



TEXAS

Health and Human Services

Texas Department of State
Health Services

Covid-19 Updated Lab Reporting Requirements for CSV Submitters

**Public Health Informatics and
Data Exchange (PHID) Team**

December 11, 2020

Goal & Outline



Health and Human
Services

Texas Department of State
Health Services

Overall Goal:

- Review new 56-column template including **7 required** Ask on Order Entry (AOE) questions
- Improve data quality and timeliness of COVID-19 lab test results in Texas

Outline:

1. Background
 - a. Reporting requirements
2. Review new 56-column template with AOE questions
 - a. AOE questions
 - b. Other changes to previous variables
 - c. Lab reporting template and data dictionary review
3. Validation errors and corrections
4. FAQs
5. Resources and tools
6. Questions and comments

ELR Reporting Options



Health and Human
Services

Texas Department of State
Health Services

- **Ideal standard:** Health Level 7 International (HL7) version 2.5.1
- Other option: CSV formatted (MS-DOS) file until able to achieve HL7

****If interested in switching to HL7, please email COVID-19ELR@dshs.texas.gov and we will go over the process**

Reporting Requirements



Health and Human
Services

Texas Department of State
Health Services

- Texas:
 - Governor's Executive Reporting Order
 - Texas Administrative Code Chapter 97 Subchapter A Control of Communicable Diseases
- Federal:
 - Coronavirus Aid Relief and Economic Security Act (CARES)
 - HHS
 - CDC

Failure to report a notifiable condition is a Class B misdemeanor under the Texas Health and Safety Code §81.049.

What Reporting Requirements Are Fulfilled by Submitting ELRs to NEDSS?

Facility Type	Fulfills CARE Federal/CDC Reporting Reqt?	Fulfills DSHS State Reporting Reqt?	Fulfills Local HD or Regional HD Reporting Reqt?	Notes
Hospital lab	Yes	Yes	Check with local jurisdiction to ensure you are in compliance with their local requests.	Clinicians and infection control staff will still need to adhere to local guidance on immediate reporting of COVID-19
Clinic lab	Yes	Yes	Check with local jurisdiction to ensure you are in compliance with their local requests.	Clinicians and infection control staff will still need to adhere to local guidance on immediate reporting of COVID-19
Commercial/private lab	Yes	Yes	Local health authorities may request a direct feed	
Reference lab	Yes	Yes	Local health authorities may request a direct feed	
Critical Access Care Centers	Yes	Yes	Check with local jurisdiction to ensure you are in compliance with their local requests.	Clinicians and infection control staff will still need to adhere to local guidance on immediate reporting of COVID-19

Reporting by laboratories does not nullify the health care provider's or institution's obligation to report these diseases and conditions, nor does reporting by health care providers nullify the laboratory's obligation to report.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★



TEXAS

Health and Human Services

Texas Department of State
Health Services

12/14/2020

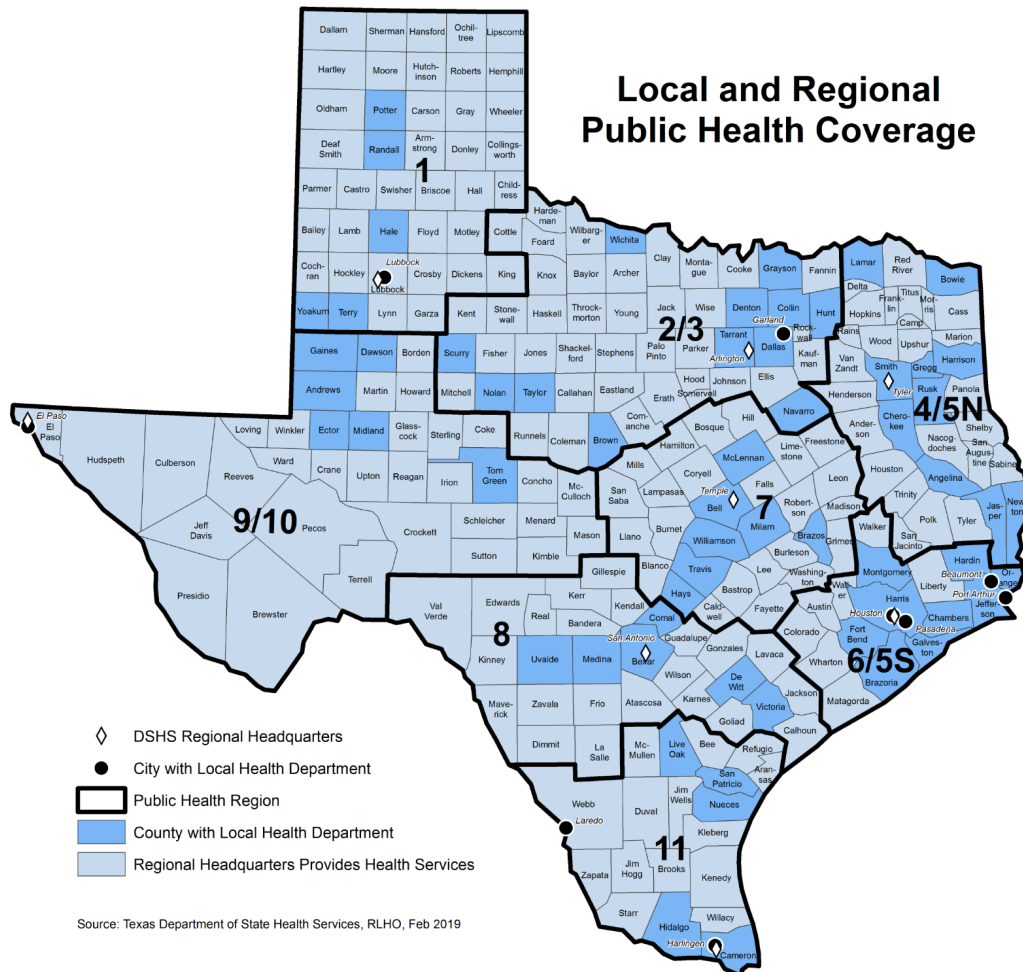
Texas Public Health Jurisdictions



Health and Human
Services

Texas Department of State
Health Services

Local and Regional Public Health Coverage



[https://www.dshs.texas.gov/regions/Coronavirus-\(2019-nCoV\)-Local-Health-Entities/](https://www.dshs.texas.gov/regions/Coronavirus-(2019-nCoV)-Local-Health-Entities/)

COVID-19 Lab Statistics



Health and Human
Services

Texas Department of State
Health Services

- Pre-COVID: around **100 labs** submitting labs to DSHS
- Post-COVID: Over **3,600 facilities** have registered
 - **2,000** of them are currently submitting COVID test results
 - **13 million** COVID test results have been submitted to us
 - Average **120k** per day

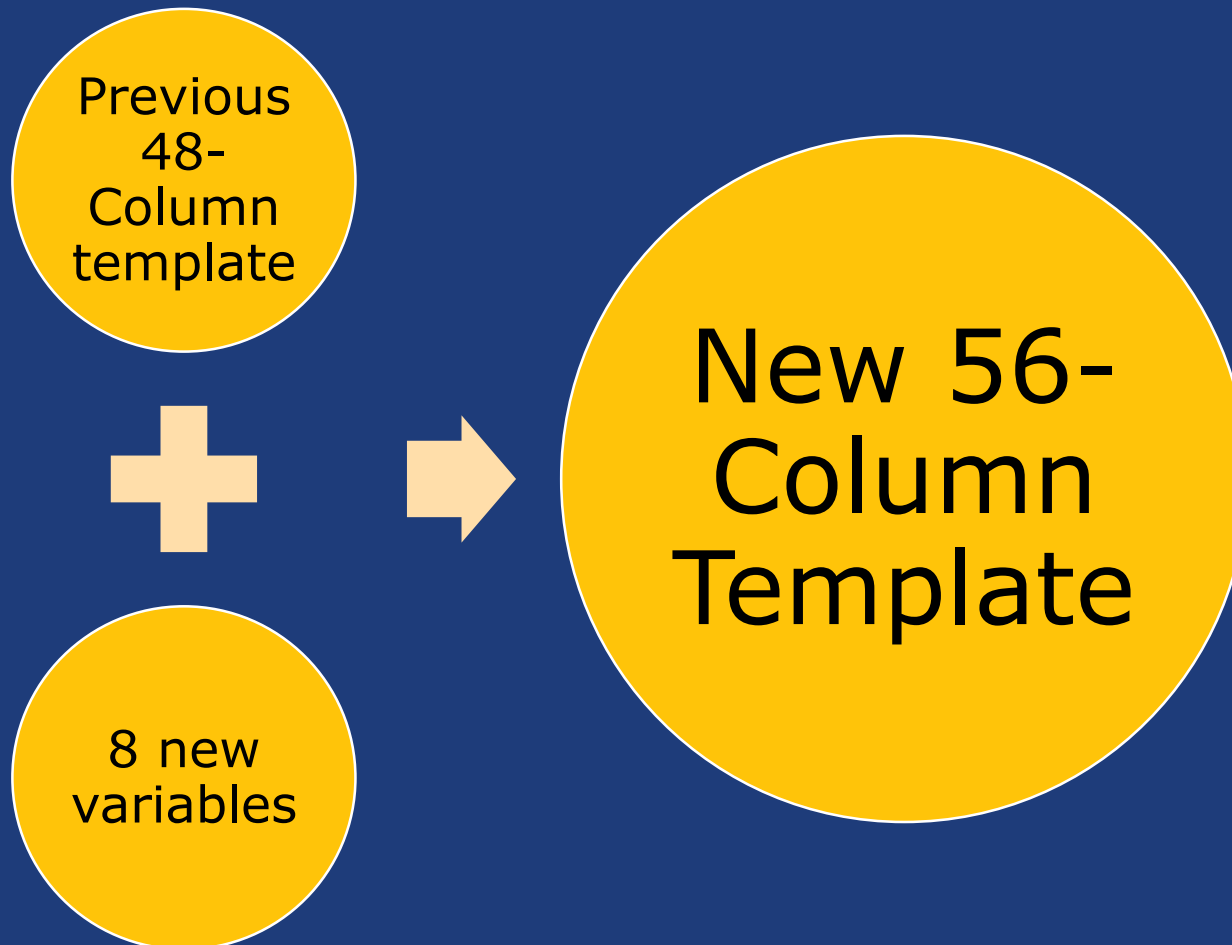


New 56-Column Template



Health and Human
Services

Texas Department of State
Health Services



List of Required Fields (56 Variables)



Health and Human
Services

Texas Department of State
Health Services

A	Reporting_Facility_Name	AC	Pt_Zip
B	CLIA_Number	AD	Pt_County
C	Performing_Organization_Name	AE	Accession_Number
D	Performing_Organization_Address	AF	Ordering_Facility
E	Performing_Organization_City	AG	Ordering_Facility_Address
F	Performing_Organization_Zip	AH	Ordering_Facility_City
G	Performing_Organization_State	AI	Ordering_Facility_State
H	Device_Identifier	AJ	Ordering_Facility_Zip
I	Ordered_Test_Name	AK	Ordering_Provider_Last_Name
J	LOINC_Code	AL	Ordering_Provider_First_Name
K	LOINC_Text	AM	Ordering_Provider_NPI
L	Result	AN	Ordering_Provider_Street_Address
M	Result_Units	AO	Ordering_Provider_City
N	Reference_Range	AP	Ordering_Provider_State
O	Date_Test_Performed	AQ	Ordering_Provider_Zip
P	Test_Result_Date	AR	Ordering_Provider_Phone
Q	Pt_Fname	AS	Specimen_ID
R	Pt_Middle_Initial	AT	Specimen_Type
S	Pt_Lname	AU	Date_Test_Ordered
T	Date_of_Birth	AV	Date_Specimen_Collected
U	Patient_Age	AW	Medical_Record_Number
V	Sex	AX	Employed_in_healthcare
W	Pt_Race	AY	Symptomatic_per_cdc
X	Pt_Ethnicity	AZ	<i>Date_of_Symptom_Onset</i>
Y	Pt_Phone	BA	Hospitalized
Z	Pt_Str	BB	ICU
AA	Pt_City	BC	Resident_in_Congregate_Care
AB	Pt_ST	BD	Pregnant

New Questions



Health and Human
Services

Texas Department of State
Health Services

1. Medical Record Number

- Optional field; leave BLANK if not available

2. Employed in Healthcare?

- The patient being tested for COVID-19 is in direct contact with patients in a healthcare setting. (Ex: any healthcare provider, physician, physician assistant, dentist, nurse, medical assistant, etc.)

3. Symptomatic per CDC?

- The patient being tested for COVID-19 has experienced at least one or more of the symptoms directly related to the COVID-19 symptoms indicated by CDC.

4. Date of Symptom Onset?

- The date of symptom onset indicates when the patient first started experiencing symptoms of COVID-19.

New Questions



Health and Human
Services

Texas Department of State
Health Services

5. Hospitalized?

- The patient being tested for COVID-19 is currently admitted in the hospital. (Ex: inpatient) This does not include outpatients who have visited the emergency room and were released.

6. ICU?

- The patient being tested for COVID-19 is currently admitted into an intensive care unit (ICU).

7. Resident in Congregate Care Setting?

- The patient being tested for COVID-19 resides, meets or gathers in close proximity with other individuals for either a limited or extended period of time (Ex: nursing home, assisted living, residential care for people with intellectual and developmental disabilities, psychiatric treatment facilities, homeless shelters, group homes, foster care, etc.)

8. Pregnant?

- The patient being tested for COVID-19 is actively pregnant or clinically tested positive for pregnancy.

AOE QUESTIONS TO EXCLUDE



Health and Human
Services

Texas Department of State
Health Services

- Please do NOT include the **OPTIONAL** AOE questions
 - Additional columns/questions will cause errors
- Only **REQUIRED** AOE questions need to be included
- <https://www.hhs.gov/sites/default/files/hhs-guidance-implementation.pdf>

DATA DICTIONARY



Health and Human
Services

Texas Department of State
Health Services

- Details for each required data element explained

- New field: Permitted Response Options= Acceptable values for each field described

- Alternative entries for UNKNOWN values
- Links to LOINC Codes look up provided within

56_Column_DataDictionary_20201201.xlsx [Read-Only] - Excel

File Home Insert Draw Page Layout Formulas Data Review View Tell me what you want to do

Clipboard Font Alignment Number Styles

Normal Bad Good Neutral Calculat... Check Cell Explanat... Followed

Formula Bar

Data Dictionary for COVID-19 Laboratory Data 56-Column AOE Submission Template

COMMAS IN ANY FIELDS AS THIS WILL CAUSE ERRORS IN VALIDATION. All ELR files must be saved and submitted as CSV (MS-DOS) file format type. Files should be submitted using the following naming convention: `StateofSubmission.CSV`. Test files must include the word TEST and should be named like `TEST_LegalFacilityName_CLIA_YYYYMMDD(DatefiletoAccepted).CSV`.

Variable Name	In CARES ACT (Y/N)	Description	Format	Permitted Response Options	Response Descriptions	Notes	Helpful websites
Ordering_Provider_Street_Address	Y	Ordering provider street address.	String			Commas are NOT permitted.	
Ordering_Provider_City	Y	Ordering provider city	String				
Ordering_Provider_State	Y	Ordering provider state	String	Click here for a list of acceptable state values.	Two-character abbreviation (e.g., TN)	Only the two-letter abbreviations are permitted. Must be uppercase. Can be 5 or 9 digits. Example: 78756, 787561234, or 78756-1234. If ordering provider is outside of the United States, enter 99999. Do NOT provide extensions or descriptions such as Cell, HOME, WORK, etc. Example: 512-123-4567. Not acceptable: 512-123-4567 ext. 13	
Ordering_Provider_Zip	Y	Ordering provider ZIP	Numeric-String		ZIP or ZIP+4 (5 or 9 digit)		
Ordering_Provider_Phone	Y	Ordering provider phone number	String		10 digits only. No country codes or extensions.		
Specimen_ID	Y	Unique ID for the specimen	String		A unique ID given to every specimen taken from a patient or individual.	You are allowed to utilize the same value for accession and specimen ID.	
Specimen_Type	Y	Specimen type (e.g., blood/serum, nasopharyngeal, oropharyngeal, sputum, etc.)	String		Text description of where the specimen originated from the patient. Use the examples on the left for guidance, or refer to the package insert of your test kit or device.	Do NOT use numerical SNOMED (Systemic Nomenclature of Medicine) values. You may not use Unknown in this field.	
Date_Test_Ordered	Y	Date test was ordered	Date	MM/DD/YYYY	Enter date test was ordered in the format MM/DD/YYYY = month/date/year. Example: 1/1/2020	Do not include timestamps.	
Date_Specimen_Collected	Y	The date the specimen was collected	Date	MM/DD/YYYY	Enter date specimen was collected in the format MM/DD/YYYY = month/date/year. Example: 1/1/2020	Do not include timestamps.	
Medical_Record_Number	N	Medical Record Number (MRN)	String		The medical record number applies only if the person being tested is a patient in your facility. If the person being tested is not a patient (ex. An employee, volunteer, or contractor not being treated by your facility), leave this field blank.	The medical record number is organization specific. The number is used by the hospital as a systematic documentation of a patient's medical history and care during each hospital stay.	
Employed_in_healthcare	Y	Ask on Order Entry (AOE): Employed in healthcare	String	Y N U	Yes No Unknown	Is the patient employed in healthcare with direct patient contact ? Use only the abbreviated values on the left.	
Symptomatic_per_cdc	Y	AOE: Symptomatic per CDC?	String	Y N U	Yes No Unknown	Was the patient symptomatic per CDC? Use only the abbreviated values on the left. Click here for a list of COVID-19 symptoms. Official list of COVID-19 symptoms from CDC	
					The date that the patient started experiencing symptoms of COVID-19	If yes, then date of symptom onset. If	

New Template Implementation Date



Health and Human
Services

Texas Department of State
Health Services

New 56-Column should be implemented in
ELR submission files to DSHS by:

January 15, 2021

LOOKING UP LOINC CODES



Health and Human
Services

Texas Department of State
Health Services

<https://www.cdc.gov/csels/dls/sars-cov-2-livd-codes.html>

- In the LIVD section click download the Mapping tool Excel file
- Open the excel file and go to the Mapping tab of the file

523				
524				
525				
526				
527				
528				

- In the tab use the search command (CTRL+ F) to find your facility test name
- Retrieve the LOINC Code and LOINC text name for data entry.

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People™

Search

Advanced Search

Division of Laboratory Systems (DLS)

DLS Home

[DLS Home](#)

About Us

LIVD Mapping Tool for SARS-CoV-2 Tests

Strengthening Clinical Laboratories

CDC's Laboratory Outreach Communication System (LOCS)

Laboratory Communicators' Network

Free Educational Materials for

LOINC In Vitro Diagnostic (LIVD) Test Code Mapping for SARS-CoV-2 Tests

On June 4, 2020, the Department of Health and Human Services (HHS) announced new laboratory data reporting [guidance](#) for COVID-19 testing. Using LOINC and SNOMED-CT to identify and report SARS-CoV-2 test results in electronic reporting systems will facilitate timely and quality data reporting to state and federal public health agencies. The following document (developed per the [LIVD specification](#)) provides LOINC and SNOMED mappings for SARS-CoV-2 diagnostic tests available in the United States. The LIVD mapping catalogue provides coding for these data elements: LOINC test order, LOINC test result, SNOMED-CT test description, SNOMED-CT specimen source, and Device Identifier.

Mapping tool: [LIVD SARS-CoV-2 Test Codes.xlsx](#)
LIVD publication date 2020-10-22.

CDC and its partners will review and update this tool as needed for new or discontinued tests. For more information or to contact CDC about this tool, email DLSinquiries@cdc.gov and use "LIVD Test Code Mapping Tool" in the subject line.

Accession No.



Health and Human
Services

Texas Department of State
Health Services

- If the test and collections dates are the same, **accession numbers must be unique** and can't be duplicated in the same file.
 - Even if the same individual was tested twice, on the same day, the accession number must be unique
- For a panel test, the accession numbers can be the same, as long as the ordered test name, LOINC code, and LOINC text are different
- **Can't have unknown values or N/A**

Device ID



Health and Human
Services

Texas Department of State
Health Services

- Visit <https://accessgudid.nlm.nih.gov/> and search for the device. Use the **primary DI number**
 - Make sure that the value is formatted properly and the value is preserved when being reported
- If you are unable to locate your device, use the model of the device as the device identifier

Submitting Corrected/Updated Files



Health and Human
Services

Texas Department of State
Health Services

Only include errored/problematic records in
corrected/updated file



Do NOT include good records that were previously
successfully processed (this slows overall ELR processing)



File name should include 'Corrected' in file title, for example:

Corrected_LabABC_45D1234567_20201206.csv

Common Errors to Avoid



Health and Human
Services

Texas Department of State
Health Services

~~Commas~~



Do not include commas in any columns

Inclusion of commas will
cause shifting of data

Be sure to remove commas
from address fields

Common Errors to Avoid (cont.)



Health and Human
Services

Texas Department of State
Health Services

File name

- Not properly formatted
- Should be *Facilityname_CLIA_ID_YYYYMMDD.CSV*

File type

- Not saved as a CSV (MS-DOS) file format

Missing columns

- All 56-columns must be included

Inserting additional columns

- File should only include 56-columns
- Do NOT include any other columns

Column order

- Do not change column order

Common Errors to Avoid (cont.2)



Health and Human
Services

Texas Department of State
Health Services

Blanks

- Address and Phone fields cannot be blank
- If address is unknown, enter Unknown
- If Phone is unknown, enter 999-999-9999

Unknowns

- Be sure to adhere to the Permitted Values column in Data Dictionary and notes to determine how to capture unknown values

Dates

- MM/DD/YYYY
- Should not include a time stamp

Phone numbers

- Must be in ###-###-#### format
- Do not include extensions or phone types (e.g. home, cell)
- Patient phone is required for expedited follow-up

1. Do all COVID-19 results for Texas residents need to be reported?

Yes. ALL positive, negative and indeterminate results must be reported.

2. We are unable to report results through our EHR, can we fax or email results instead?

No. If your facility is unable to send results via your EHR (HL7), you may send them via sFTP client using the template provided by us, once we receive your registrations. DO NOT fax or email us any patient results.

3. Do we need to report COVID-19 antibody testing to you as well?

Yes. Positive, negative and indeterminate antibody results should be reported to the state.

4. How often should I submit files?

Files should be submitted daily (one large aggregate file for those using the CSV template), in order to reflect accurate data.

Links to Resources and Tools

1. New DSHS resource webpage for lab submitters: <https://www.dshs.texas.gov/coronavirus/submitters.aspx>
 - a. CSV Reporting Guidelines
 - b. New template and data dictionary
 - c. Tips/handouts
2. CARES Act: <https://home.treasury.gov/policy-issues/cares>
3. **LOINC** <https://www.cdc.gov/csels/dls/sars-cov-2-livd-codes.html> <https://loinc.org/sars-cov-2-and-covid-19/>
4. **SNOMED** <https://confluence.ihtsdotools.org/display/snomed/SNOMED%2BCT%2BCOVID-19%2BRelated%2BContent>
5. **U.S. National Library of Medicine** <https://accessgudid.nlm.nih.gov/>

★ ★ ★ ★ ★ ★ ★ ★ ★ ★



TEXAS
Health and Human Services

Texas Department of State
Health Services

12/14/2020

Contact Info



Health and Human
Services

Texas Department of State
Health Services

For any questions or concerns
with lab reporting, please
contact:

COVID-19ELR@dshs.texas.gov