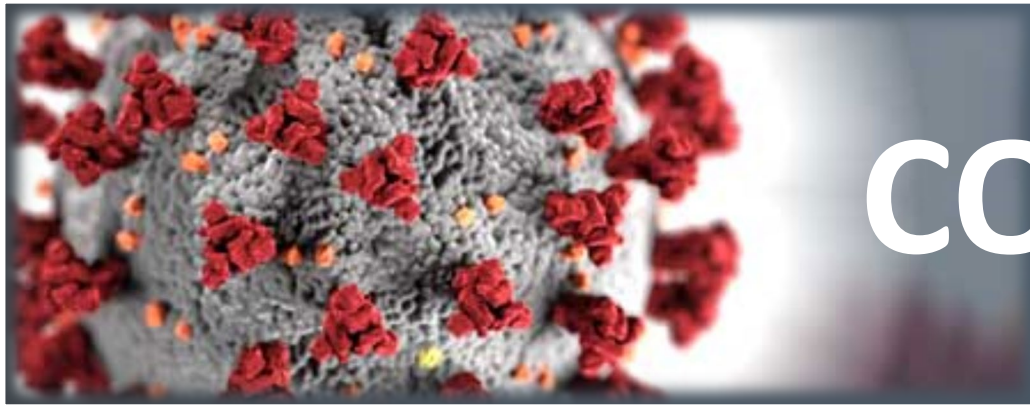
TEXAS
Health and Human Services

Texas Department of State Health Services



COVID-19 Update

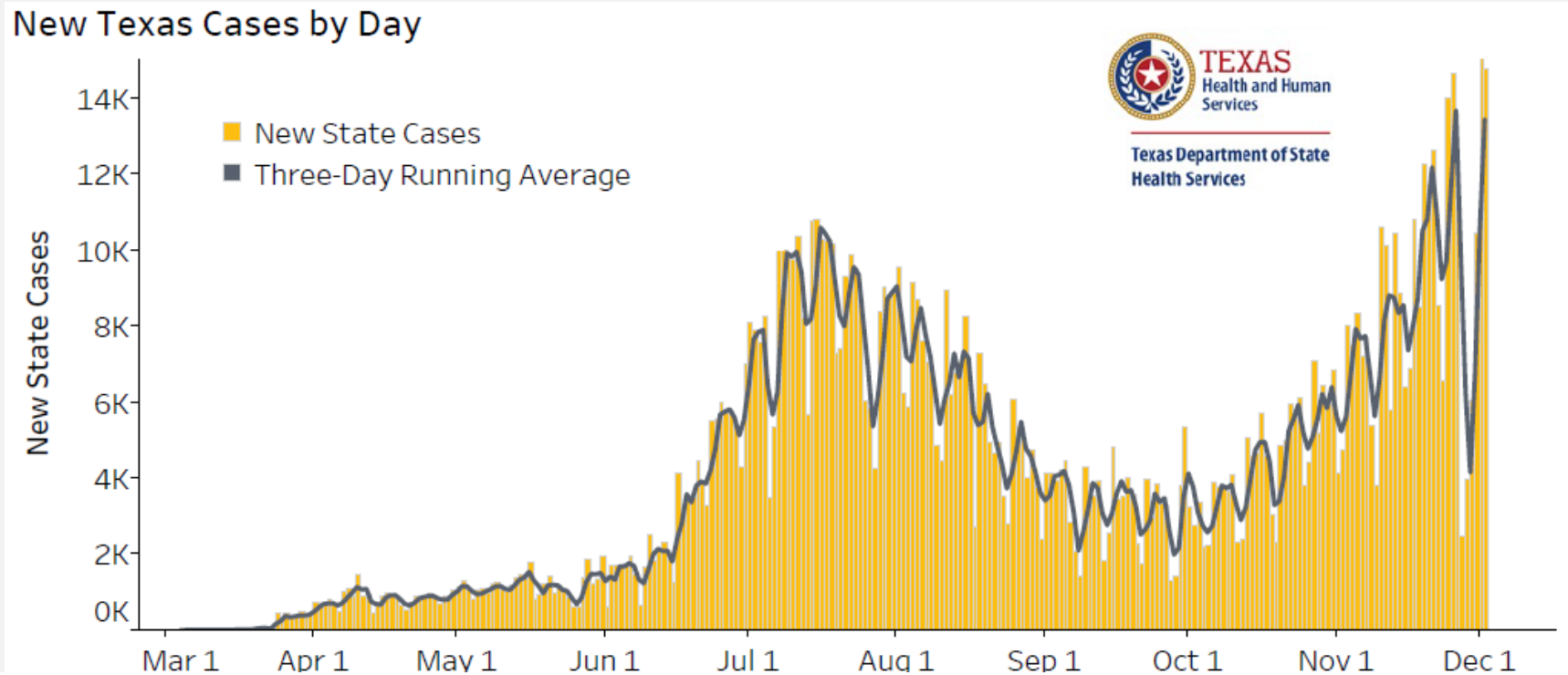
December 7, 2020

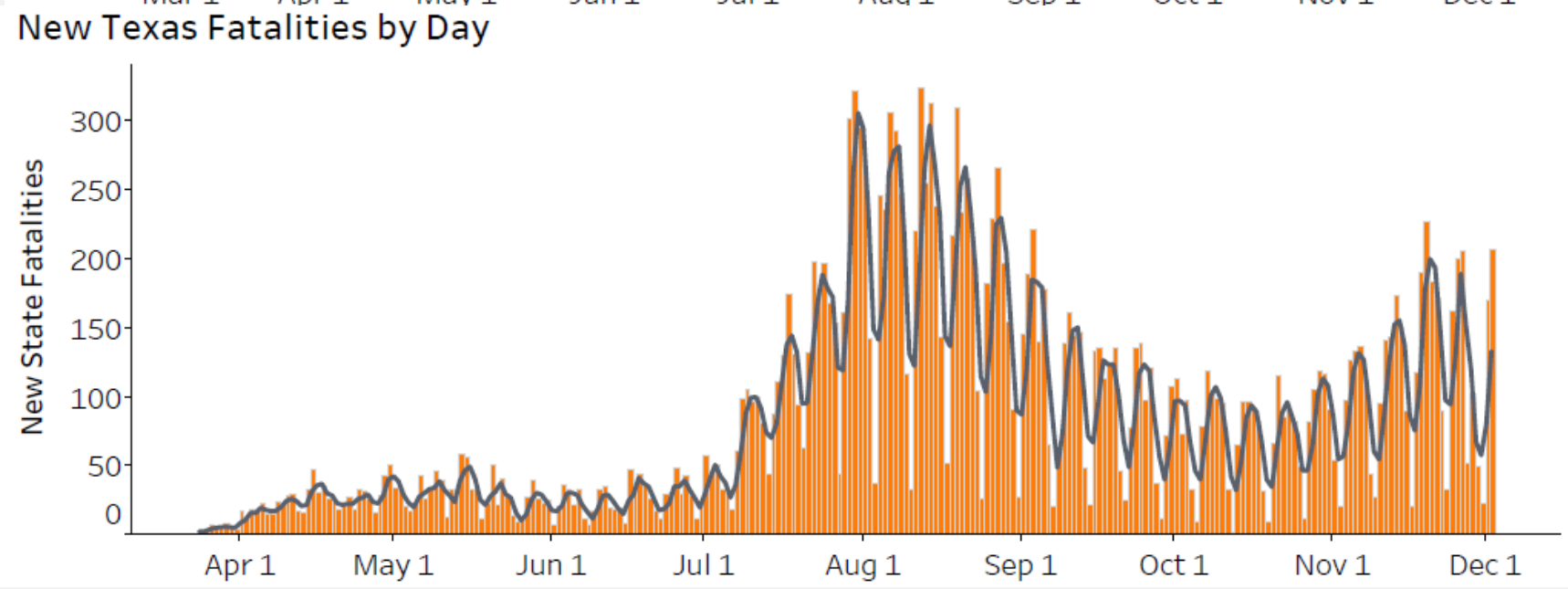
John W. Hellerstedt, MD, Commissioner

Texas Department of State Health Services

Texas COVID-19 Timeline

- **January 23**: DSHS launched the dshs.texas.gov/coronavirus/ website and prepared #TexasDSHS social media campaigns
- **January 31**: DSHS activated the State Medical Operations Center (SMOC)
- **March 4**: DSHS announced the first positive test result for COVID-19 in Texas
- **March 13**: Governor Greg Abbott declared a State of Disaster for all Texas counties and began issuing Executive Orders and Waivers to mitigate the crisis
- **March 17**: DSHS announced the first death of a person with lab-confirmed COVID-19
- **March 19**: DSHS Commissioner Hellerstedt declared a Public Health Disaster for Texas
- **December 3**: **1,215,113** confirmed COVID-19 cases reported in all 254 Texas counties with **22,000** fatalities

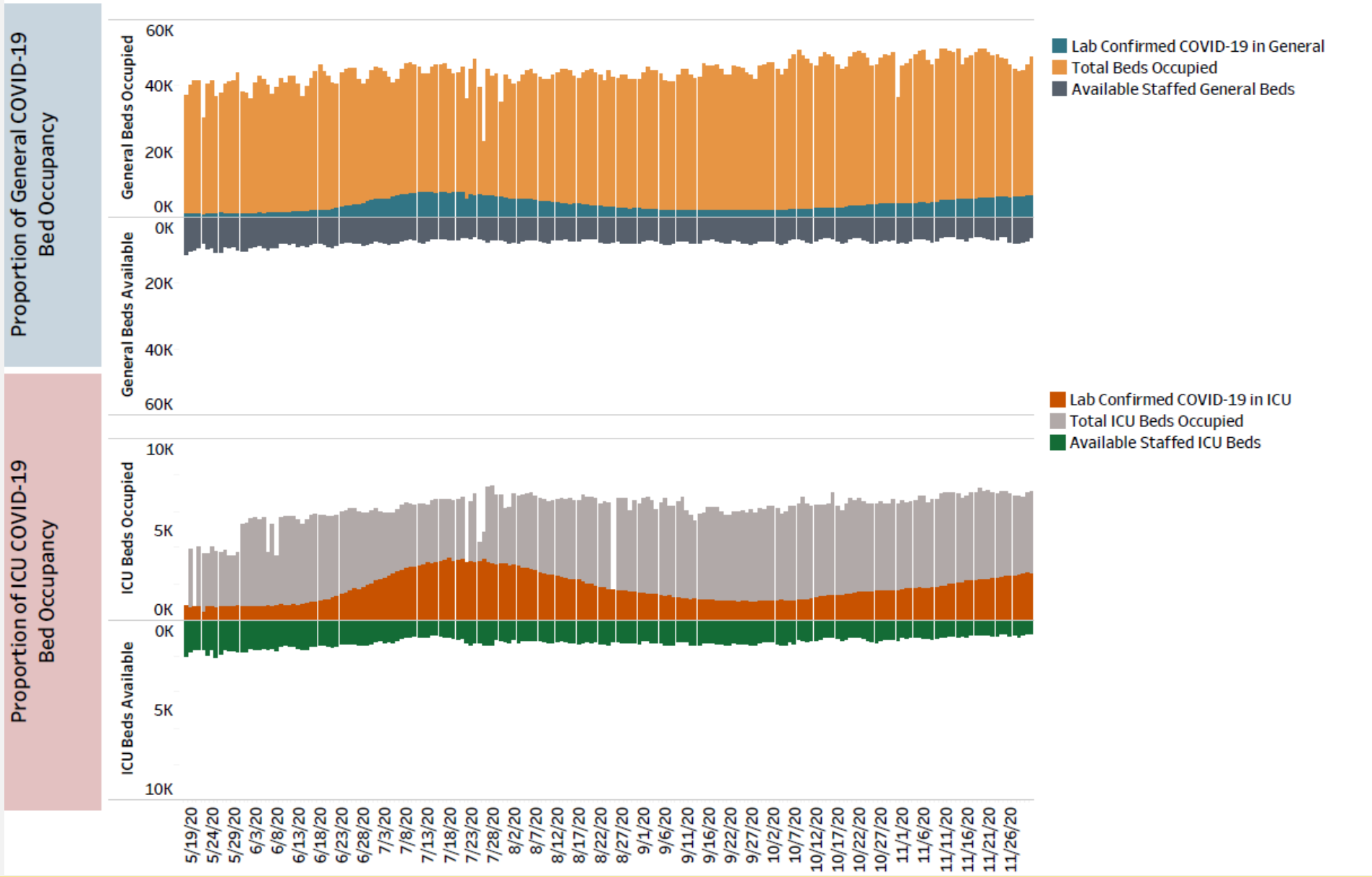




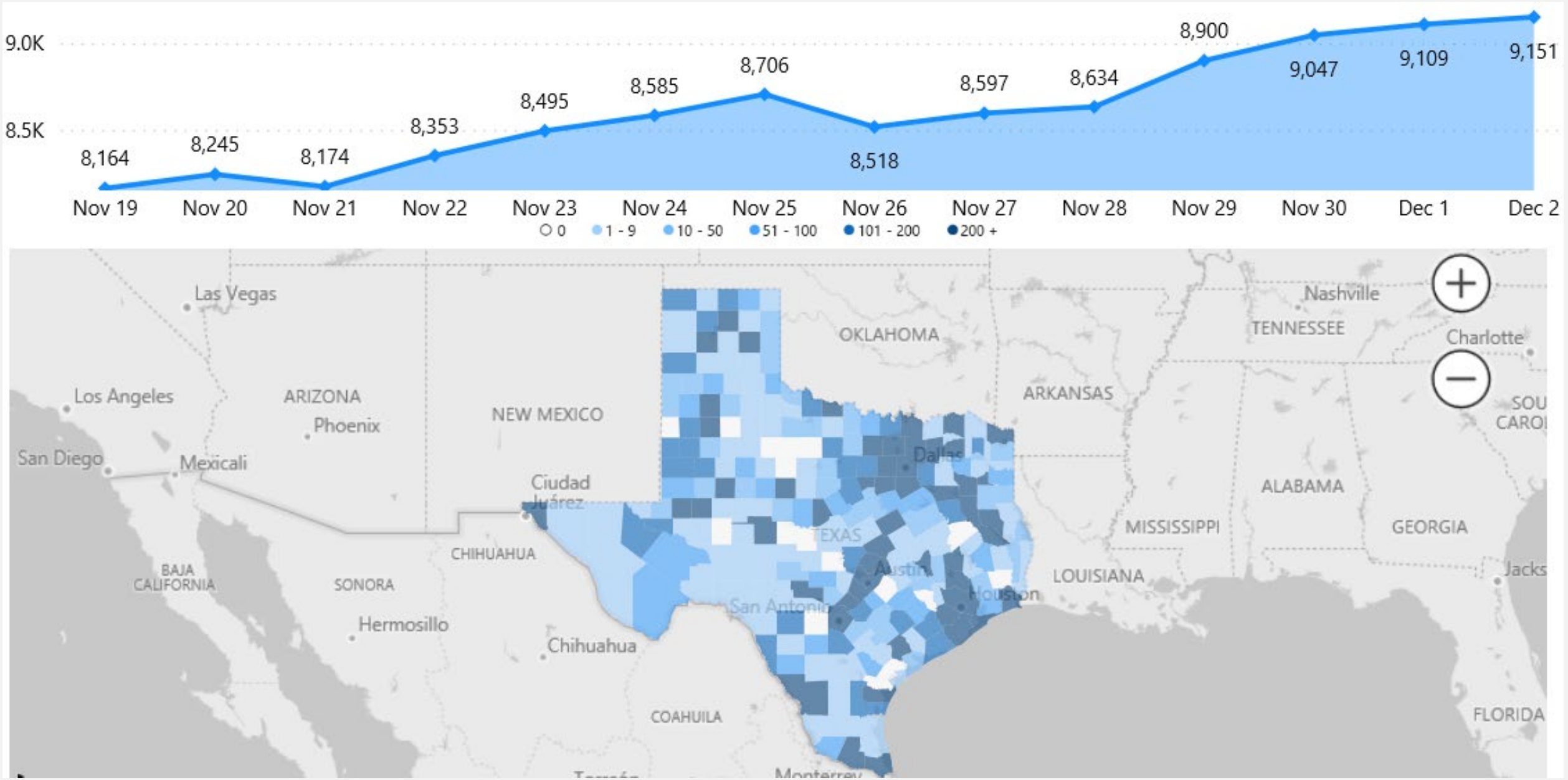
Preliminary data current as of 1pm, 12/2/2020

Note: as of July 27, DSHS is reporting COVID-19 fatality data based on death certificates. The metric used in these charts reports total newly reported fatalities (as opposed to the data of death).

Hospitalizations Over Time as of 12/1/2020:
Total Texas Lab-Confirmed COVID-19 Occupancy of General & ICU Beds out of Total Beds



12/1/2020 Totals	
COVID-19 General	6,508
COVID-19 ICU	2,544
Gen + ICU	9,052


9.0K
8.5K
8,164
8,245
8,174
8,353
8,495
8,585
8,706
8,518
8,597
8,634
8,900
9,047
9,109
9,151
Nov 19
Nov 20
Nov 21
Nov 22
Nov 23
Nov 24
Nov 25
Nov 26
Nov 27
Nov 28
Nov 29
Nov 30
Dec 1
Dec 2
0
1 - 9
10 - 50
51 - 100
101 - 200
200 +
Las Vegas
Los Angeles
ARIZONA
Phoenix
San Diego
Mexicali
NEW MEXICO
Ciudad Juárez
CHIHUAHUA
BAJA CALIFORNIA
SONORA
Hermosillo
Chihuahua
COAHUILA
OKLAHOMA
ARKANSAS
TEXAS
Dallas
Austin
San Antonio
Houston
LOUISIANA
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
TENNESSEE
Nashville
Charlotte

Estimated COVID-19 Pandemic Expenditures

Category	Amount Obligated
Medical Surge Staffing	$1.7 Billion
Local Response	$113.4 Million
Disease Surveillance	$77.8 Million
Local Contracts	$71.1 Million
Lab Costs	$30.6 Million
Repatriation	$5.4 Million
Other Costs	$0.5 Million
Total	**$1.97 Billion**

DSHS Outputs

As of December 3, 2020

- Health system support
  - 2,447 State of Texas Assistance Requests (STARs) filled
  - 10,016 Staff assigned to support hospitals
  - 717 Alternate care beds secured
  - 850+ Oxygen concentrators distributed
  - 980+ Ventilators distributed
- Call Center
  - 29,410 calls and 26,727 emails received
- Contact Tracing
  - 3,108 State and local contact tracers active
  - 51 Local health entities voluntarily participating in Texas Health Trace

TEXAS
Health and Human Services

Texas Department of State Health Services

COVID-19: Vaccine Distribution

December 7, 2020

Imelda Garcia – Associate Commissioner

Evolving Landscape for COVID-19 Vaccine

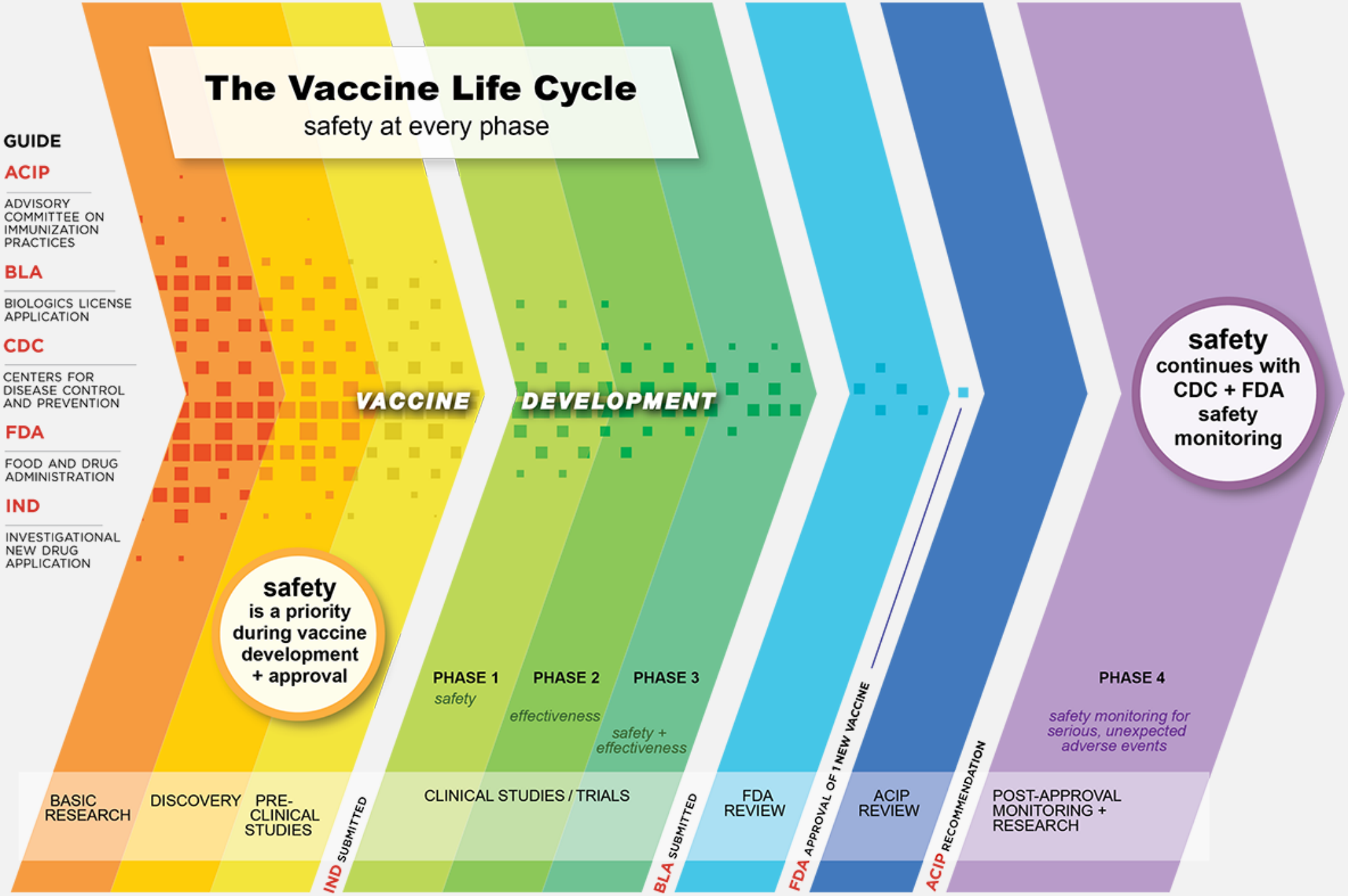
Key Assumptions for COVID-19 Vaccine Availability

Limited doses may be available by December 2020, but **supply will increase substantially in 2021**

Initial supply will either be **approved as a licensed vaccine** or **authorized under an EUA** issued by the FDA

Cold chain storage and handling requirements are likely to vary from **refrigerated** to **ultra-cold frozen**

Two doses from same manufacturer, separated by 21 or 28 days, will be **needed for immunity** for most COVID-19 vaccines


The Vaccine Life Cycle
safety at every phase
GUIDE
ACIP
ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES
BLA
BIOLOGICS LICENSE APPLICATION
CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION
FDA
FOOD AND DRUG ADMINISTRATION
IND
INVESTIGATIONAL NEW DRUG APPLICATION
VACCINE DEVELOPMENT
safety is a priority during vaccine development + approval
PHASE 1
safety
PHASE 2
effectiveness
PHASE 3
safety + effectiveness
PHASE 4
safety monitoring for serious, unexpected adverse events
safety continues with CDC + FDA safety monitoring
BASIC RESEARCH
DISCOVERY
PRE-CLINICAL STUDIES
IND SUBMITTED
CLINICAL STUDIES / TRIALS
BLA SUBMITTED
FDA REVIEW
FDA APPROVAL OF 1 NEW VACCINE
ACIP REVIEW
ACIP RECOMMENDATION
POST-APPROVAL MONITORING + RESEARCH

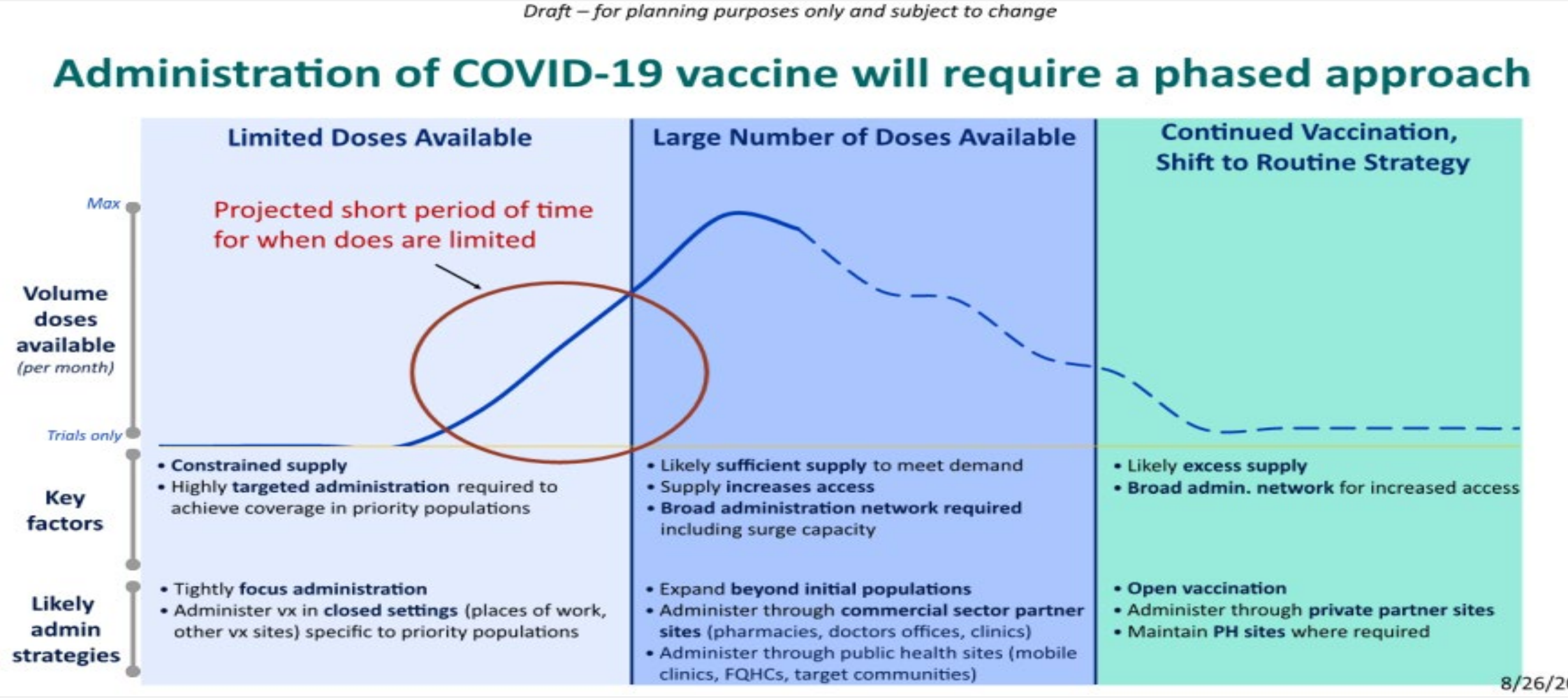
Operation Warp Speed

Manufacturer	Platform	Dose	Timing	Storage/Handling
Pfizer/BioNTech[2]	mRNA	2	0, 22 days	**Ultra Cold** Frozen 5 days (120 hours) hours refrigerated
Moderna[2]	mRNA	2	0, 28 days	Frozen 30 days refrigerated
Oxford/AstraZeneca[1]	Non-replicating Viral Vector	2	4 weeks apart	Refrigerated 6 months
Janssen/Johnson & Johnson[1]	Non-replicating Viral Vector	1	N/A	Frozen 6 months
Novavax	Recombinant Protein Subunit	2	0, 21 days	Refrigerated
Sanofi/GSK	Recombinant Protein Subunit	2	0, 21 days	Refrigerated

1. Phase 3 2. Emergency Use Authorization (EUA) application filed

New Phases and Timeframe of COVID-19 Vaccine Distribution

Draft – for planning purposes only and subject to change



CDC Critical Populations for COVID-19

Category	Includes
Essential workers	• Healthcare personnel (i.e. hospital staff, EMS, vaccinators, pharmacy and long-term care staff) • Other essential workers (i.e. first responders, education, others with critical roles who cannot easily socially distance)
People at increased risk for severe COVID-19 illness	• People 65 years of age and older • LTCF residents (i.e., nursing home, assisted living, others) • People with underlying medical conditions that are risk factors for severe COVID-19 illness
People at increased risk of acquiring or transmitting COVID-19	• People from racial and ethnic minority groups • People from tribal communities • People who are incarcerated/detained in correctional facilities • People experiencing homelessness/living in shelters • People attending colleges/universities • People living in other congregate settings
People with limited access to routine vaccination services	• People living in rural communities • People with disabilities • People who are under- or un-insured

Groups and individuals may fall into multiple categories. Prioritization recommendations among and within groups are in development.

Recommendations for prioritization of these populations for early vaccination are still in development.

Phased Approach to Vaccination

- ***Phase 0 (October 2020- November 2020):***
  - Provider recruitment and registration into ImmTrac2 and new web-based portal.
- ***Phase 1 (December 2020): Limited supply of COVID-19 vaccine doses available.***
  - McKesson will direct ship vaccines to registered providers serving healthcare workers and other select populations based upon the DSHS Commissioner's approval in accordance with CDC and ACIP recommendations.
  - Occupational healthcare settings, existing vaccinators serving closed settings will be the primary administrators of vaccines.
  - Some large chains enrolled directly by CDC to serve some targeted populations (long-term care facilities).
  - Continue ongoing provider recruitment and registration to ensure access to vaccination.

(All Dates Subject to Change)

Phased Approach to Vaccination

- ***Phase 2 (January 2021-July 2021): Increased number of vaccine doses available.***
  - Emphasis on ensuring access to vaccine for members of Phase 1 critical populations who were not yet vaccinated as well as for the additional populations; expand provider network.
  - Texas will use specialized vaccine teams, as needed, to vaccinate identified critical groups lacking access to the vaccine (e.g., Long-term care facilities, rural communities, etc.).
- ***Phase 3 (July 2021 -October 2021): Sufficient supply of vaccine dose for entire population***.
  - DSHS will focus on ensuring equitable vaccination access across the entire population. Monitor vaccine uptake and coverage; reassess strategy to increase uptake in populations or communities with low coverage.
  - May consider extending the use of vaccine teams depending on the uptake and coverage received so far, especially to ensure second doses are administered from the end of Phase 2.
- **Phase 4 (October 2021 and forward) Sufficient supply of vaccine with a decreased need due to most of the population being vaccinated previously**.
  - May include boosters or annual vaccines if required.
  - Vaccine availability open throughout private providers. Population able to visit provider of choice.

(All Dates Subject to Change)

Prioritization and Public Input

Expert Vaccine Allocation Panel

- Made of external and internal subject matter experts
- Make recommendations to the Commissioner
  - Establish prioritization of critical populations for Phase 1 and Phase 2 distribution
  - Weekly review of the data to guide allocation recommendations

Public hearing (October 19th)

Received public comment at a formal meeting of the Infectious Disease Task Force on

- Proposed critical populations and
- Guiding principles allocation/distribution

Provider Registration Portal

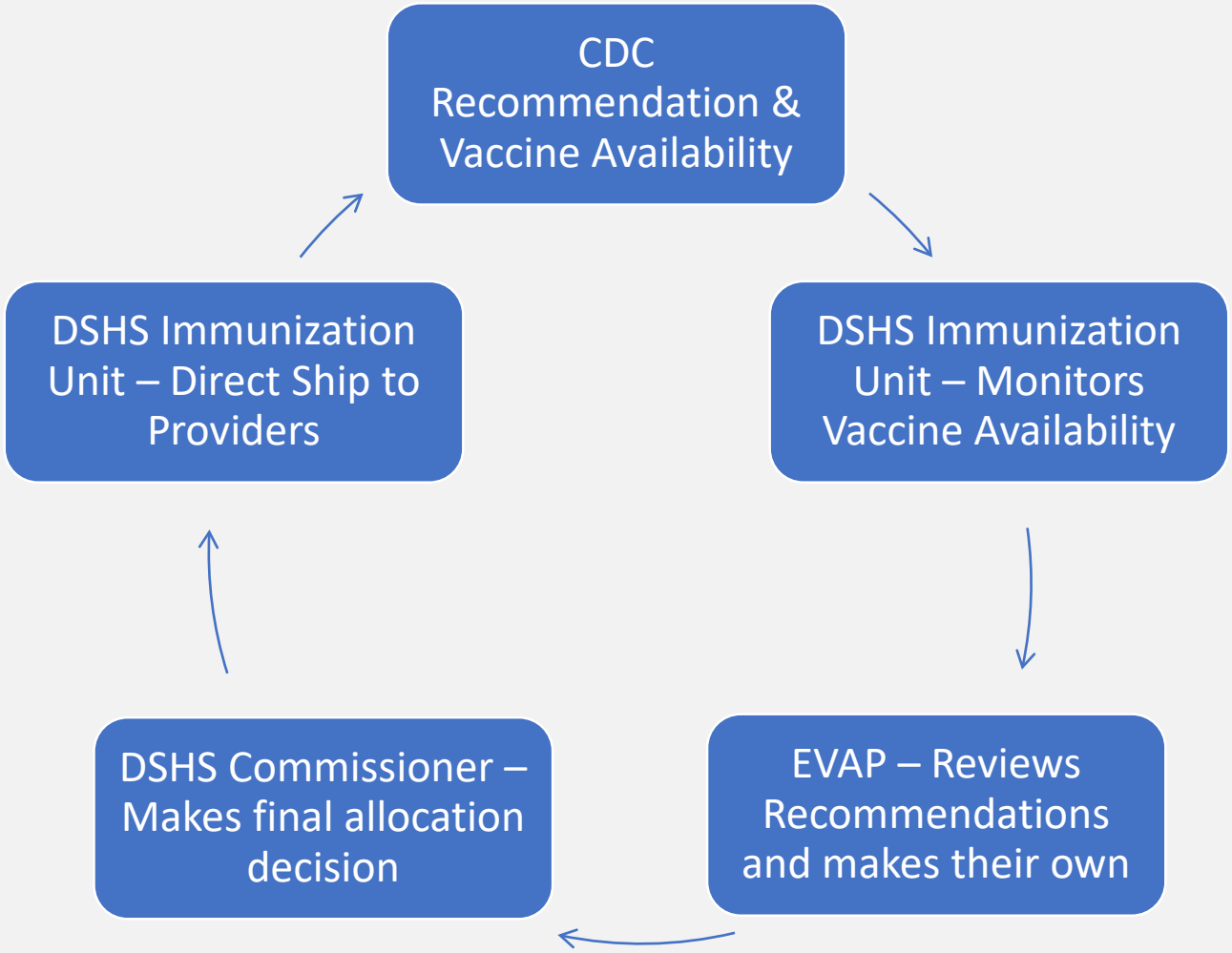
Vaccine Data Collection

- **Provider Registration**
  - **VAOS** – for registering provider information, including numbers typically served and storage capabilities, agreement for following guidelines for administration and reporting.
  - **ImmTrac 2** – required for administering vaccines and therapeutics during a declared disaster. Data kept for 5 years following end of disaster unless patient elects to keep in system. Health and Safety Code §161.00705.
- **Data Collection for Allocation**
  - Using of case and hospital information, workforce, facility, demographic, and other information
- **Allocation Tools**
  - Applying EVAP principles, vaccine distribution requirements, provider capabilities, and priority populations and related vulnerabilities
- **Reporting Adverse Events**
  - Several existing and new state and federal reporting systems to ensure follow up should adverse reactions occur

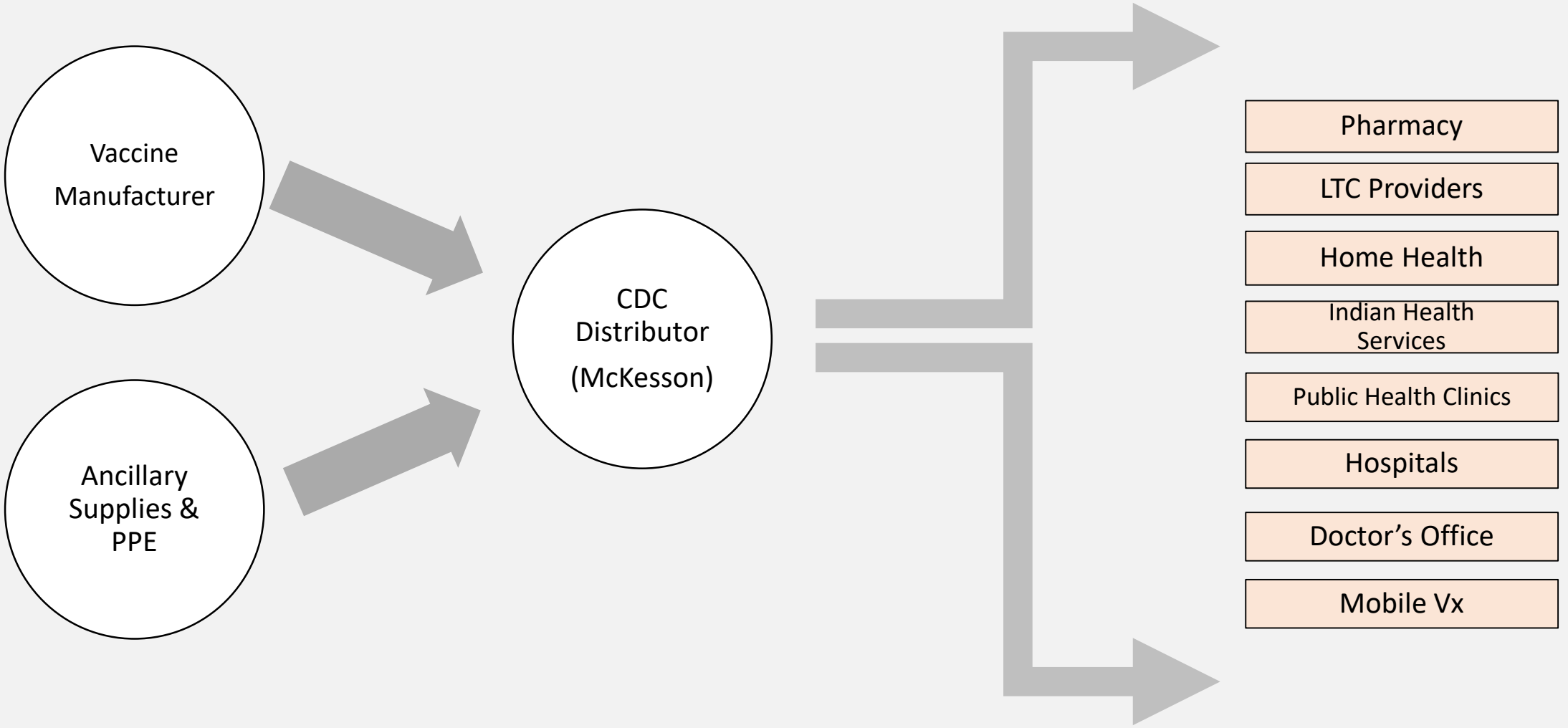
Federal Reporting Requirements

- **CDC Requirements**
  - Dose level accountability, connecting the Lot ID to the patient
  - Providers must report dose usage within 24 hours
- **Texas DSHS reporting from providers**
  - Doses Allocated by County
  - Doses Shipped by County
  - Doses Administered by County
  - Doses Wasted by County

Allocation Process



Supply Chain/Distribution Methodology



Foundational principles for allocation

Ethical Principles

- **Maximum benefit** encompasses the obligation to protect and promote the public's health and socioeconomic well-being in the short and long term.
- **Equal concern** requires that every person be considered and treated as having equal dignity, worth, and value.
- **Mitigation of health inequities** includes the obligation to explicitly address the higher burden of COVID-19 experienced by the populations affected most heavily, given their exposure and health inequities.

Procedural Principles

- **Fairness** requires engagement with the public, particularly those most affected by the pandemic, and impartial decision-making about and evenhanded application of allocation criteria.
- **Transparency** includes the obligation to communicate with the public openly, clearly, accurately, and straightforwardly about the allocation framework as it is being developed, deployed, and modified.
- **Evidence-based** expresses the requirement to base the allocation framework on the best available and constantly updated scientific information and data.

(National Academy of Medicine, 2020)

EVAP Guiding Principles

Texas will allocate COVID-19 vaccines that are limited in supply based on:

- **Protecting health care workers** who fill a critical role in caring for and preserving the lives of COVID-19 patients and maintaining the health care infrastructure for all who need it.
- **Protecting front-line workers** who are at greater risk of contracting COVID-19 due to the nature of their work providing critical services and preserving the economy.
- **Protecting vulnerable populations** who are at greater risk of severe disease and death if they contract COVID-19.
- **Mitigating health inequities** due to factors such as demographics, poverty, insurance status and geography.
- **Data-driven allocations** using the best available scientific evidence and epidemiology at the time, allowing for flexibility for local conditions.
- **Geographic diversity** through a balanced approach that considers access in urban and rural communities and in affected ZIP codes.
- **Transparency** through sharing allocations with the public and seeking public feedback.

Phase 1A Populations Identified

- Protecting health care workers is essential to keeping the health care system intact and able to care for COVID-19 and other patients, so phase 1A of vaccine distribution, when the vaccine supply is most limited, will focus on making vaccine available to health care workers.
- To support this distribution, the EVAP has recommended, and the Commissioner of Health has approved, a tiered definition of health care workers specific to Phase 1A.
- During this phase, the EVAP will make recommendations based on the priority order in the Health Care Workers definition.

Phase 1A Populations Identified

Health Care Worker Definition – First Tier:

1. Hospital staff working directly with patients who are positive or at high risk for COVID-19. Includes:
   a. Physicians, nurses, respiratory therapists and other support staff (custodial staff, etc.)
   b. Additional clinical staff providing supporting laboratory, pharmacy, diagnostic and/or rehabilitation services
2. Long-term care staff working directly with vulnerable residents. Includes:
   a. a. Direct care providers at nursing homes, assisted living facilities, and state supported living centers
   b. b. Physicians, nurses, personal care assistants, custodial, food service staff
3. EMS providers who engage in 9-1-1 emergency services like pre-hospital care and transport
4. Home health care workers, including hospice care, who directly interface with vulnerable and high-risk patients

Phase 1A Populations Identified

Health Care Worker Definition – Second Tier:

1. Staff in outpatient care offices who interact with symptomatic patients. Includes: a. Physicians, nurses, and other support staff (custodial staff, etc.)
   a. Clinical staff providing diagnostic, laboratory, and/or rehabilitation services
   b. Non 9-1-1 transport for routine care
2. Direct care staff in freestanding emergency medical care facilities and urgent care clinics
3. Community pharmacy staff who may provide direct services to clients, including vaccination or testing for individuals who may have COVID
4. Public health and emergency response staff directly involved in administration of COVID testing and vaccinations
5. Last responders who provide mortuary or death services to decedents with COVID-19. Includes:
   a. Embalmers and funeral home workers who have direct contact with decedents
   b. Medical examiners and other medical certifiers who have direct contact with decedents
6. School nurses who provide health care to students and teachers

Estimated Number of Adults by Population and Public Health Region (PHR)

Region	Healthcare Workers 1A-Tier 1[a]	Healthcare Workers 1A-Tier 2[b]	Long-term Care (LTC) Residents	Adults 65+	High-Risk Medical Condition[c]
1	28,534	21,799	10,886	134,264	290,135
2/3	233,358	242,982	76,808	1,103,089	2,671,602
4/5N	54,671	33,909	22,459	295,987	592,868
6/5S	212,247	187,172	48,385	949,259	2,476,882
7	83,358	83,770	31,175	462,672	1,067,255
8	94,101	75,470	31,023	450,704	1,058,860
9/10	42,822	31,265	14,301	211,456	513,205
11	103,956	51,707	35,316	304,597	828,231
Total	853,047	728,074	270,353	3,912,028	9,499,038

[a] Includes personnel in hospital settings, long-term care, home health and EMS as defined in Phase 1A – Tier 1

[b] Includes all other healthcare workers as defined in Phase 1A – Tier 2

[c] People with at least one of these conditions: Heart disease, asthma, COPD, bronchitis, emphysema, chronic kidney disease, diabetes, obesity (BMI>30)

Communication, Outreach, Engagement (COE) Plan

- **Provider**
  - Recruitment
  - Vaccine Administration logistics/guidance
- **Public**
  - Statewide media campaign (TV, radio, digital, out-of-home)
  - General information
  - Vaccine availability, safety, importance
  - Dashboard for understanding provider and allocation availability
- **Stakeholders**
  - Outreach to providers and public
  - Customized dashboards and secure communications to public health partners to understand provider base and allocations in the regional/local area, and guide local planning efforts

COE Plan – Timeline

- **Phase 0 (Oct. 2020 – Nov. 2020)**
  - Presentations to stakeholders; mass emailing (GovDelivery); media briefings (Ex. provider portal);
- **Phase 1 (Nov. 2020 – Dec. 2020)**
  - Statewide media campaign's message: what to expect, why vaccine is important; continued provider outreach (targeted and aided by stakeholder mobilization)
- **Phase 2 (Jan. 2021 – July 2021)**
  - Statewide media campaign's message: vaccine safety, dose requirements and provider locations
- **Phase 3 (July 2021 – Oct. 2021)**
  - Statewide media campaign's message: Vaccine safety, dose reminder

(All Dates Subject to Change)

TEXAS
Health and Human Services

Texas Department of State Health Services

COVID-19 Public Health Data

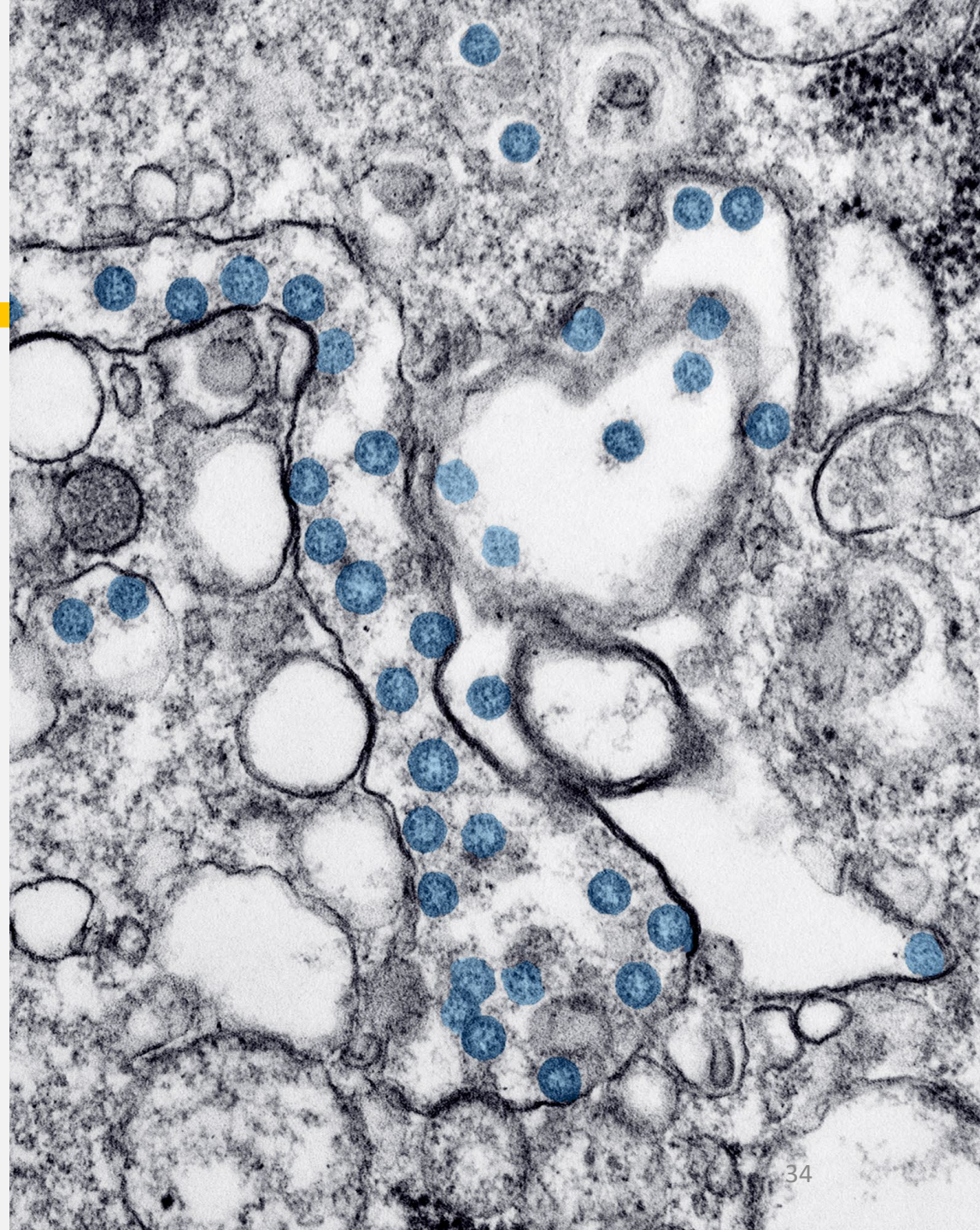
December 7, 2020

Imelda Garcia – Associate Commissioner

David Gruber – Associate Commissioner

Outline

- Response Overview and Key Takeaways
- Flow of Data
- Testing
- Public Health Follow Up
- Hospitalizations
- Mortality
- Future State of Data



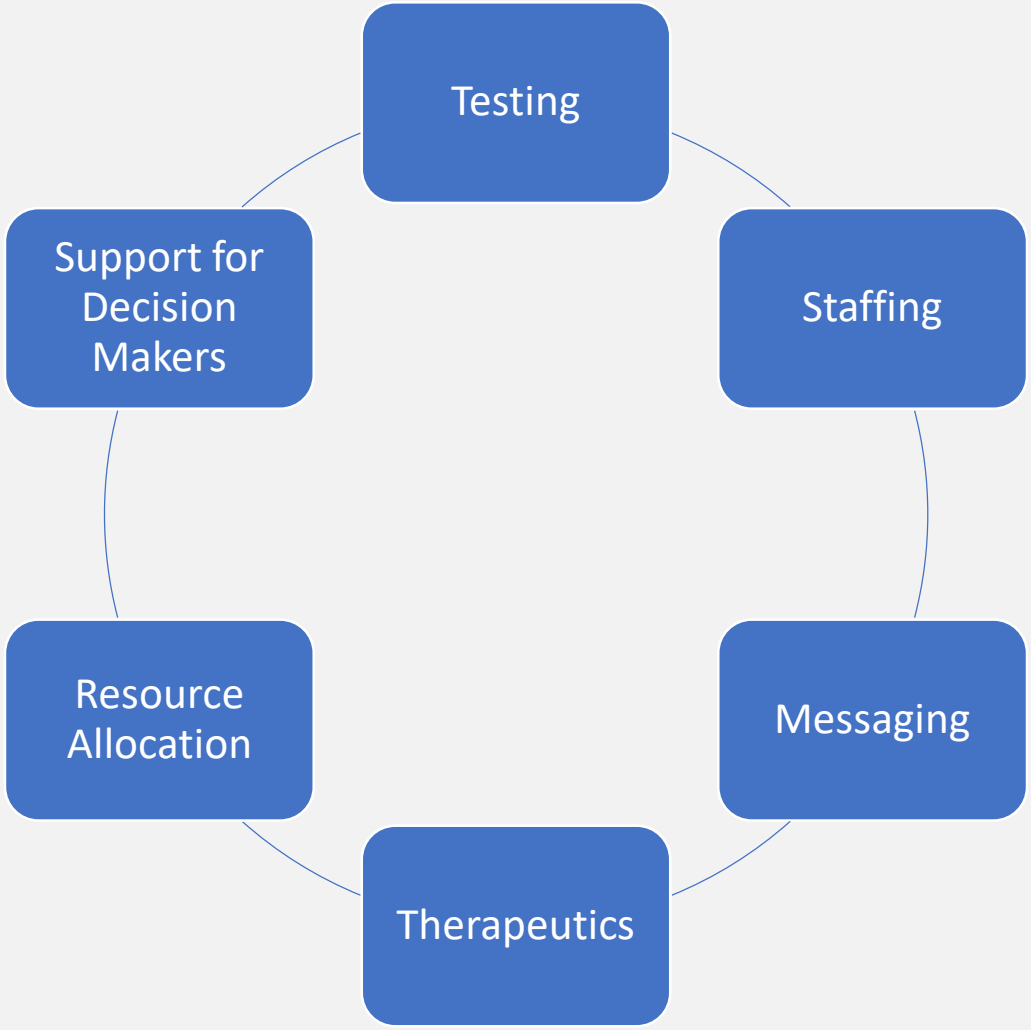
TEXAS Health and Human Services

Texas Department of State Health Services

Response Overview

- Rapidly modernized the National Electronic Disease Surveillance System (NEDSS) ecosystem
  - Increasing daily lab result ingestion by 9,990% (from 2,000 to 200,000 per day)
- Processed 89,040 hospitalizations data points from Texas healthcare facilities on daily basis
  - Over 13 million COVID-19 data points collected from hospitals to date
- Developed a functioning statewide public health follow up system in less than three weeks
  - Mature system within five months with significant participation by local health jurisdictions
  - Grew DSHS-supported public health follow up staff from 115 to 2,400
- Supported responses to 600 facility outbreaks
- DSHS given “A” grade from The COVID Tracking Project for data transparency
  - Based on consistent, reliable, and complete reporting including patient outcomes and demographics

Response Overview: Use of Data



TEXAS Health and Human Services

Texas Department of State Health Services

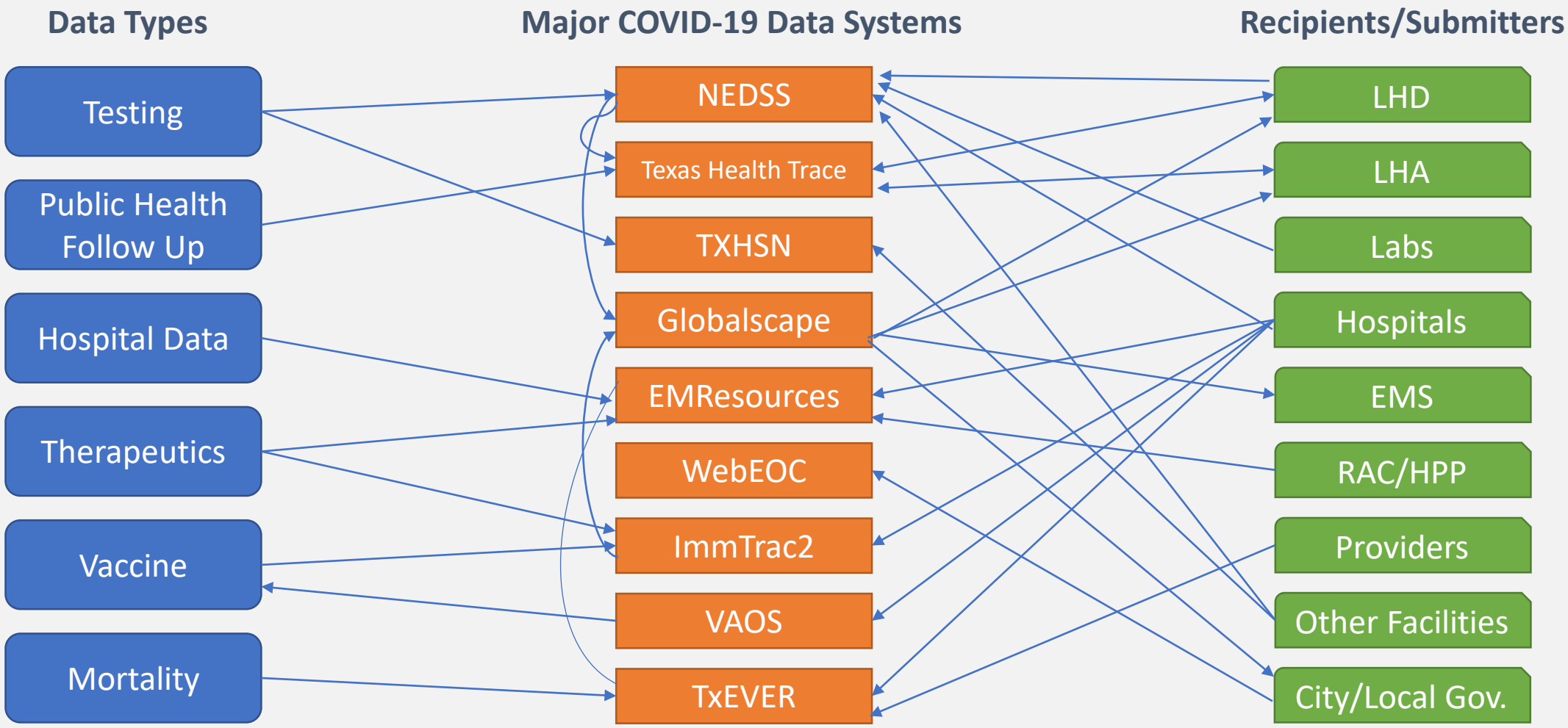
Key Takeaways

- The value of *trends* – collective analysis of many data points over time, not one single data point on one single day.
- The importance of *standardization* where possible – all levels of public health reporting the same data type in the same way.
- The ability to *move quickly* – and communicate with *transparency*.
- The necessity to use *data to drive decision-making.*

Flow of Data

Data Types	Major COVID-19 Data Systems	Recipients/Submitters
Testing	NEDSS	LHD
Public Health Follow Up	Texas Health Trace	LHA
Hospital Data	TXHSN	Labs
Therapeutics	Globalscape	Hospitals
Vaccine	EMResources	EMS
Mortality	WebEOC	RAC/HPP
	ImmTrac2	Providers
	VAOS	Other Facilities
	TxEVER	City/Local Gov.

Flow of Data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WebEOC
ImmTrac2
VAOS
TxEVER
LHD
LHA
Labs
Hospitals
EMS
RAC/HPP
Providers
Other Facilities
City/Local Gov.

Flow of Data: Pre-Vaccine

Testing

- Patient seeks out provider
- Provider orders lab – should attempt to collect req'd info
- Lab should transmit all positives, negatives, indeterminates w/ patient info to DSHS
- DSHS transmits test results to public health entities for notification/case investigation, and EMS

Public Health Follow Up

- Public Health contacts confirmed & probable cases
- Case may voluntarily provide info on activities prior to testing/diagnosis
- May result in following up with persons that may have been potentially exposed
- Other follow up – facility level public health support to prevent outbreaks

Hospitalizations & Therapeutics

- Hospitals and other required entities provide daily updates on hospitalizations, capacity, use of certain therapeutics
- Health care system Preparedness Providers (HPPs) transmit info to DSHS
- Facilities using therapeutics with FDA EUA register use in ImmTrac2

Mortality Reporting

- Medical Certifier conducts typical process for completing death certificate
- Public Health may also be informed via case investigation process
- Completed Death certificates transmitted to w/i 10 days of death
- DSHS reports out COVID-19 deaths reported on Part I of the death certificate

Testing

Testing: Before/During COVID-19

	Before COVID-19	During COVID-19
Testing Result Focus for Public Health Purposes	Positive Results	Positive, Negative, and Indeterminate Results
Reporting System Daily Capacity (all conditions)	2,000	200,000 (+9,990%)
# of Labs Submitting Data to DSHS, including Using Electronic Lab Reports	~70	~3,362 (+4,702%)

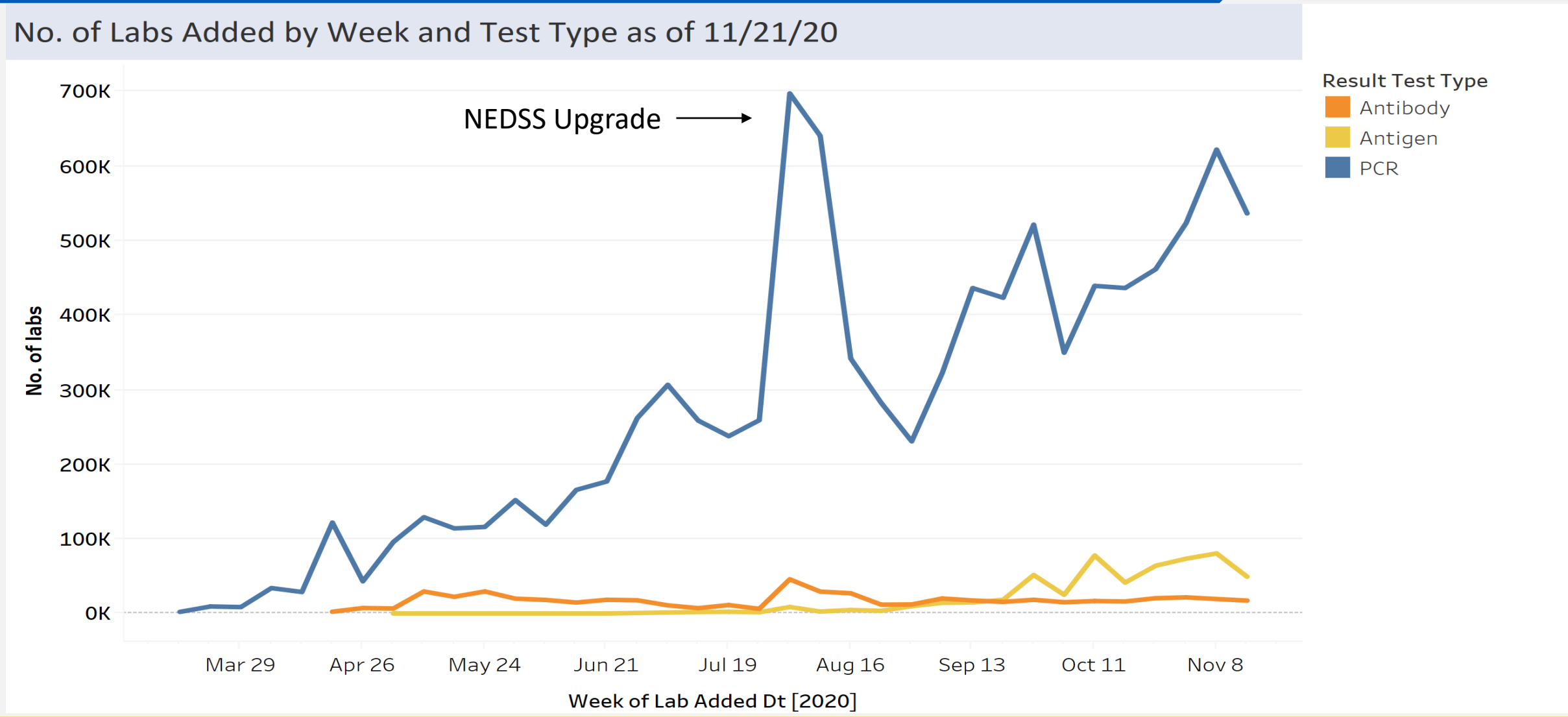
Testing: Systematic Changes

- **Efficiencies in Reporting Achieved**
  - Upgraded the National Electronic Disease Surveillance System (NEDSS)
  - Moved some paper reporters to electronic lab reporting
  - Created and improved processes for public health follow up activities handled at statewide, regional, and local levels
- **Improvements Identified and/or In Progress**
  - Continuing to increase in the number of labs reporting electronically
  - Decreasing the number of high volume testing laboratories faxing reports
  - Retaining qualified epidemiologists to support ongoing analysis

Testing: Upgrading NEDSS

- **The 86th Legislature invested in upgrades to this system – in progress prior to arrival of COVID-19**
  - Funding and initial work was important to leverage federal dollars capable of supporting the full-scale upgrades needed to support COVID-19 and other public health test result processing needs
- **Combined, state and federal dollars resulted in:**
  - $7.2 Million expended for IT Upgrades/Staffing to date
  - Successful migration to cloud server
  - Major system upgrade completed
  - 3rd Party obtained to assist with onboarding, registering, and testing lab feeds for successful ingestion of electronic lab reporting data in to NEDSS

Testing: Upgrading NEDSS



Testing: Upgrading NEDSS

Changes to Electronic Laboratory Reports (ELR) Submission and Onboarding in NEDSS		
	Pre-COVID	**During COVID**
File format	Only Health Level 7 International (HL7) standard file format	• PHID developed alternative comma separated value (CSV) file format for facilities unable to submit via HL7
System enhancements	--	• Coded, tested, mapped, and created new Rhapsody engine integration routes to validate CSV data • Ongoing edits and enhancements required to address issues
Validation	--	• New team of epidemiologists created to review ELRs failing validation
Training	As needed	• Extensive and laborious training of all labs was required • CSV is about to undergo its fourth change in version (19, 36, 48, and 56 columns now) dictated by CARES act
Time required to onboard	Several months to years	Time dependent on knowledge and previous experience of labs. Onboarding can be as quick as a few days for more experienced labs; longer for newer labs with fewer resources and less experience.
Lab facility types	Commercial labs, hospitals, public health labs (traditional labs)	Traditional labs but also the new addition of many non-traditional labs (facilities who never reported labs directly to the state) including
No. of lab facilities registered	70	3,362 (+4702%)

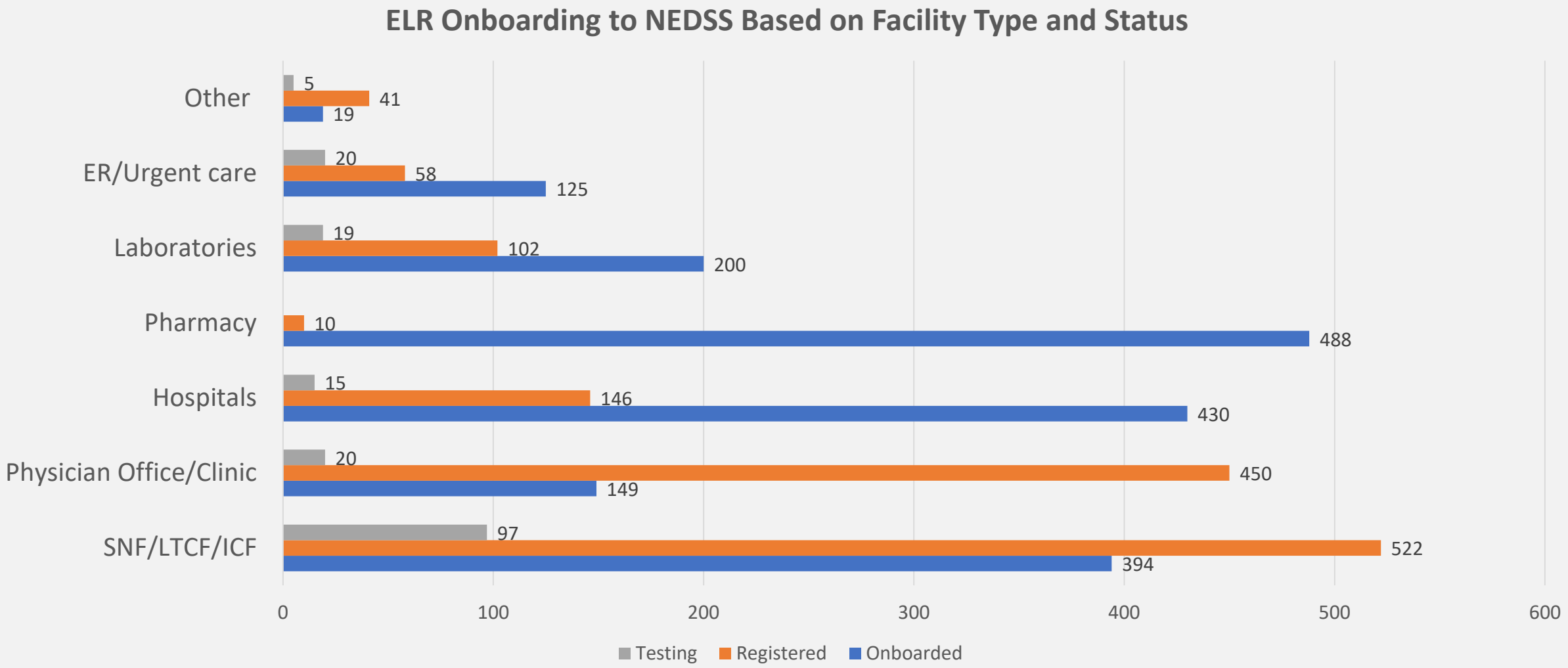
Testing: Upgrading NEDSS

Moving from Old to New Server/Software			
Process Area	**Oracle – Release 5.2.0.3 (OLD)**	**SQL Server - Release 5.4.6 (NEW)**	**Change/ Improvement**
ELR Importer Process	1,600 ELRs/Hour	7,000 ELRs/Hour	+438%
Dedupe Similar Process (Run Daily)	45 Minutes	6 Minutes	+750%
Monthly count comparison	Jan: 52,831 Feb: 140,424	Jul: 1,623,165 Aug: 2,847,843	+52.91%

Testing: Data Ingestion

- **As more labs attempt to onboard and successfully transmit data via ELR, lab facilities may bundle older ELRs to process in NEDSS.**
- **Onboarding labs with older data via ELR may result in significant infusion of case data at one time.**
- **Common issues encountered:**
  - Lack of IT support at labs to extract and properly format required data fields, map and code lab data as needed, and challenges in setting up a new lab data management system or lack of one
  - Newly established labs still getting set up
  - Inadequate staff to conduct required reporting activities
  - Lack of understanding of reporting rules
  - Inability to comply with required file formats and specifications for ELR processing
- **Once facility onboards:**
  - Submitted data assessed by DSHS and identifies older case data ingested
  - DSHS notifies regional and local public health re: approximate number of labs pending, date for processing, and jurisdictions impacted
  - DSHS manages inclusion of older data onto statewide dashboards with appropriate communication about older case data ingestion

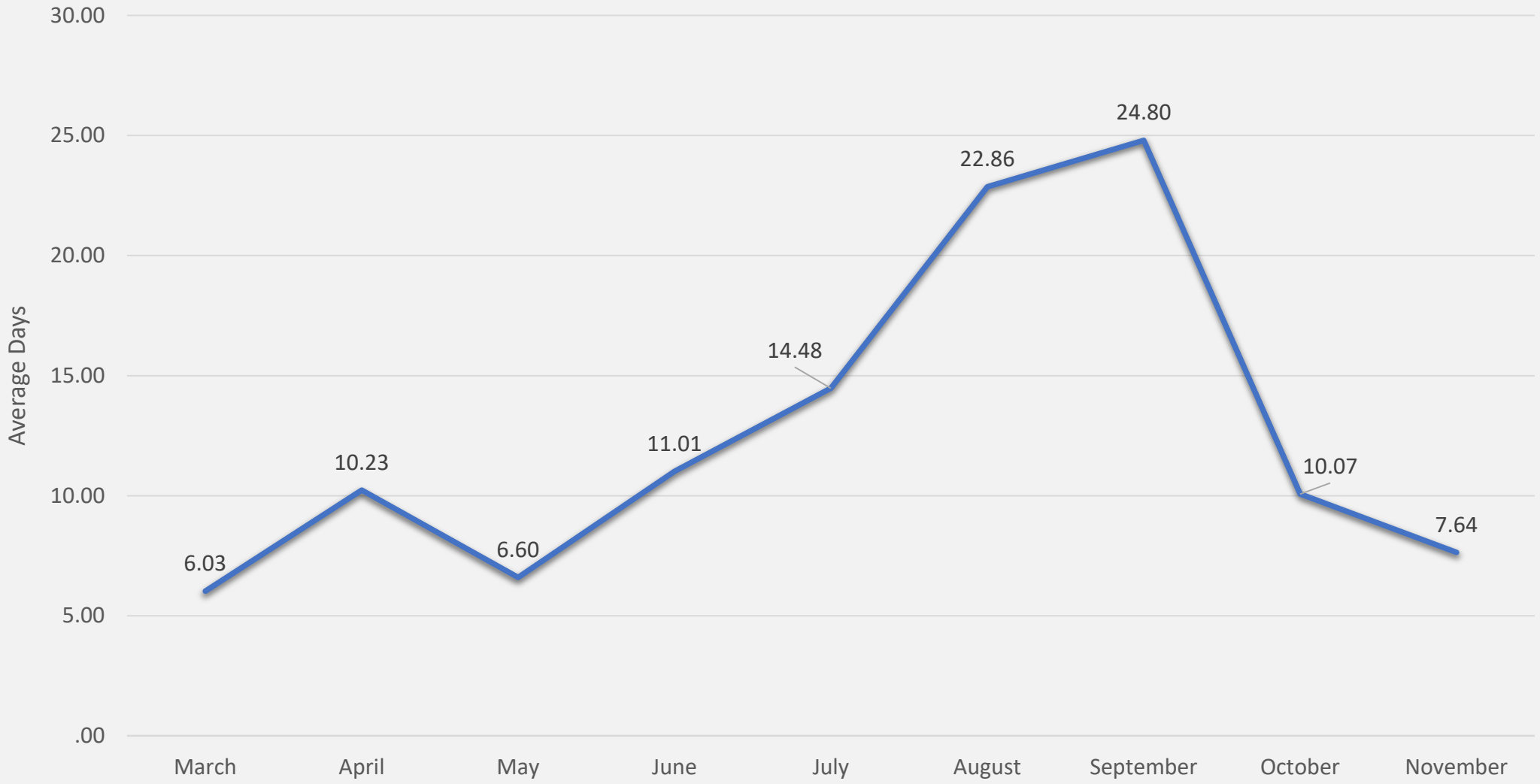
Testing: Current Onboarding Status



Testing: Timeliness and Quality

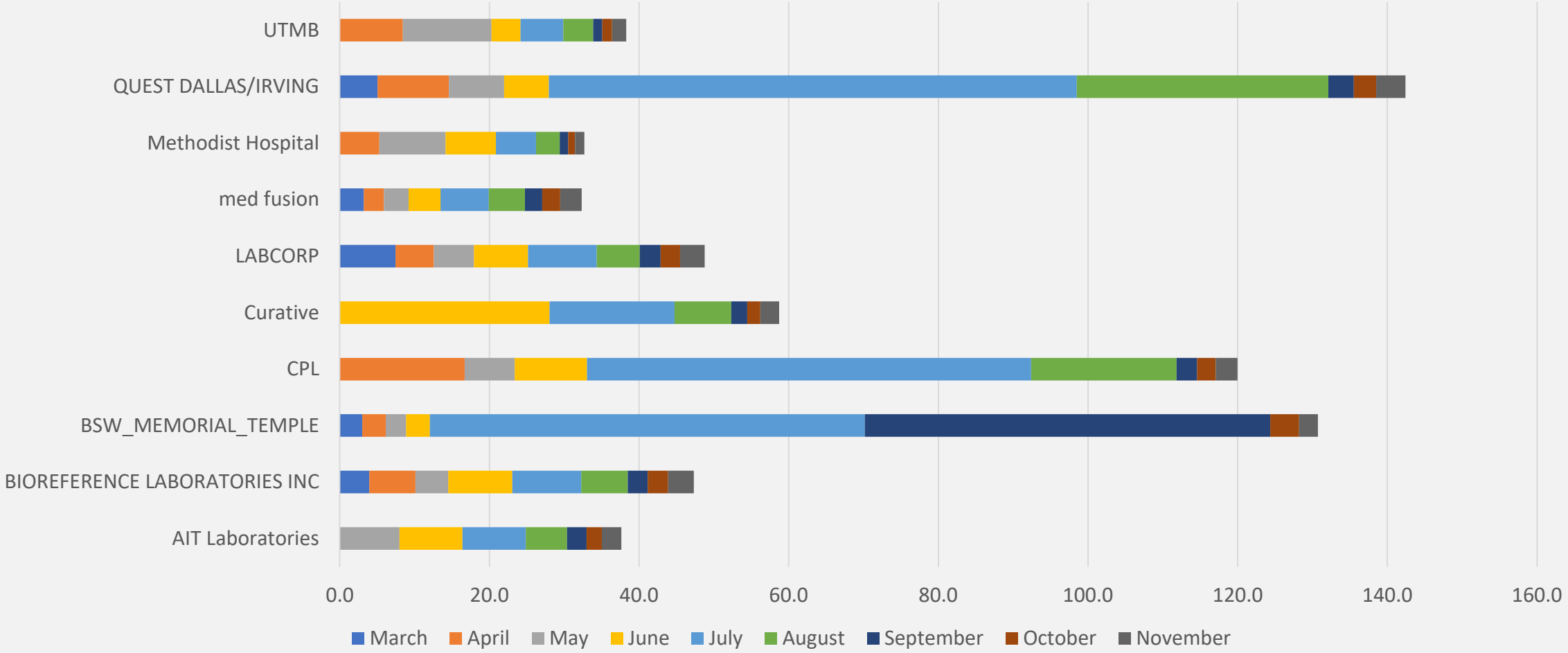
- **COVID-19 Public Health Reporting Requirement: 25 Texas Administrative Code, Section 97.3(a):**
  - **Required turnaround time:** immediate notification to public health
  - **Laboratory reporting – required elements:**
    - Patient name
    - Identification number
    - Address and telephone number
    - Age and date of birth
    - Sex, race and ethnicity
    - Specimen submitter name, address, and phone number
    - Specimen type
    - Date specimen collected
    - Disease test and test result
    - Normal test range
    - Date of test report and
    - Physician name and telephone number

Testing: Timeliness of Submission



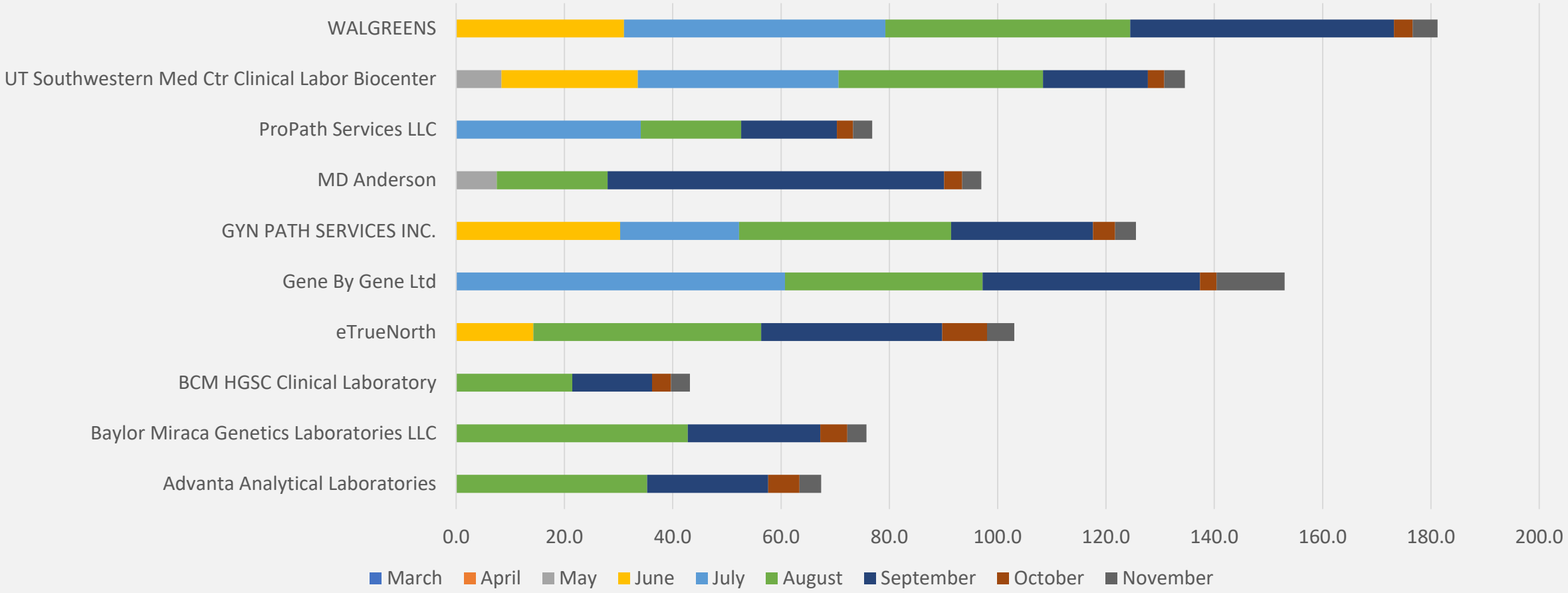
Testing: Timeliness of Submission

Top 10 HL7 ELR Submitters and Average Number of Days to Submit

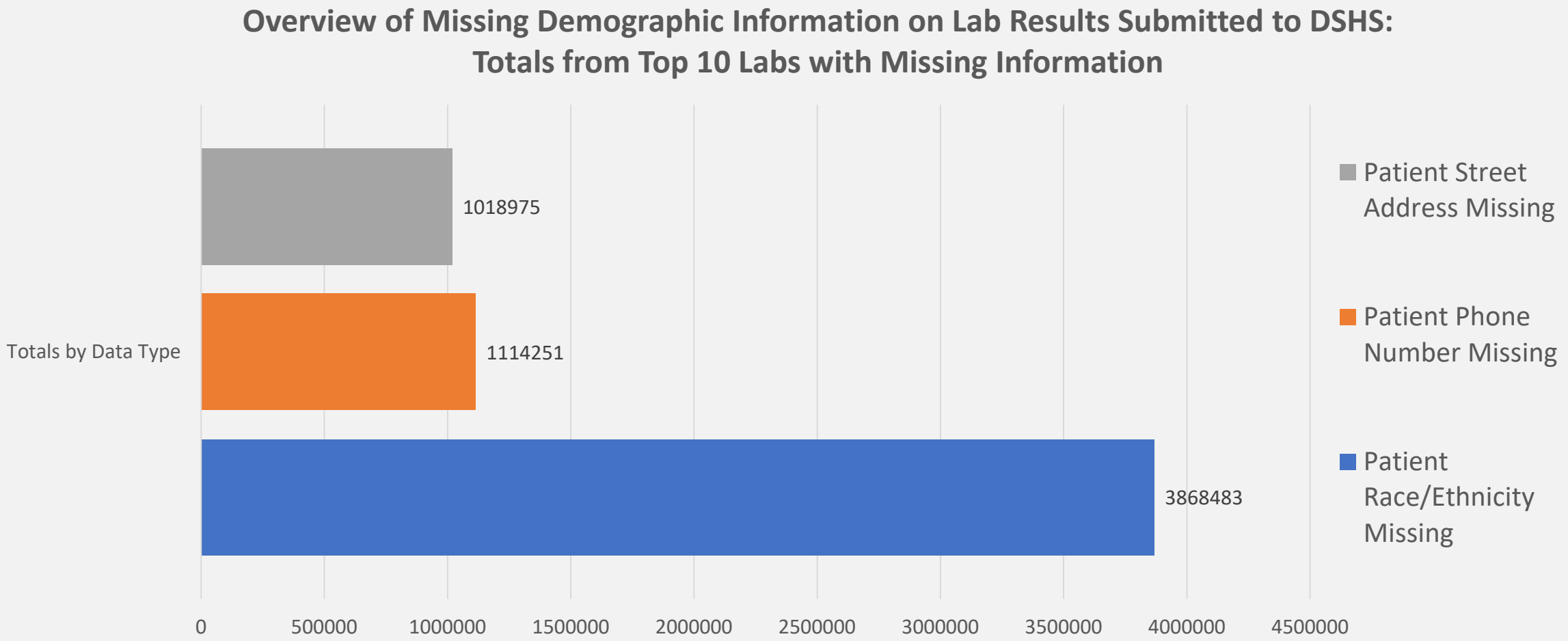


Testing: Timeliness of Submission

Top 10 CSV ELR Submitters and Average Number of Days to Submit



Testing: Quality of Data Submitted



Public Health Follow Up

Public Health Follow Up: History

- **Public Health Follow-Up (PHFU):** performed in Texas since inception of agency
  - Legislature created Texas Quarantine Department in 1879
- **Purpose:** to stop the spread (break the chain) of disease through case investigation and contact tracing
- **Previous uses:** TB, HIV/STD, Ebola, Zika, Foodborne Illness

Public Health Follow Up: History

- **Common Public Health Follow Up activities:**
  - Disease management in people who are infected
  - Disease comprehension
  - Confidential notification of contacts
  - Testing
  - Medical treatment/prevention
  - Support for isolation/quarantine recommendations
  - Other social service needs
- **Common Elements of Modern Public Health Follow Up**
  - Case Investigation
  - Contact Tracing

PHFU: COVID-19 Response

Case Investigation & Contact Tracing Activities	Pre-COVID	During COVID
Staffing	• Disease Intervention Specialists and Epis supported regional needs, local without epi staff • Central office and other regions assisted regional/local surge response needs as needed	• Initial use of central office epi staff and re-tasked regional staff from other public health programs • Increased number of full-time and contracted epis and contact tracing staff focused on COVID-19
Data Management	• No data system existed to manage magnitude of case investigations and other follow up • No system existed to support call center/workforce surge support • Data management through program-specific areas	• Continued data analysis of COVID-19 data via NEDSS and Texas Health Trace • Developed public health follow up unit to assist with data management
Case Investigation & Contact Tracing Process	• Identify cases through lab and provider reports, epi review of death certificate data • Contact tracing activities in existence for TB, HIV, STD, foodborne illnesses	• Continued identification via lab/provider/death data • Probable cases identified via contact tracing • Developed guided scripts for new workforce

PHFU: COVID-19 Response

Case Investigation & Contact Tracing Activities	Pre-COVID	During COVID
Case Definition/Form Management	• CDC & national process: case definition and treatment protocols updated every 5 yrs • State process: updated notifiable disease case definitions/forms/data entry guidelines every year	• Constant adaptation needed to due changing case definitions occurring at national levels • Updating of in-system scrips to follow changing guidelines and definitions and related communications to region/locals
Healthcare Acquired Infection Surveillance & Response	• HAI Epi provided infection prevention and control consultation to healthcare facilities as needed	• Continued and increased support for HAI prevention and control consultation facilities in Texas

PHFU: Texas Health Trace Overview

- **Prior to COVID-19:**
  - Statewide and local public health Public Health Follow Up Unit transmitted to DSHS using case investigation reports
  - Organized tracking occurred using localized databases or other ad hoc methods
- **COVID-19 Response:**
  - Built Texas Health Trace to support volume of case investigations and contact notification at statewide, regional, and local jurisdiction level
  - Built Public Health Follow Up Unit to support Texas Health Trace and statewide response effort

PHFU: Texas Health Trace Overview

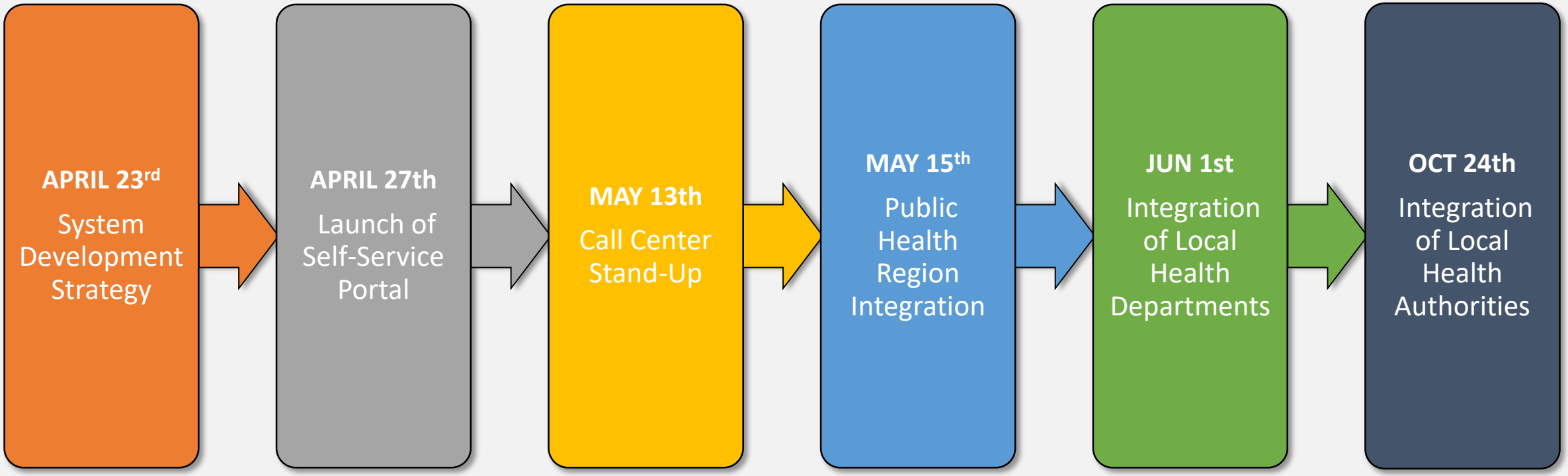
Needs addressed by Texas Health Trace (THT)

- Risk assessment
- Self-reporting
- Case management
- Lab ingestion
- Data exports
- Workload management
- Support telephony technology
- Jurisdictional assistance/support
- Data security measures
- Escalation notifications
- Staff training support
- Scripted flows for inexperienced case investigators/contact tracers
- Outbreak management (non-vulnerable populations)
- Data imports

PHFU: Texas Health Trace Overview

- **Solutions available within Texas Health Trace serve multiple purposes**
  - **Self service portal** – risk assessment and self-report for contact tracing
  - **Case management system** – use by DSHS, participating local health entities and authorities
  - **Call Center** – build up workforce to support case investigation and contact tracing efforts
- **Solutions also serve multiple stakeholders**
  - **Statewide** – more complete view of cases, PHFU responses, additional demographic and other data not captured in testing results
  - **Public Health Regions** – integrated into Texas Health Trace for full use of case and exposed contact investigations
  - **Local** – opened the system to local health departments in need of data systems and workforces support
  - **Local Health Authorities** – non-traditional public health partners interested in understanding their data and performing local contact tracing activities

PHFU: Texas Health Trace Development

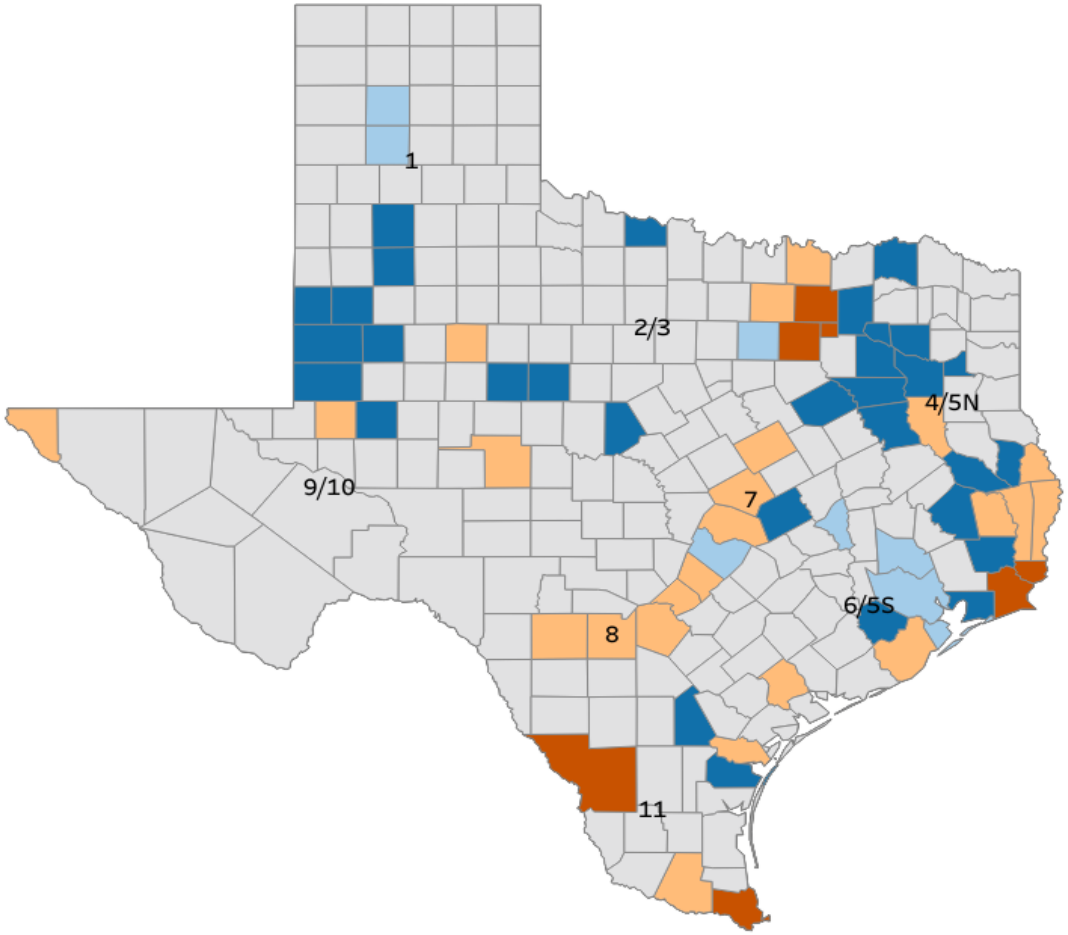


PHFU: Texas Health Trace Jurisdictions

Texas Health Trace option selected by local health entities

Option Legend:

- **Option 1A** (light blue) – use own system but work with DSHS on importing data into THT routinely
- **Option 1B** (dark blue) – use THT, but work all case and exposed contact investigations
- **Option 2** (light orange) – use THT, work all case investigations but use the call center for exposed contacts
- **Dark orange** have multiple jurisdictions within it, with different options
- **Grey areas** are covered by the Public Health Regions



PHFU: Challenges and Responses

- **LHEs and Data Systems**
  - **Challenge**:
    - Many had already implemented systems by the time THT was being developed
    - Data Integration
  - **Response:** Communications through webinars, emails, conference calls
- **Developing a system in the middle of a pandemic**
  - **Challenge**:
    - Sites felt overwhelmed with learning a new system while workforce was stretched
    - Couldn't meet immediate needs/wants
    - Data Retrieval and Data Quality
  - **Response:** In order to provide support, existing systems lack the functionality so we must create and learn a new system together.
- **No Public Health Follow Up Data Team**
  - **Challenge**:
    - Could not retrieve data for more advanced analytics
    - Could not perform data quality during the system development
  - **Response:** Development of the data analytics team for the PHFU Unit; perform data quality assurance; secure technology solutions to facilitate data analytics

PHFU: Challenges and Responses

- **Workforce**
  - **Challenge**:
    - Insufficient Public Health Follow Up staff available across the state
    - Staff were pulled from different programs
    - Some had no disease investigation experience
    - Changing landscape of need for case investigators instead of contact tracers
  - **Response:** build workforce support locally (funding support); implement call center strategy to respond to influx of disease investigations; shift from solely contact tracing to case investigations AND contact tracing; support surge needs in specific jurisdictions
- **Training**
  - **Challenge**:
    - There was no national training available initially
    - Needed to ramp up to train new workforce
  - **Response:** Developed Texas specific training; use of the ASTHO training once released; continue developing training tools

Hospital Reporting

Hospital Reporting: Overview

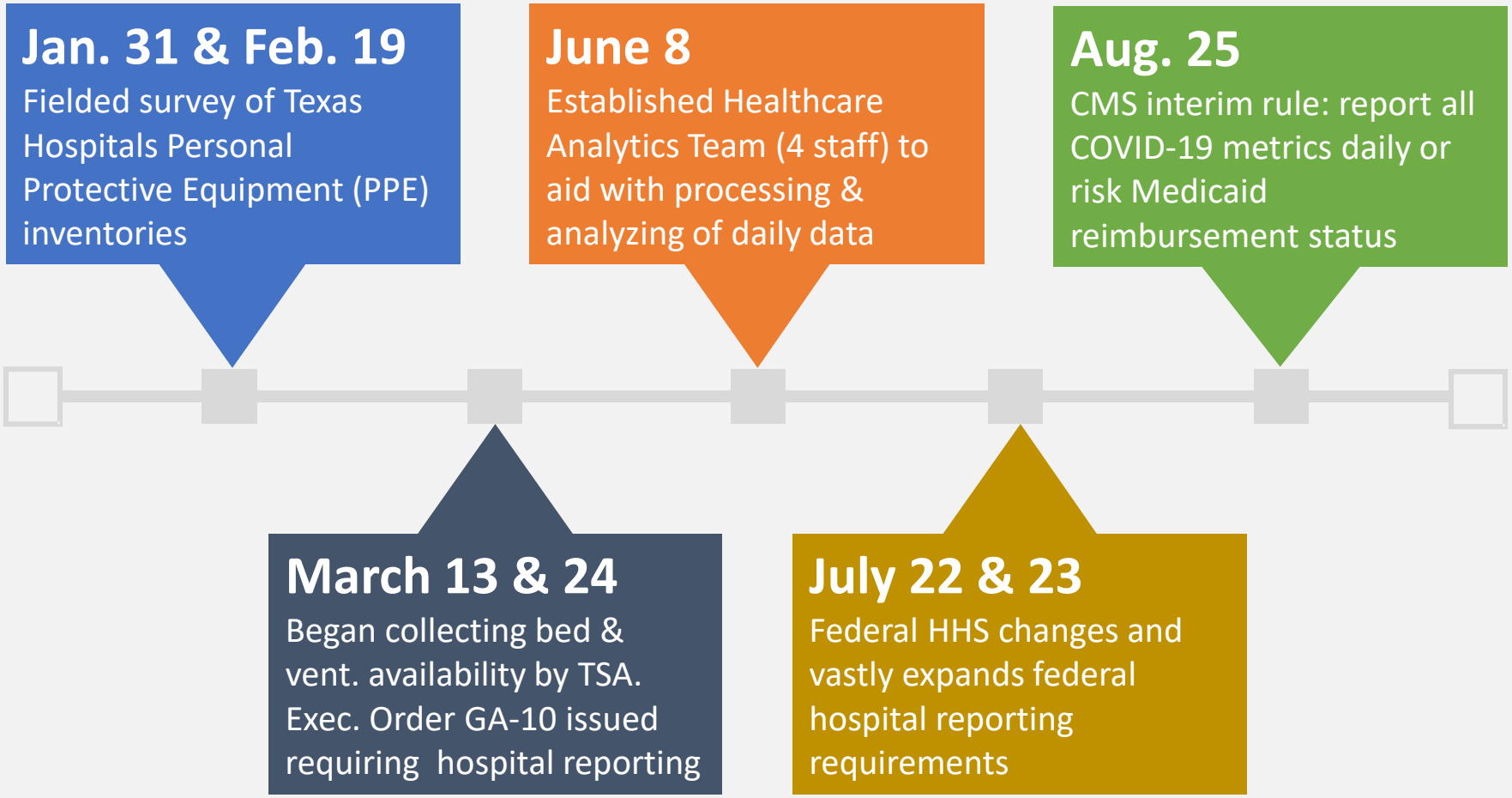
- **Prior to COVID-19:** DSHS historically collected hospital bed availability data during public health or medical disasters
  - Data points received by the 8 Hospital Preparedness Program (HPP) Providers
  - Prior to pandemic, facility level data had never been processed and analyzed to the extent it is currently being processed

- **COVID-19 Response:**

Data Points From Hospitals for HHS	Licensed Hospitals in Texas	Healthcare Facilities Reporting	Time to clean and process data daily
120	641	742	5 hours

- Daily number of data points processed from Texas facilities:**89,040**
- Total hospital reporting data points collected– from March 13, 2020 through December 7, 2020: **13,044,600**

Hospital Reporting: Timeline



Hospital Reporting: Response Uses

Hospital Surge Staffing

- Assigned 11/29: 9,632
- Total Staff Deployed During Pandemic: 12, 150
- Allocations based in part on STAR request in WebEOC and Hospitalization data

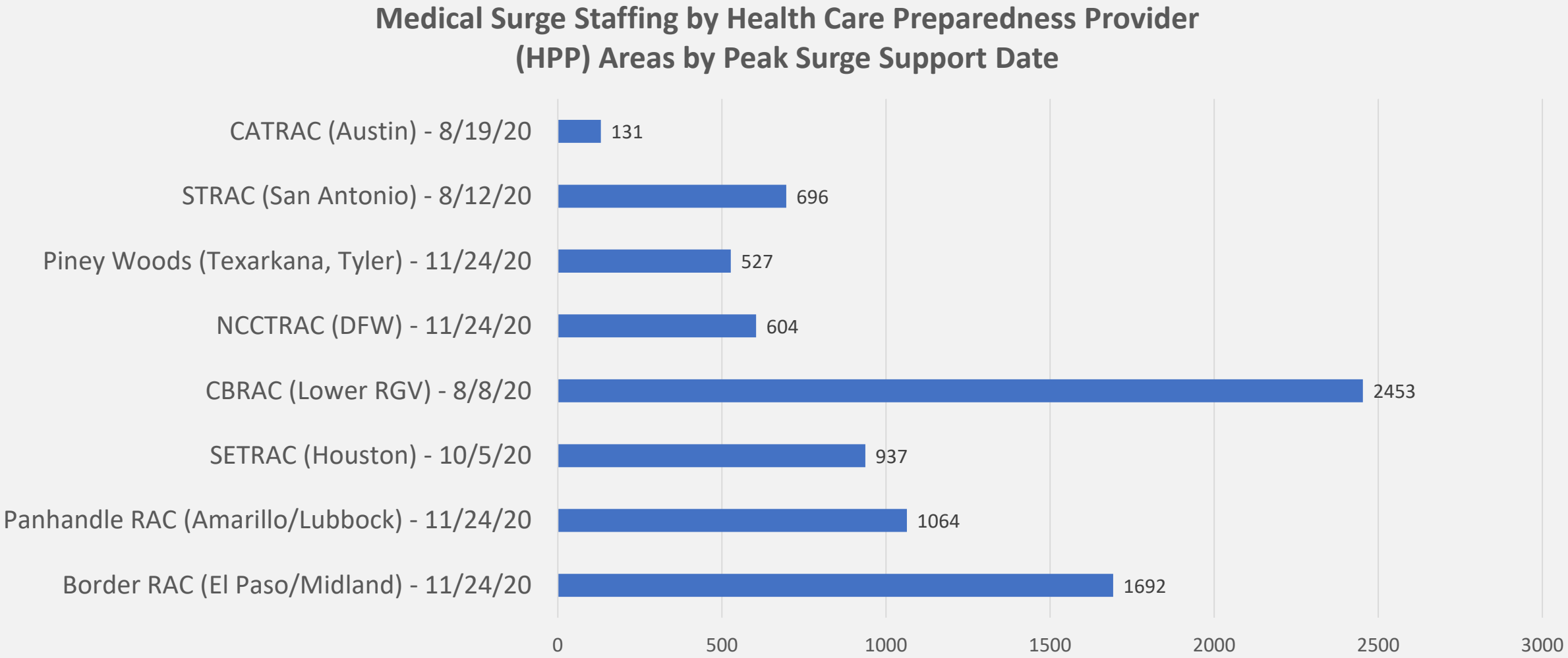
Therapeutics

- Remdesivir: 533,280 vials
- Monoclonal Antibodies: 20,704 doses
- Allocations based in part on Hospitalization data; Hospitals report usage in ImmTrac

Other Resources

- PPE, Durable Medical Equipment, Fatality Management, Other Staff Assistance
- Allocations based in part on STAR request in WebEOC and Hospitalization data

Hospital Reporting: Surge Staffing



Mortality Reporting

Mortality Data: Overview

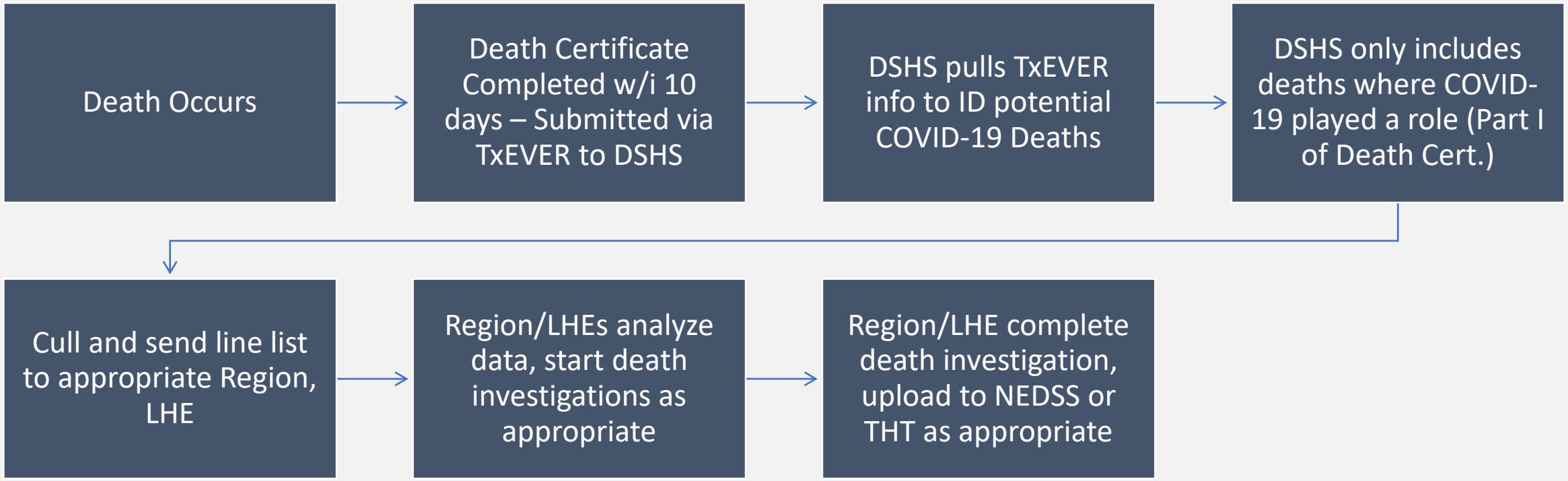
- **Pre- and Early COVID-19 Process:**
  - **Method 1: Case Investigation**
    - Public Health Regions (PHRs) and LHDs investigate possible COVID-19-associated deaths reported by healthcare facilities or those identified through death certificate review
    - PHRs and LHDs use the person under investigation (PUI)/case investigation form to guide COVID-19-associated death investigation
      - PUI/case investigation form includes some death-related questions
    - PHRs and LHDs report confirmed COVID-19-associated deaths into NEDSS.
    - DSHS review COVID-19-associated death information submitted in NEDSS.

Mortality Data: Overview

- **Pre- and Early COVID-19 Process:**
  - **Method 2: Local Reporting of Deaths**
    - DSHS would utilize local reporting of mortality data as local jurisdictions updated public information
    - Some local reporting included information submitted via Method 1
    - But could also include other methods
- **Caveats of early mortality statistics:**
  - Unclear when death actually occurred
  - Unclear whether death was for a resident of that jurisdiction or died within jurisdiction – (e.g. in hospital, hospice, or other facility that was not the person's Texas residence).
  - Limited demographic information

Mortality Data: Overview

Current Process: Death Certificate-Driven Reporting Process



Mortality Data: Transition Effect

- **All death certificates required to be initially submitted to DSHS within 10 days of date of death**
  - COVID-19 Reporting becomes more systematic but subject to fluctuation based on when a death certificate is finalized within the 10-day period
- **All death certificates include required demographic information**
  - Place of residence
  - Location of death
  - Demographic information, including race/ethnicity
  - Other information related to a COVID-19 related death, including other observed/related health conditions
- **Continued education of medical certifiers (physicians, MEs, justices of the peace) about the need for accurate and complete reporting**
  - Emphasis on appropriate reporting of COVID-19 deaths when it is based on medical certifier's best judgment that COVID-19 led to the person's death

Future State of Data

Future State of Data

Upcoming Changes to DSHS Dashboard – December 2020

- **Probable Cases to Be Added:** statewide and at the county level.
  - **Identified**: through antigen testing or a combination of symptoms and a known exposure without a more likely diagnosis.
  - **Use**: probable counts, and in calculations of active and recovered cases
- **Positivity Rate to Be Streamlined:** keeping specimen collection date, retiring lab test reported and case reported-derived rates.
  - **Specimen collected method:** most accurate measure of percentage of positive tests at a given point in time.
  - **Probable Cases:** will have positivity rate calculated in addition to confirmed case positivity rates.
- **COVID-19 Vaccination Dashboard:** providing information covering vaccine allocation and distribution