did not routinely perform data analyses to assess the completeness of all reported test results. Given the anticipated predictability of test result reporting for professional athletes due to league-established participation and testing protocols, we analyzed the reported results of the COVID-19 tests conducted by the three National Football League (NFL) teams headquartered in the State.⁸ NFL training camps for the 2020 season began in July 2020 and NFL protocols required players to pass three COVID-19 tests before entering their team's building, and then to be tested daily, and then eventually every other day if the team's positivity rate was below 5 percent. Teams were allowed to have up to 90 players on their roster until August 16, 2020, and up to 80 players on their roster until September 5, 2020, whereafter the teams were limited to 53 players for the remainder of the season.⁹ Additionally, during the season, teams were allowed to have a practice squad of up to 16 players. For the 2020 season, NFL regulations set the game-day active team roster at a maximum of 48 players and required rostered and practice squad players to be tested daily, including the day before games to determine their eligibility to play.

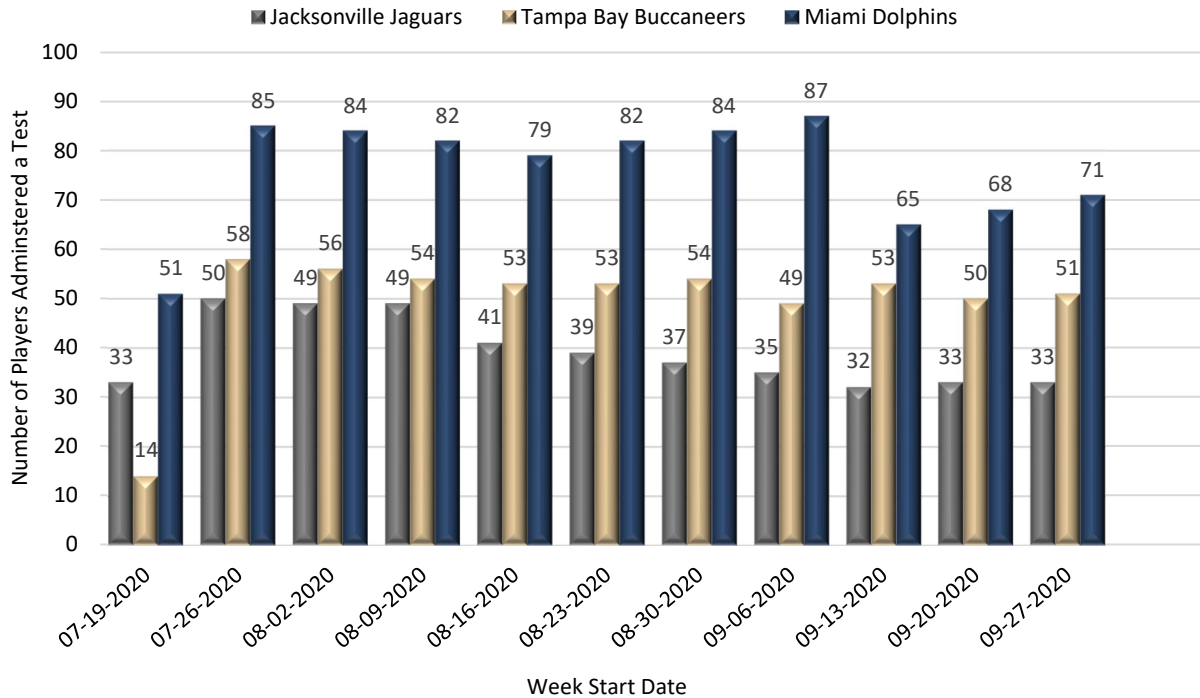
Based on our analysis, it appears that the NFL players' test results were not always reported in Merlin, or were not timely reported in Merlin. Chart 2 shows, by team, the variability in the number of players who were reported in Merlin as having been administered at least one COVID-19 test for the weeks starting July 19, 2020, through September 27, 2020. Also, our review of COVID-19 testing data found that, from the three teams, 39 players on at least one game-day roster during the period

⁸ Our analysis was to assess the completeness of the data reported in Merlin and not for the purpose of evaluating the NFL COVID-19 testing protocols or determining team compliance with those protocols.

⁹ A team could carry up to 55 players on its roster during the week by elevating one or two players from its practice squad on the day before the team's game.

September 13, 2020, through October 4, 2020, had no tests reported in Merlin and 11 practice squad players during the same period had no tests reported in Merlin.

Chart 2
Number of Players Administered COVID-19 Tests by NFL Team
For the Weeks Starting July 19, 2020, Through September 27, 2020



Source: Department Merlin data as of October 9, 2020.

In response to our audit inquiry, Department management indicated that COVID-19 test results for players without a Florida residence were to be sent to their state of residence, and that state was to forward the results to the Department; however, that may not have always happened.

Complete and accurate information related to the COVID-19 pandemic, including information by key demographic variables, is important to government officials and the general public for timely and appropriately responding to the pandemic. The performance of practical and available edit checks and analyses would better ensure the accuracy and completeness of collected information.

Recommendation: We recommend that Department management take appropriate actions to ensure that public health data collected and reported is accurate and complete. Such actions should include the performance of edit checks and analyses, where practical and available, to detect errors, inconsistencies, and outliers in the data and efforts to resolve any issues noted.

Finding 3: Contact Tracing

According to Department guidance,¹⁰ contact tracing for COVID-19 included identifying, assessing, and managing people who may have been exposed to the disease to prevent further transmission. Case

¹⁰ Florida Contact Tracing Guidance.

investigation and contact tracing are fundamental public health activities that require collaborating with patients diagnosed with an infectious disease to identify and provide support to persons who may have been infected through exposure to confirmed cases of COVID-19. According to Department guidance, investigating staff were to interview and conduct initial outreach to patients diagnosed with COVID-19 within 48 hours of the diagnosis being reported to the CHDs or the State and continue contact until the cessation of symptoms.

We examined case records for 25 confirmed COVID-19 positive individuals, selected from the population of 729,552 COVID-19 positive cases recorded in Merlin during the period March 1, 2020, through October 9, 2020, to determine whether the records evidenced that the Department conducted contact tracing in accordance with Department guidance. Our examination found that:

- For 4 of 14 applicable cases, the Department did not interview the individuals or conduct initial outreach within 48 hours of the diagnoses being reported to the CHDs. These individuals were contacted 4 to 13 days after their diagnoses were reported to their CHD. According to management of the applicable CHDs, the untimely contacts were due to the high volume of cases and limited number of personnel.
- For 4 of 6 cases where the individual was listed as symptomatic at the time of the initial interview, Department records did not evidence continued contact through the cessation of symptoms. According to management of the applicable CHDs, the increase in the number of cases and low staffing levels contributed to the lack of documented follow-up.

As a result of our examination findings, we analyzed Merlin data for the 729,552 COVID-19 positive cases to determine whether the data evidenced that the Department conducted contact tracing in accordance with Department guidance. Our analysis found that, for 168,880 of the 729,552 cases, Merlin did not evidence that the COVID-19 positive individuals were either contacted or contact was attempted by the Department. We also analyzed Merlin data for the 532,726 cases¹¹ where Department records indicated that contact tracing was performed or attempted by the Department and noted that 14,233 case records contained no telephone number or e-mail address, making the means of contact unclear. In response to our audit inquiry, Department management indicated that inaccurate contact information and the refusal of some individuals to speak with the Department hindered the Department's ability to contact all confirmed COVID-19 positive individuals. Department management also indicated that some of the case record discrepancies were due to data quality issues that arose as the number of COVID-19 cases spiked.

Timely and documented contact tracing serves as a core communicable disease control measure to help prevent the spread of infectious diseases such as COVID-19.

Recommendation: We recommend that Department management ensure that contact tracing activities are conducted in accordance with Department guidance and appropriately documented in Department records.

¹¹ 27,946 of the 729,552 COVID-19 positive cases recorded in Merlin during the period March 1, 2020, through October 9, 2020, were cases with a valid reason for no contact, such as the individual passed away before contact could be made.

Finding 4: COVID-19 Data Reporting and Contract Payment Controls

Effective internal controls over data collection and reporting and the related contract payments include timely and routine reconciliations between applicable data sources to promptly identify, thoroughly investigate, adequately document, and resolve data and contract payment issues. To determine whether the Department and Division ensured that the results of all COVID-19 tests administered at State-led sites were reported to the Department and Division payments to the contracted laboratories were appropriate, we inquired of Department and Division management and examined documentation supporting ten Division payments for laboratory services, totaling \$15,471,302, made during July and August 2020. Our audit procedures disclosed that:

- Neither the Division nor the Department reconciled the number of COVID-19 tests reported in daily Division situation reports as being administered at State-led testing sites to the laboratory results reported to the Department. In the absence of reconciliations, we selected for five State-led testing sites 1 week during the period March 2020 through August 2020 and attempted to reconcile the total number of COVID-19 tests administered according to the Division's situation reports to the laboratory results reported to the Department. For three of the testing sites selected, we noted differences between the total number of tests administered according to the situation reports and the total number of tests reported by the laboratories to the Department. Specifically, the situation reports for the three testing sites indicated that 2,593 tests were administered, while Department records indicated that only 996 test results were reported to the Department. According to Division and Department management, the way laboratory test results were reported in Merlin may have accounted for some of the differences.
- Division records for four payments totaling \$5,405,549 did not include the detail supporting the tests administered, such as the date and identification number for each test administered, necessary to facilitate a reconciliation of the number of COVID-19 tests invoiced by the laboratories to the number of tests reported in applicable Division situation reports. In response to our audit inquiry, Division management indicated that, in some cases, invoice review histories and notes were incomplete due to the migration of invoices to a new system and the number of invoices that the Division was receiving and processing daily.

According to Division management, the absence of a Statewide policy for assigning agency responsibilities during declared emergencies and the unique challenges of managing the logistical response to an emergency over which the Division lacked jurisdictional control contributed to the absence of coordinated reconciliations between Division and Department COVID-19 testing data. Some of those challenges included the lack of Division staff's medical knowledge and the use of contractors, rather than State employees, to operate the testing sites and prepare the situation reports. Department management indicated that a lack of Department involvement in the establishment and operation of State-led testing sites also contributed to the inability to reconcile test results, as the sites, when initially established, did not report electronically through Merlin.

Reconciling the Division-reported number of COVID-19 tests administered at State-led testing sites to the laboratory results reported to the Department would have promoted the accuracy and completeness of information necessary to help manage the pandemic. Reconciliations between the testing information included in contractor invoices and Division situation reports would have provided greater assurance that the Division only paid for administered tests.

Recommendation: We recommend that Division and Department management take steps to ensure that data regarding declared Statewide emergencies such as COVID-19 is subject to adequate review and control to promote complete and accurate reporting and appropriate payment of contractor invoices, as applicable.

Finding 5: Monitoring of Health Facility Data Reporting

To promote the timely and accurate reporting of health facility data during the COVID-19 pandemic, it was critical for the Agency to conduct and document data reporting monitoring activities, including verification that hospitals, nursing homes, and assisted living facilities reported census counts and information such as available beds, staff needed, ventilators in use, and face mask inventory daily. Effective monitoring activities also include an evaluation of the accuracy and completeness of reported data.

Our review of Agency ESS data collection and verification procedures found that, during the period March 2, 2020, through October 8, 2020, the Agency did not document its evaluation of the accuracy of the census counts or other COVID-19 related information reported by hospitals, nursing homes, and assisted living facilities. Such documented procedures could have included, for example, comparing bed census information to the total number of licensed beds. While Agency management indicated that data was reviewed for accuracy, no documentation to support the reviews was maintained. As shown in Table 1, our review of ESS records also disclosed that, although the Agency evaluated the completeness of reported data and took steps to promote reporting, such as e-mailing and calling health facilities that had not reported, health facilities did not always report required information.

Table 1
COVID-19 Daily Reporting by Facility Type

During the Applicable Period March 2, 2020, Through October 8, 2020

| Facility Type | Number of Facilities Reporting | Average Number of Facilities Reporting Daily | Average Number of Facilities Not Reporting Daily | Percentage of Facilities Not Reporting Daily |
|--------------------------------------|---------------------------------------|---|---|---|
| <i>Census Counts</i> | | | | |
| Hospitals | 303 | 285 | 18 | 5.9% |
| <i>Additional Information</i> | | | | |
| Hospitals | 303 | 296 | 7 | 2.3% |
| Nursing Homes | 690 | 614 | 76 | 11.0% |
| Assisted Living Facilities | 3,050 | 2,345 | 705 | 23.1% |

Source: ESS records.

According to Agency management, the data in the ESS was self-reported and was not intended to be a “source of truth” like validated data would be. Notwithstanding, documented Agency monitoring of the reasonableness of daily COVID-19 reporting by hospitals, nursing homes, and assisted living facilities and complete reporting by those entities would have better ensured and demonstrated that State officials had complete and accurate information upon which to make public health decisions.

Recommendation: We recommend that Agency management take steps to promote the accurate reporting by health facilities of all data required by Agency guidelines.

Follow-Up to Management's Response

Agency management indicated in their written response that the specific example to compare census to licensed beds may be misleading, as a provider may temporarily exceed their licensed capacity in certain statutorily defined emergency situations. However, the point of our finding was that the Agency did not document its evaluation of the accuracy of data reported by hospitals, nursing homes, and assisted living facilities. Any comparison of census information to the number of licensed beds would inherently consider circumstances where the census may exceed the number of licensed beds as provided for in State law. Consequently, the finding and related recommendation stand as presented.

INFORMATION TECHNOLOGY CONTROLS

State law¹² requires State agencies to establish information security controls to ensure the security of agency data, information, and information technology (IT) resources. Additionally, Department of Management Services (DMS) rules¹³ establish minimum security standards for ensuring the confidentiality, integrity, and availability of State agency data, information, and IT resources.

Finding 6: Merlin Access Controls

DMS rules¹⁴ require State agencies to periodically review user access privileges for appropriateness based on system categorization or assessed risk and to ensure that IT access privileges are removed when access to an IT resource is no longer required. Prompt action to deactivate access privileges is necessary to help prevent misuse of the access privileges.

As previously noted, Department personnel and contracted staff used and managed Merlin to collect data on reportable diseases and outbreaks, including COVID-19. As part of our audit, we evaluated IT user access privilege controls for Merlin and found that:

- The Department did not conduct periodic reviews of Merlin access privileges for system users located at Department headquarters. Additionally, while Department management indicated that the CHDs were required to conduct quarterly access reviews, our inquiries of management at two CHDs disclosed that one CHD (Miami-Dade) had not conducted any reviews and management of the other CHD (Leon) was unable to provide documentation evidencing the review for the quarter ended June 30, 2020, although CHD management indicated that the review had been conducted.
- Merlin access privileges were not always timely deactivated upon a user's separation from Department or contracted employment. Our comparison of Merlin records to People First¹⁵ and other records for 25 of the 581 user accounts that were deactivated during the period March 2020 through August 2020 found that 7 of the 9 user accounts remained active 2 to 63 business days (an average of 29 business days) after the users' employment separation dates. We also examined the records for 40 Merlin user accounts active as of November 2, 2020, that were associated with users who appeared to have separated from Department employment and

¹² Section 282.318(4), Florida Statutes.

¹³ DMS Rules, Chapter 60GG-2, Florida Administrative Code.

¹⁴ DMS Rule 60GG-2.003(1)(a)6. and 8., Florida Administrative Code.

¹⁵ People First is the State's human resource information system.

identified 16 accounts that were active 3 to 547 business days (an average of 132 business days) after the users' separation from Department employment.

In response to our audit inquiry, Department management indicated that periodic reviews of Merlin access privileges were not conducted due to resources being required for other duties during the COVID-19 pandemic. In addition, Department management indicated that the delays in deactivating user accounts were primarily due to delays in receiving notification or not receiving notification of an individual's separation from Department or contracted employment.

Periodic reviews of the appropriateness of Merlin user access privileges and prompt deactivation of access privileges upon a user's separation from Department or contracted employment would provide Department management assurance that user access privileges are authorized and remain appropriate and reduce the risk of unauthorized disclosure, modification, or destruction of Department data.

Recommendation: We recommend that Department management enhance IT access controls to ensure that periodic Merlin user access privilege reviews are performed and documented in Department records and ensure that Merlin user access privileges are promptly deactivated upon a user's separation from Department or contracted employment.

Finding 7: ESS Access Controls

DMS rules¹⁶ require State agencies to ensure that users are granted access to agency IT resources based on the principles of least privilege and a need to know determination and, as previously noted, to periodically review user access privileges for appropriateness and ensure that IT access privileges are removed when access to an IT resource is no longer required. The Agency used the ESS to collect from hospitals, nursing homes, assisted living facilities, and other health care facilities census data and other resource information such as the number of available beds. As part of our audit, we inquired of Agency management, evaluated Agency policies and procedures, and evaluated ESS access controls and found that:

- Contrary to the principle of least privilege, the Agency provided ESS update access privileges to all Agency employees. According to Agency management, update access privileges were required for all employees because the ESS was intended to be an emergency response tool and immediate workforce flexibility was necessary to ensure availability to respond to emergencies. However, Agency management also indicated that ESS data entry changes by Agency employees were not monitored for appropriateness.
- The Agency did not review the appropriateness of ESS user access privileges during the period March 2020 through August 2020. According to Agency management, the Agency relied on the employment termination process to ensure that ESS user accounts for separated employees were deactivated and Agency management indicated that accounts were deactivated after 30 days of inactivity.
- ESS access privileges were not always timely deactivated upon a user's separation from Agency employment. Our comparison of ESS records to People First records found that 11 of the 109 ESS Agency user accounts deactivated during the period March 2020 through August 2020 were not timely deactivated upon the users' separation from Agency employment. The 11 user accounts were deactivated 2 to 30 business days (an average of 8 business days) after the users' employment separation dates. In response to our audit inquiry, Agency management indicated

¹⁶ DMS Rule 60GG-2.003(1), Florida Administrative Code.

that the untimely deactivations of ESS access privileges were primarily due to employee supervisors not timely notifying the IT Help Desk of the employment separations.

Limiting access privileges to the minimum necessary to perform an employee's current job duties and the prompt deactivation of ESS user access privileges would reduce the potential for unauthorized disclosure, modification, or destruction of Agency data and IT resources by former employees or others. Additionally, periodic reviews of ESS user access privileges would provide Agency management assurance that user access privileges are authorized and remain appropriate.

Recommendation: We recommend that Agency management strengthen IT access controls to ensure that ESS user access privileges are limited to the minimum necessary for a user to perform their current job duties and deactivated immediately upon separation from Agency employment. We also recommend that Agency management perform and document periodic reviews of ESS user access privileges.

Follow-Up to Management's Response

Agency management indicated in their written response that the audit did not consider that ESS user access privileges are established regarding the level of information that may be viewed, the ability to input data into fields, and export data, and that internal users have a level of access based on their job function. Additionally, the Agency indicated that IT access controls ensuring that ESS user access privileges are limited to the minimum necessary and deactivated immediately upon separation from Agency employment "was and continues to be established Agency process." However, as noted in the finding, the Agency provided all employees update access privileges to the ESS, regardless of the employee's job function. Additionally, as the finding documents without contest by the Agency deficiencies regarding Agency processes for granting and deactivating access privileges, the finding and related recommendation stand as presented.

OBJECTIVES, SCOPE, AND METHODOLOGY

The Auditor General conducts operational audits of governmental entities to provide the Legislature, Florida's citizens, public entity management, and other stakeholders unbiased, timely, and relevant information for use in promoting government accountability and stewardship and improving government operations.

We conducted this operational audit from September 2020 through November 2021 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

To evaluate the State's readiness to provide essential information needed to respond to the global pandemic, this operational audit focused on COVID-19 data collection and reporting processes at the Agency for Health Care Administration (Agency), Department of Health (Department), and Division of Emergency Management (Division) during the period March 1, 2020, through October 9, 2020. For those areas, the objectives of the audit were to:

- Evaluate management's performance in establishing and maintaining internal controls, including controls designed to prevent and detect fraud, waste, and abuse, and in administering responsibilities in accordance with applicable laws, administrative rules, contracts, grant agreements, and other guidelines.
- Examine internal controls designed and placed into operation to promote and encourage the achievement of management's control objectives in the categories of compliance, economic and efficient operations, the reliability of records and reports, and the safeguarding of assets, and identify weaknesses in those internal controls.
- Identify statutory and fiscal changes that may be recommended to the Legislature pursuant to Section 11.45(7)(h), Florida Statutes.

This audit was designed to identify, for those programs, activities, or functions included within the scope of the audit, deficiencies in internal controls significant to our audit objectives; instances of noncompliance with applicable governing laws, rules, or contracts; and instances of inefficient or ineffective operational policies, procedures, or practices. The focus of this audit was to identify problems so that they may be corrected in such a way as to improve government accountability and efficiency and the stewardship of management. Professional judgment has been used in determining significance and audit risk and in selecting the particular transactions, legal compliance matters, records, and controls considered.

As described in more detail below, for those programs, activities, and functions included within the scope of our audit, our audit work included, but was not limited to, communicating to management and those charged with governance the scope, objectives, timing, overall methodology, and reporting of our audit; obtaining an understanding of the program, activity, or function; identifying and evaluating internal controls significant to our audit objectives; exercising professional judgment in considering significance and audit risk in the design and execution of the research, interviews, tests, analyses, and other procedures included in the audit methodology; obtaining reasonable assurance of the overall sufficiency and appropriateness of the evidence gathered in support of our audit's findings and conclusions; and reporting on the results of the audit as required by governing laws and auditing standards.

Our audit included the selection and examination of transactions and records. Unless otherwise indicated in this report, these transactions and records were not selected with the intent of statistically projecting the results, although we have presented for perspective, where practicable, information concerning relevant population value or size and quantifications relative to the items selected for examination.

An audit by its nature, does not include a review of all records and actions of agency management, staff, and vendors, and as a consequence, cannot be relied upon to identify all instances of noncompliance, fraud, abuse, or inefficiency.

In conducting our audit, we:

- Reviewed applicable laws, rules, Agency, Department, and Division policies and procedures, and other guidelines, and interviewed applicable personnel to obtain an understanding of COVID-19 data collection and reporting processes.
- Obtained an understanding of selected Department and Agency information technology (IT) controls, assessed the risks related to those controls, evaluated whether selected general and application IT controls for the Merlin and Emergency Status systems were in place, and tested the effectiveness of the selected controls.

- Analyzed Department records for the 11,290,817 COVID-19 laboratory test results reported to the Department and the 5,539,899 individual profiles created during the period March 1, 2020, through October 9, 2020, to determine whether the Department collected data to assess the spread of COVID-19 and whether the collected information was accurate and complete.
- Analyzed Department records for the COVID-19 laboratory test results reported during the period July 19, 2020, through October 4, 2020, by the three National Football League teams headquartered in the State to determine whether the data reported to the Department appeared to be complete.
- Interviewed Department management and reviewed Department guidance to determine whether Department guidance included adequate information on how laboratories were to report COVID-19 test results and how laboratories should report revisions to previously reported test results.
- From the population of 2,487 laboratories which reported COVID-19 test results during the period March 1, 2020, through October 9, 2020, examined records for 25 selected laboratories to determine whether the laboratories performing COVID-19 testing were properly certified.
- From the population of 243 COVID-19 dashboards and 27 antibody dashboards published on the Department's Web site during the period March 1, 2020, through October 9, 2020, examined Department records for 20 selected COVID-19 dashboards and 4 antibody dashboards to determine whether the data reported on the dashboards was accurate and complete.
- For the period March 1, 2020, through October 8, 2020, compared death records in Merlin to death records from the Bureau of Vital Statistics where COVID-19 was included as a cause or contributing factor of death to determine whether the Department accurately reported deaths related to COVID-19.
- Examined Department records as of October 9, 2020, for 9 data quality edit checks the Department performed on COVID-19 data to determine whether the Department adequately followed up on and resolved any identified data discrepancies.
- From the population of 729,552 confirmed COVID-19 positive cases reported during the period March 1, 2020, through October 9, 2020, examined Department records for 25 selected cases to determine whether the Department attempted to contact the individual within 48 hours of notification of diagnosis and continued contact efforts until the cessation of the individual's symptoms.
- Analyzed Merlin data for the 729,552 COVID-19 positive cases reported during the period March 1, 2020, through October 9, 2020, to determine whether the Department conducted contact tracing in accordance with Department guidance.
- Analyzed Agency COVID-19 data collected during the period March 1, 2020, through October 8, 2020, to determine whether the Agency collected data from hospitals, nursing homes, and assisted living facilities in accordance with Agency guidelines.
- Interviewed Agency management and examined Agency records to determine whether the Agency issued COVID-19 reporting guidance to hospitals, nursing homes, and assisted living facilities and whether the hospital guidance included information on how to count available intensive care unit beds and ventilators.
- From the population of 22 revisions to Agency COVID-19 data fields, examined records related to 5 selected revisions to determine whether the Agency promptly informed hospitals, nursing homes, and assisted living facilities of the revisions.
- Analyzed Agency COVID-19 data collected during the period March 1, 2020, through October 8, 2020, to determine whether the Agency ensured that hospitals, nursing homes, and

assisted living facilities reported COVID-19 information daily in accordance with Agency requirements.

- Performed inquiries of Agency management and evaluated Agency records to determine whether the Agency adequately monitored the timeliness and accuracy of COVID-19 data reporting by hospitals, nursing homes, and assisted living facilities. Specifically, we:
 - From the population of 153 reporting days during the period April 1, 2020, through August 31, 2020, examined Agency call lists for 10 selected reporting days to determine whether the Agency followed up with hospitals, nursing homes, and assisted living facilities that had not reported required COVID-19 data or if the reported data included anomalies.
 - From the population of 55 reporting days during the period May 28, 2020, through July 21, 2020, examined e-mails to nursing homes and assisted living facilities for 10 selected reporting days to determine whether the Agency followed up with nursing homes and assisted living facilities that did not report COVID-19 data daily.
- From the population of 651 Division emergency purchase orders, totaling \$880,604,313, executed during the period March 2020 through August 2020, examined records for 40 selected purchase orders, totaling \$178,760,902, to determine whether the purchase orders included the provisions required by State law and whether the purchases appeared reasonable.
- From the population of 8,116 Division payments, totaling \$1,430,659,012, related to COVID-19 procurements during the period March 2020 through August 2020, examined records for 40 selected payments, totaling \$87,423,871, to determine whether payments were appropriately supported, properly approved, and reasonable.
- From the population of 203 payments, totaling \$145,232,133, for laboratory processing of COVID-19 tests administered at State-led testing sites, examined documentation related to the reconciliation of supporting invoices for 10 selected payments, totaling \$15,471,302, to Division situation reports detailing the number of tests administered to determine whether payments were made only for administered tests.
- Interviewed Division and Department management to determine whether COVID-19 test results recorded on Division situation reports for State-led testing sites were reconciled to laboratory test results reported to the Department.
- Communicated on an interim basis with applicable officials to ensure the timely resolution of issues involving controls and noncompliance.
- Performed various other auditing procedures, including analytical procedures, as necessary, to accomplish the objectives of the audit.
- Prepared and submitted for management response the findings and recommendations that are included in this report and which describe the matters requiring corrective actions. Managements' responses are included in this report under the heading **MANAGEMENTS' RESPONSES**.

AUTHORITY

Section 11.45, Florida Statutes, requires that the Auditor General conduct an operational audit of each State agency on a periodic basis. Pursuant to the provisions of Section 11.45, Florida Statutes, I have directed that this report be prepared to present the results of our operational audit.

A handwritten signature in blue ink that reads "Sherrill F. Norman". The signature is fluid and cursive, with the first name "Sherrill" and last name "Norman" clearly legible, and "F." as a middle initial.

Sherrill F. Norman, CPA
Auditor General

MANAGEMENTS' RESPONSES

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STATE OF FLORIDA

DIVISION OF EMERGENCY MANAGEMENT

Ron DeSantis
Governor

Kevin Guthrie
Director

May 28, 2022

Sherrill F. Norman, CPA
Auditor General
Claude Pepper Building, Suite G74
111 West Madison Street
Tallahassee, Florida 32399-1450

Dear Ms. Norman:

We are providing this letter pursuant to section 11.45(4)(d), Florida Statutes, in connection with your audit of the COVID-19 Data Collection and Reporting at Selected State Entities.

In connection with your audit, we confirm the following:

Finding No. 4: Neither the Division nor the Department reconciled the reported number of COVID-19 tests administered at State-led testing sites to laboratory results reported to the Department. Additionally, Division records did not always evidence that the Division reconciled the number of COVID-19 tests invoiced by laboratories to the number of tests reported in Division situation reports.

Response: Due to the scale and scope of the COVID-19 activation and the multitude of state and private entities supporting state-led testing, the Florida Division of Emergency Management was reliant on the Florida Department of Health for all data reconciliation of patient confidential records. As the Florida Department of Health has the statutory requirements for monitoring infection disease reporting, the Division's focus was on the ability to provide testing to as many Floridians as possible and to provide logistical support for the overall COVID-19 response efforts.

Sincerely,

A handwritten signature in blue ink, appearing to read "K. Guthrie".

Kevin Guthrie, Director
Division of Emergency Management

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Ron DeSantis
Governor

Joseph A. Ladapo, MD, PhD
State Surgeon General

Vision: To be the Healthiest State in the Nation

May 25, 2022

Ms. Sherrill F. Norman, CPA
Auditor General
Suite G74, Claude Pepper Building
111 West Madison Street
Tallahassee, FL 32399-1450

Dear Ms. Norman:

We are pleased to respond to the preliminary and tentative audit findings and recommendations made during the Office of the Auditor General's audit of the *COVID-19 Data Collection and Reporting*. Our response to the findings, as required by section 11.45(4)(d), Florida Statutes, is enclosed.

We appreciate the efforts of you and your staff in assisting to improve our operations. Please contact Michael J. Bennett, CIA, CGAP, CIG, Inspector General, by calling 850-245-4141, should you have any questions.

Sincerely,

Joseph A. Ladapo, MD, PhD
State Surgeon General

JAP/akm
Enclosure

cc: Cassandra G. Pasley, BSN, JD, Chief of Staff
Weesam Khoury, Acting Deputy Chief of Staff
John Wilson, General Counsel
Kenneth A. Schepke, MD, FAEMS, Deputy Secretary for Health
Mike Mason, Assistant Deputy Secretary for Health
Melissa Jordan, MS, MPH, Assistant Deputy Secretary for Health
Carina Blackmore, DVM, PhD, Dipl ACVPM, State Epidemiologist,
Director, Division of Disease Control and Health Protection
Michael J. Bennett, CIA, CGAP, CIG, Inspector General

Florida Department of Health
Office of the State Surgeon General
4052 Bald Cypress Way, Bin A-00 • Tallahassee, FL 32399-1701
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FloridaHealth.gov



Preliminary and Tentative Findings



Report Number: To be determined

Report Title: COVID-19 Data Collection and Reporting - Operational Audit

Report Date: To be determined

| No. | Finding | Recommendation | Management Response | Corrective Action Plan |
|-----|---|---|---------------------|---|
| 1 | To evaluate the completeness of the death records in the Merlin system (Merlin), used by the Department of Health (Department) to collect COVID-19 data, we compared Merlin death records to Bureau of Vital Statistics (Vital Statistics) death records where COVID-19 was included as a cause or contributing factor of death and identified differences between the records. | We recommend that Department management take steps to ensure the accuracy and completeness of information regarding reportable diseases and outbreaks such as COVID-19. | We concur. | <p>In progress.</p> <p>There are several reasons why COVID-19 deaths counted by Vital Statistics are different from COVID-19 deaths counted in Department's surveillance reports.</p> <p>Vital Statistics deaths for COVID-19 are determined by the certifying physician completing the death certificate. For it to be considered a COVID-19 death within Vital Statistics records, COVID-19 needs to be listed on the death certificate either as an immediate cause, underlying cause, or a significant condition contributing to death. Additionally, Vital Statistics deaths are counted in the jurisdiction where the individual died and not where the individual lived.</p> <p>COVID-19 associated deaths counted for public health surveillance purposes are classified using a national case definition that classifies a COVID-19 case based on a recent positive COVID-19 laboratory test result, symptom and exposure criteria. Vital Statistics deaths are also included in the national case definition, but COVID-19 does not need to be listed on the death certificate for the death to count as a COVID-19 associated surveillance death. In addition, a COVID-19 surveillance death is reported based on where the individual lived and not where they died. During the time period of interest, Vital Statistics and surveillance data matching was performed manually by four trained epidemiologists who matched records in the two systems with identical or near identical demographic information (name, address, birth date, gender, race/ethnicity).</p> <p>Because of the differences in the process used to classify COVID-19 Vital Statistics deaths compared to COVID-19 associated surveillance deaths, differences in the number of deaths reported by the two systems are expected. If COVID-19 testing was not performed, occurred more than 30 days before the death, was not reported to the Department, or could not be matched to a Vital Statistics record because of data quality deficiencies, the death would not be counted as a COVID-19 associated surveillance death included in the Department's COVID-19 surveillance reports.</p> |

Preliminary and Tentative Findings - COVID-19 Data Collection and Reporting - Operational Audit

| No. | Finding | Recommendation | Management Response | Corrective Action Plan |
|-----|---|--|---------------------|---|
| | | | | <p>The Department is constantly exploring opportunities to capture timely and complete data for reportable diseases and conditions. During the COVID-19 response, the Department expanded electronic laboratory reporting, which improved the quality and completeness of laboratory test results reporting. The Department also established electronic linkage between Merlin, the database where surveillance data are kept, with the Vital Statistics database. As the response progressed, this greatly helped in capturing more timely and complete data on COVID-19 deaths. The Department is also working towards implementing and expanding electronic case reporting (eCR), which will provide complete medical records for cases electronically. Getting these data through eCR will give the Department another resource of timely and complete data. Lastly, as the Department continues to move forward in data modernization and science, additional data sources will be explored for supplementation purposes.</p> <p><i>Anticipated Completion Date: June 30, 2023</i></p> |
| 2 | Certain COVID-19 data included in Merlin did not appear complete or contained anomalies that would limit the accuracy and usefulness of reported information. | We recommend that Department management take appropriate actions to ensure that public health data collected and reported is accurate and complete. Such actions should include the performance of edit checks and analyses, where practical and available, to detect errors, inconsistencies, and outliers in the data and efforts to resolve any issues noted. | We concur. | <p>In progress.</p> <p>The Surveillance Section (Section) within the Bureau of Epidemiology (Bureau) is pursuing the implementation of data quality practices that our data systems can perform in an automated fashion as opposed to a manual process. Such practices include the rejection and auto-correction of incomplete or inaccurate data. Implementing these automated data quality practices is a top priority for the Section.</p> <p>However, it should be noted that most data quality issues the Department experienced during the COVID-19 pandemic originated from laboratories that submitted inaccurate or incomplete data to the Department. Challenges included receiving data from many new laboratories and other facilities with limited experience in reporting laboratory test results to the Department prior to the COVID-19 pandemic. The Department relies on laboratories and other facilities conducting COVID-19 tests to report their patients' test results with complete and accurate data. The Department continues to work with laboratories to ensure that COVID-19 test result data is reported timely and accurately.</p> <p><i>Anticipated Completion Date: June 30, 2023</i></p> |

Preliminary and Tentative Findings - COVID-19 Data Collection and Reporting - Operational Audit

| No. | Finding | Recommendation | Management Response | Corrective Action Plan |
|-----|--|---|---------------------|---|
| 3 | Department records did not always evidence that COVID-19 positive individuals were contacted, or timely contacted, in accordance with Department contact tracing guidance. | We recommend that Department management ensure that contact tracing activities are conducted in accordance with Department guidance and appropriately documented in Department records. | We concur. | <p>Completed.</p> <p>The Department no longer recommends that county health departments (CHD) perform investigations, or contact, every reported case of COVID-19 (i.e., all COVID-19 positive individuals). On January 11, 2022, the Bureau provided updated COVID-19 case investigation recommendations to CHDs which were aimed at improving the Department's response to COVID-19 investigations in high-risk congregate settings. The Bureau continues to monitor investigations in high-risk congregate settings weekly. Conducting routine case interviews and contact tracing for all COVID-19 cases is no longer an objective for the Department, nor is it part of the Department's guidance.</p> <p>Prior to the above-mentioned guidance update, the Bureau completed a number of corrective actions in an effort to address the documented findings. In 2020, the Department added the ability to document case and contact follow-up attempts and outcomes. Furthermore, on June 23, 2020, the Department hosted a statewide training on the utilization of the recently implemented COVID-19 contact tracing task list in Merlin. Also in 2020, the Department provided access to the Centers for Disease Control and Prevention Text Illness Monitoring system to facilitate COVID-19 contact and case follow-up monitoring, and in November 2020, the Department went live with a mobile application, which enabled Florida residents to obtain their COVID-19 test results securely and electronically, as well as answer survey questions about their COVID-19 infection and provide close contacts to the Department through the application for contact tracing. The Department also hired a large number of case investigators available to offset CHD caseloads.</p> <p>Despite these corrective actions, data quality issues including case reports with missing or inaccurate contact information (e.g., name, address, phone number) along with the volume of reported cases during surges proved to be persistent barriers to case investigations. During the audit period, weekly case counts peaked at 80,000, and throughout the period, they averaged at 23,000 cases per week, 39 times higher than the average weekly total reportable disease count in 2019. After the audit period, weekly case counts peaked at 427,000, and throughout the period, they averaged at 63,000 cases per week. Contact tracing is a very resource intensive activity. Successfully, contacting tens of thousands of persons per week, especially when case data are oftentimes inaccurate or incomplete, is very challenging. It should be noted that other jurisdictions in the United States experienced similar challenges with contact tracing.</p> |

Preliminary and Tentative Findings - COVID-19 Data Collection and Reporting - Operational Audit

| No. | Finding | Recommendation | Management Response | Corrective Action Plan |
|-----|--|---|---------------------|--|
| 4 | Neither the Division of Emergency Management (Division) nor the Department reconciled the reported number of COVID-19 tests administered at State-led testing sites to laboratory results reported to the Department. Additionally, Division records did not always evidence that the Division reconciled the number of COVID-19 tests invoiced by laboratories to the number of tests reported in Division situation reports. | We recommend that Department management take steps to ensure that data regarding declared Statewide emergencies such as COVID-19 is subject to adequate review and control to promote complete and accurate reporting and appropriate payment of contractor invoices, as applicable. | We concur. | <p>In progress.</p> <p>The Department has the ability to match patient level electronic testing data to testing data reported in Merlin. The matching would allow us to determine completeness of public health reporting of data and can also serve as a way to verify that the invoice is accurate.</p> <p>The Department will draft standard language requiring electronic data management and reporting of patient level demographic information for auditing purposes in contractual agreements for testing paid for by the Department. The Department will share the standardized language with the Division and the Department of Management Services.</p> <p><i>Anticipated Completion Date: December 31, 2022</i></p> |
| 6 | Controls over access to Merlin need improvement to reduce the risk of unauthorized disclosure, modification, or destruction of Department data. | We recommend that Department management enhance information technology (IT) access controls to ensure that periodic Merlin user access privilege reviews are performed and documented in Department records and ensure that Merlin user access privileges are promptly deactivated upon a user's separation from Department or contracted employment. | We concur. | <p>In progress.</p> <p>The Department will review options and implement a new process to promptly deactivate Merlin accounts when users are separated from the Department. The Department will work to identify a way to be notified promptly of an employee's separation.</p> <p>However, it is important to note that to access Merlin, users must be on the Department's IT network and have an active Department user login. As soon as a user is separated from the Department, they cannot access Merlin because they are unable to access the Department's IT network, even if it is still showing the Merlin account as active. A user must be a current Department employee to access Merlin.</p> <p><i>Anticipated Completion Date: December 30, 2022</i></p> |



RON DESANTIS
GOVERNOR

SIMONE MARSTILLER
SECRETARY

May 26, 2022

Ms. Sherrill F. Norman
Auditor General
Claude Denson Pepper Building, Suite G74
111 West Madison Street
Tallahassee, FL 32399-1450

Dear Ms. Norman:

Thank you for the opportunity to respond to the preliminary and tentative audit findings and recommendations from your operational audit of COVID-19 Data Collection and Reporting at Selected State Entities.

In accordance with your request, we have emailed you the preliminary and tentative audit findings document with our response incorporated therein. If you have any questions regarding our response, please contact Karen Preacher, Audit Director, at 850-412-3968.

Sincerely,

Simone Marstiller
Secretary

SM/sgb
Enclosure

2727 Mahan Drive • Mail Stop #1
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**Agency for Health Care Administration
Auditor General Operational Audit 2021
COVID-19 Data Collection and Reporting at Selected State Entities**

Collection and Reporting of COVID-19 Data

Finding No. 5:

Monitoring of Health Facility Data Reporting

Agency records did not evidence the evaluation of the accuracy of COVID-19 data reported by hospitals, nursing homes, and assisted living facilities and such facilities did not always report required information.

Recommendation:

We recommend that Agency management take steps to promote the accurate reporting by health facilities of all data required by Agency guidelines.

Agency Response:

The Emergency Status System (ESS) was initially built to collect a limited amount of data during hurricanes and severe weather events. It was not intended to be used for emergencies outside of this scope, having been built for a specific purpose that provided an avenue for licensed health care facilities to provide information regarding the impact of a tropical weather event to their physical facility and/or individuals under their care.

When presented with the complexities of the data required for the pandemic, the Agency utilized the existing resources to modify the system to aid in accurate and timely reporting by health systems within a week's time. While items such as bed availability and resource needs were already built into ESS data fields, data related to COVID positive patients was not. It should be noted the data needed fluctuated during the timeframe of the audit which requires an agile system. ESS was not designed to be agile in nature and all modifications had to be made manually. As data requirements changed, the Agency worked alongside state and local partners to update these fields and communicate these changes.

It should be noted the specific example given in finding 5 to compare census to licensed beds may be misleading. Pursuant to s. 408.821(2), Florida Statutes (F.S.) a provider may temporarily exceed their licensed capacity to act as a receiving provider in accordance with an approved emergency operations plan for up to 15 days. Given this, the auditor may not have a full understanding of the health facility licensing process in Florida.

The Agency consistently worked alongside licensed health care providers in reporting accurate data. However, data is only as accurate as the person who is submitting it into the system. Throughout the pandemic, the Agency worked with providers who may have inaccurately reported information through direct contact around the clock. The finding is extremely general in nature and does not account for the level of effort and work public servants and health care providers did to ensure this information was collected timely and accurately.

Regarding the portion of Finding 5 which states, "such facilities did not always report required information." Please note that in any ESS event, the Agency uses all available outreach mechanisms to ensure timely and accurate responses, including working trade associations, and other state and local partners to communicate needs. Agency Employees worked well outside their job descriptions to serve their state, and this should be commended.

**Agency for Health Care Administration
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COVID-19 Data Collection and Reporting at Selected State Entities**

During the 2022 Legislative Session, the Agency received \$340,000 in funding to support the continued modernization of ESS into a more agile Health Facility Reporting Tool that will be a better resource for future events. Additionally, the funds will allow the Agency to make modifications to provide better workflow management, conduct routine drills and exercises, provide notification to users, and better manage access controls.

Although the Agency maintains that it collected high quality data that was instrumental in the COVID response, it will continue to work to address opportunities for improvements that sync with the finding and recommendation including:

- Standardize the reporting naming convention so that reports can be easily reviewed to determine their purpose.
- Develop a Quality Assurance (QA) process for data which would include QA reports and system modifications to reduce data entry errors.
- Determine measures to ensure compliance with reporting requirements.

Anticipated Completion Date:

HQA: December 31, 2022

Agency Contact:

Ryan Fitch, Central Services Bureau Chief

Information Technology Controls

Finding No. 7:

ESS Access Controls

Agency user access privilege controls for the Emergency Status System (ESS) need enhancement to better prevent and detect inappropriate access to the ESS.

Recommendation:

We recommend that Agency management strengthen IT access controls to ensure that ESS user access privileges are limited to the minimum necessary for a user to perform their current job duties and deactivated immediately upon separation from Agency employment. We also recommend that Agency management perform and document periodic reviews of ESS user access privileges.

Agency Response:

The Agency takes information and data security seriously pursuant to Chapter 282.318, F.S. This includes having established standards for both internal and external users accessing Agency IT systems and applications, such as the Emergency Status System (ESS).

While the audit provides a broad level overview of ESS, it does not consider that user access privileges are established for both internal and external users regarding the level of information that may be viewed, the ability to input data into fields, and export data (internal).

As referenced in Finding 5, ESS was initially built using internal resources to respond to severe weather events with a limited duration, such as a hurricane. Given the sporadic use based on hurricane season, external user access was extremely limited. Additionally, the level of

**Agency for Health Care Administration
Auditor General Operational Audit 2021
COVID-19 Data Collection and Reporting at Selected State Entities**

information health care facilities were asked to provide during hurricane season was minute in comparison to the level of data points needed during the pandemic. To ensure that information was provided timely and accurately, health care facilities did have more individuals using the system than in prior events. However, the level of access was unchanged.

Regarding Finding 7, it should be noted the finding related to strengthening, "IT access controls to ensure that ESS user access privileges are limited to the minimum necessary for a user to perform their current job duties and deactivated immediately upon separation from Agency employment." This was and continues to be established Agency process as outlined below:

Agency Account Deactivation:

Access to the ESS for members of the Agency's workforce requires an active Agency Active Directory (AD) account. These accounts are required to be terminated on the last day of employment. To ensure accounts are disabled timely, IT Security monitors an active report which compares employment status to AD status so that outliers can be corrected immediately. Staff that authorize ESS access retires all ESS specialized users from AD annually and validates appropriate access privileges. This review is documented by authorizing staff.

ESS User Privileges:

Regarding ESS access controls, readers should note that while internal users have a level of access based on their job function, external users only have access to a specific event and may only provide information at the request of the Agency. When a specific weather and/or emergency related event is closed within ESS, access to such event is no longer accessible to all external users and internal users who are not classified as an administrator.

Anticipated Completion Date:

In May 2021, the Division of IT implemented the following Corrective Action: IT Security monitors an active report which compares employment status to AD status so that outliers can be corrected immediately.

Agency Contact:

William Armstrong, Information Security Manager
Ryan Fitch, Central Services Bureau Chief