TEXAS
Health and Human Services

Texas Department of State Health Services

Electronic Case Reporting & Interoperability Updates at Texas Department of State Health Services

Texas Interoperability Symposium

September 15, 2024

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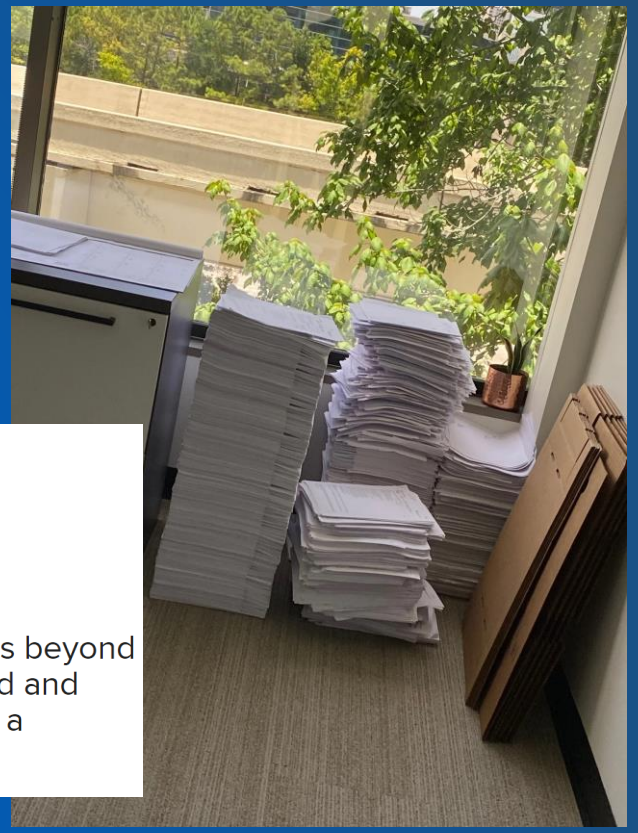
Texas Department of State Health Services (DSHS)

Overview

- Electronic Case Reporting (eCR)
- DSHS Onboarding Requirements for eCR
- Data Modernization Initiative
- Interoperability and Functionality Improvements
- State Health Analytics & Reporting Platform (SHARP)

JULY 15, 2020

One culprit in America's slow coronavirus response: Fax machines



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Infectious Disease Report

Form is published at http://www.dshs.state.tx.us/idcu/investigation/conditions/

General Instructions

This form may be used to ***report suspected cases and cases of notifiable conditions*** in Texas, listed with their reporting timeframes on the current *Texas Notifiable Conditions List* available at http://www.dshs.state.tx.us/idcu/investigation/conditions/. In addition to specified reportable conditions, ***any outbreak, exotic disease, or unusual group expression of disease that may be of public health concern should be reported*** *by the most expeditious means available.* A health department epidemiologist may contact you to further investigate this Infectious Disease Report.

Suspected cases and cases should be reported to your local or regional health department.

Contact information for your local or regional health department can be found at:
http://www.dshs.state.tx.us/idcu/investigation/conditions/contacts/

As needed, cases may be reported to the Department of State Health Services by calling 1-800-252-8239.

Disease or Condition		Date: _____ (*Check type*) *(Please fill in onset or closest known date)*	☐ Onset ☐ Absence	☐ Specimen collection ☐ Office visit	
Practitioner Name	Practitioner Address/☐ See Facility address below		Practitioner Phone/☐ See Facility phone below (_____) _____ - _____		
Diagnostic Criteria (Diagnostic Lab Test Type, Result, and Specimen Source if applicable and/or Clinical Indicators)					
Patient: Name (Last)	(First)	(MI)	Phone Number: (____) ____ - _____		
Address (Street)	City	State	Zip Code	County	
Date of Birth (mm/dd/yyyy)	Age	Sex ☐ Male ☐ Female ☐ Other_____	Ethnicity ☐ Hispanic ☐ Not Hispanic	Race ☐ White ☐ Black ☐ Asian ☐ Other ☐ Unknown	
Notes, comments, additional information such as other lab tests/results, clinical info, pregnancy status, occupation (food handler), school name/grade, travel history					

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Notes, comments, additional information such as other lab tests/results, clinical info, pregnancy status, occupation (food handler), school name/grade, travel history					

HEALTH IT, MEDCITY INFLUENCERS

Opinion: Our country's health IT infrastructure needs an upgrade

The value of tech-enablement in a clinician's day-to-day goes beyond our current outbreak scenarios. So much is still done by hand and faxed around that it screams of mid-90s nostalgia, but not in a charming way.

'The data is moving slower than the disease'

Now, America seems to be paying the price in other ways, as public health officials say fax machines are slowing the country's response to its resurging coronavirus epidemic, according to Kliff and Sanger-Katz.

- “Public health is like a thousand gnats. They consistently pester you, but they never help you do anything.” --- Prominent EHR vendor

What is Electronic Case Reporting (eCR)?

eICR (Electronic Initial Case Report)

- The automated generation and transmission of case reports from electronic health records to public health agencies for review and action.
- Meant to replace the initial report (e.g. Epi-1 form) from a provider that can trigger a public health case investigation
- Extracts key data elements from patient's electronic health record and sends that data to public health

Benefits of Electronic Case Reporting

For Public Health Agencies

- Provides more timely and complete data to support outbreak management and monitor disease trends
- Efficiently monitors the spread of reportable diseases like COVID-19 during outbreaks and public health emergencies
- Reduces response time with automated information
- Improves communication and collaboration with healthcare by enabling bidirectional data exchange
- Case reporting supports submission of anonymized case-based data to CDC from state and local public health agencies through the National Notifiable Diseases Surveillance System.

For Healthcare Providers

- Reduces the burden of reporting to public health by healthcare professionals, staff, and facilities without disrupting the clinical workflow
- Helps eliminate manual reporting
- Accommodates reporting across jurisdictions based on state or local regulations
- Can fulfill legal reporting requirements
- Improves COVID-19 reporting immediately and allows expansion to all reportable conditions
- Offers credit through the Centers for Medicare and Medicaid Services Promoting Interoperability Program pdf
- Connects in real time with public health agencies

Texas Electronic Case Reporting Goals

Enhance epidemiological case report data to expedite public health follow up to prevent further disease transmission

Increase timeliness of initial case reports of notifiable conditions to public health

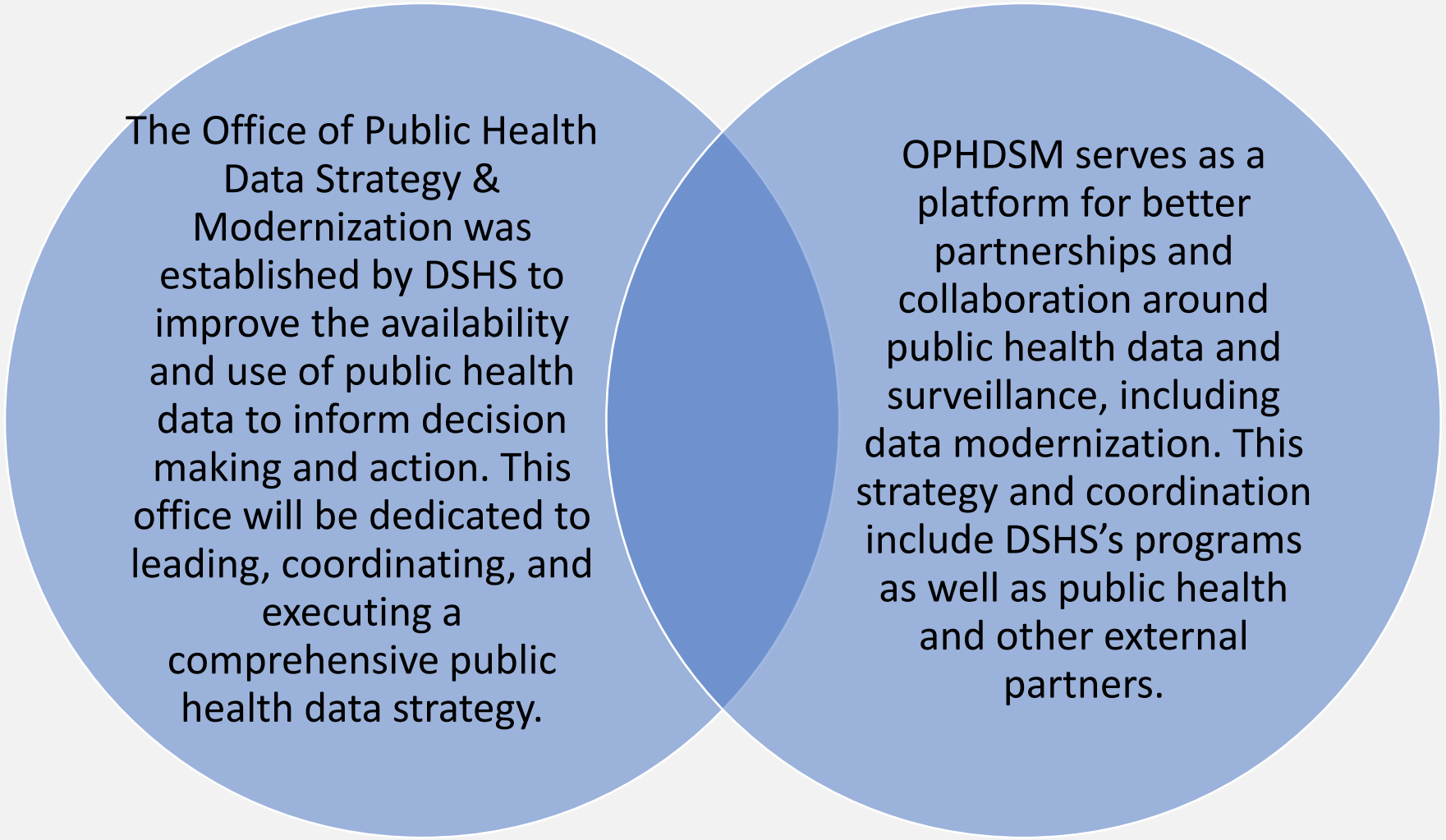
Reduce Provider Burden in Reporting Notifiable Conditions to Public Health

Reduce public health burden of follow up by streamlining access to key case investigation elements

Provide clear guidance to both reporters and to public health on eCR reporting requirements in Texas

Public Health in Texas

DSHS Office of Public Health Data Strategy & Modernization (OPHDSM)



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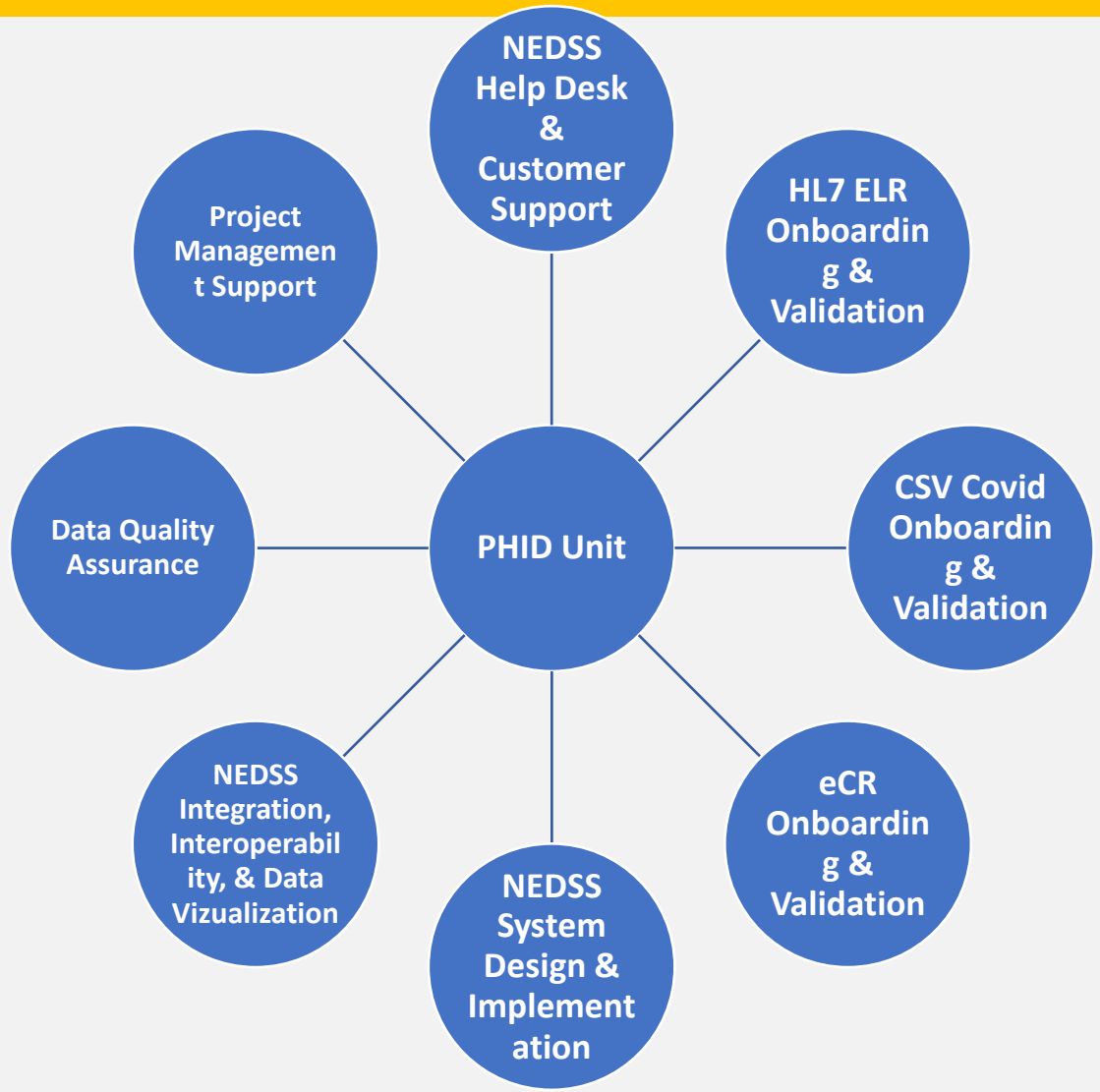
Office of Public Health Data Strategy & Modernization (OPHDSM)

Overall responsibilities of OPHDSM include:

- Managing public health core data systems, technology solutions and tools, and data policy essential to public health
- Promoting response-ready data and systems
- Incorporating end-user design principles to meet the needs of PHRs, LHDs, and stakeholder partners
- Prioritizing efforts to improve access to and the dissemination of data to inform decision-making

Public Health Informatics & Data Exchange Unit



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DSHS Electronic Case Reporting Onboarding & Validation Team

- 1 eCR Lead & 1 HL7 Certified Project Manager
- 1 Admin & 2 Program Support Specialists
- 3 Backend eCR Specialists
  - 2 HL7 Certified Analysts & Specialized Support Team
    - •1 Health Informatics Specialist backend data specialist
    - •1 Additional support HIS IV backend specialist
  - 3 HIS IV- Epi informatics specialists
- 3 eCR Core Validation & QA Team
  - LOINC/SNOMED review
  - eCR validity & completeness assessment
  - Skilled and knowledgeable in eCR & ELR reporting requirements
- 1 IT Integration Specialist & 2 DBAs

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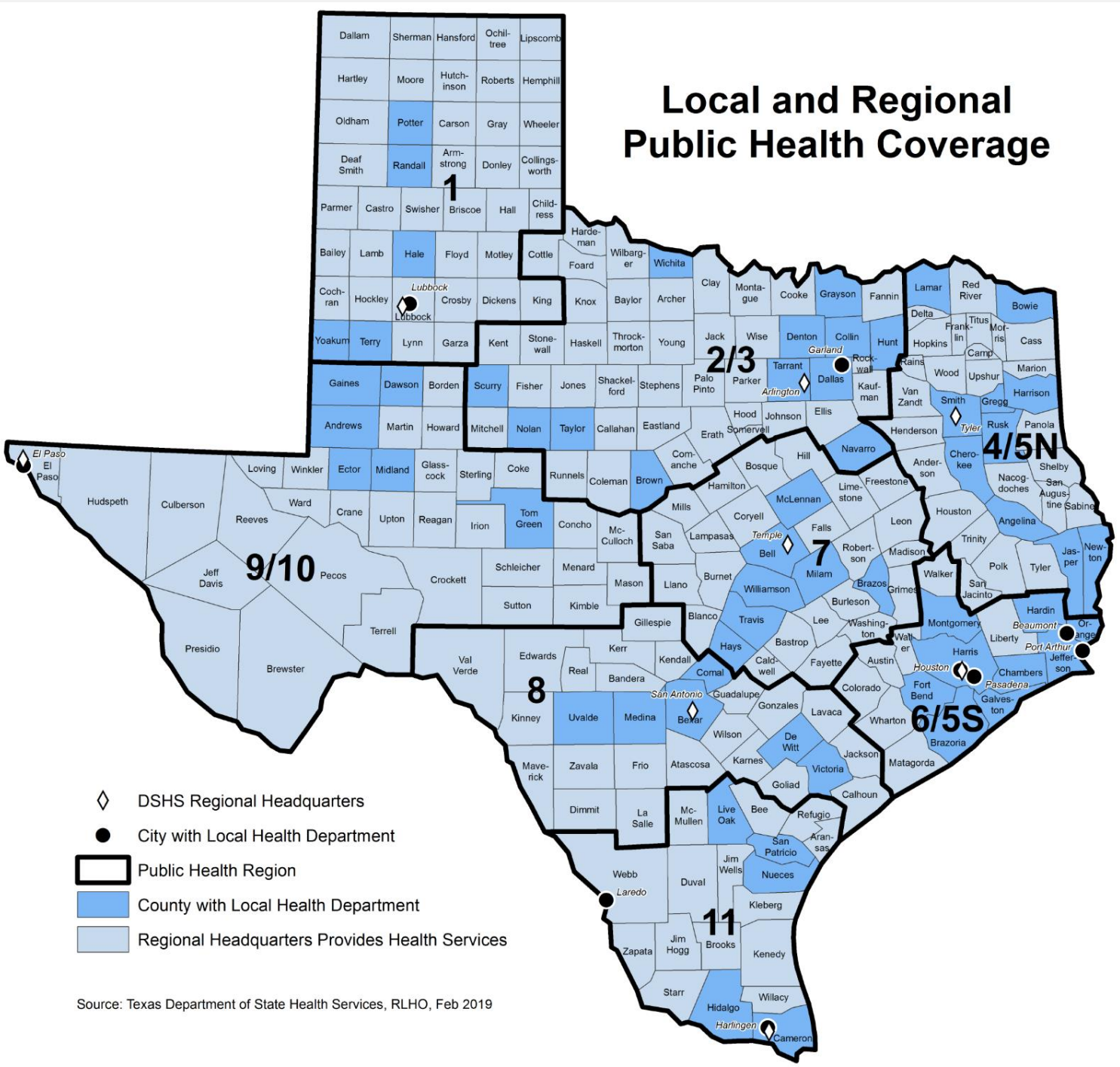
Local and Regional Public Health Coverage



Source: Texas Department of State Health Services, RLHO, Feb 2019

Background on Public Health Reporting in Texas

- Voluntary electronic laboratory reporting began in 2002 at DSHS
- Texas National Electronic Disease Surveillance System (NEDSS) was launched in 2004
- NEDSS provides a platform to ensure data validation is in place to ensure accuracy of epidemiological case criteria is met
- ELR required as part of CMS Promoting Interoperability (formerly Meaningful Use) in 2015

eCR Implications on Future Public Health Surveillance

For the past 20 years, ELRs have been the primary trigger for most public health investigations

Most public health case investigations require more data on the patient's condition beyond ELR

The addition of eCR now provides a better comprehensive view of the the patient encounter and may provide investigator with enriched data. May reduce need for follow up

- Calls to providers
- Calls to patient
- Requests for medical records
- Travel to conduct medical record abstraction

Automation of both ELR and eCR into NEDSS in the future will improve overall timeliness, completeness, and data validity.

eCR refreshes every 30 minutes in NEDSS- early notification

eCR Pilot Efforts

eCR Phases and Estimated Timelines

SUCCESSFULLY COMPLETED

PHASE I

- eCR planning
- eCR infrastructure development
- eCR pilot for COVID
- Specialized algorithm developed for COVID
- COVID eCR in production — **Oct 2022**
- Onboarding of *active* HCOs — **Nov 2022**

SUCCESSFULLY COMPLETED

PHASE II

- eCR pilot begins to expand conditions — **Dec 2022**
- Establish comprehensive onboarding process for notifiable conditions in NEDSS
- Epi SME review of expanded conditions in Test environment — **Jan2023**
- Complete Phase 2 pilot — **Mar 2023**
- Finalize Texas eCR Guidelines for Onboarding for hospitals

SUCCESSFULLY COMPLETED

PHASE III

- Rollout of new conditions by Program Area into NEDSS — **Aug 2023**
- Continue to author & publish more conditions as made available by CDC/RCKMS
- Continue Onboarding & validation of active HCOs — **Ongoing →**
- Continued communication on new conditions and new HCOs onboarded
- Parallel review of eCRs being conducted by LHD/PHRs

Many Thanks to Our eCR Pilot Partners

Phase 1: COVID-19

- **Baylor Scott & White**
- **Cook Children's**
- DSHS PHR 2/3 & 7

Phase 2: Expanding to all conditions (non-COVID)

- **Baylor Scott & White**
- **Parkland**
- DSHS PHR 2/3 & 7

eCR Onboarding Process

Electronic Case Reporting Update

DSHS declared readiness for electronic case reporting on September 1, 2023.

- The declaration was made specifically for **Critical Access Hospitals (CAHs) and Eligible Hospitals (EHs) in Texas** as defined by CMS.
- Although DSHS went live with eCR in September 2022, the declaration was delayed to provide time for hospitals subject to CMS PIP to prepare their EHR systems.
- DSHS communication efforts incorporated feedback from stakeholder partners.

eCR Onboarding Steps

1. Register with DSHS for eCR	*• Please complete and submit the DSHS eCR registration form. After registering, DSHS will provide healthcare organization with instructions for beginning the process to onboard with Texas. The items requested by DSHS can be worked on simultaneously while healthcare organizations also begin step 2.*
2. Successfully onboard to production with APHL Informatics Messaging Services (AIMS)	*• EHs and CAHs may begin the eCR process by connecting and onboarding with AIMS at eCR@cdc.gov. This step will be completed when your organization is able to successfully send production messages via AIMS. Please follow all guidance given by AIMS.*
3. Finalize eCR onboarding with DSHS Texas	*• DSHS will prioritize outreach to eligible hospitals and CAHs based upon facilities' onboarding completion date of step 2 above with AIMS. Texas will require registration (if not already completed in step 1), completed facility lists, completed data mapping worksheet, and final validation assessing data quality and data completeness.*
4. eCR Parallel Production	*• When an organization has successfully completed onboarding with both AIMS AND DSHS Texas, they will remain in parallel production until explicitly told from DSHS to stop reporting manually. During this time local health departments will review data received manually (e.g., fax, phone, or mail) against data received via eICR messages to identify potential gaps.*
5. Release from Manual Reporting (TBD Criteria still under development)	*• Important note: Unless DSHS explicitly directs your facility to stop submitting manual data, eligible hospitals and CAHs must continue to report all case reports to their public health jurisdictions. DSHS is coordinating with local health departments to determine criteria for releasing facilities from manual reporting to public health.*

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Documents Needed from Health Care Organizations (HCOs)

Registration- completed via https://app.smartsheet.com/b/form/d9668b3df7a743309af7e46123fd461e

- **Bulk registration list-** needed if registering multiple healthcare organizations (HCOs)
- **Facility template lists-** comprehensive list of all facilities within HCO where a diagnosis of a notifiable disease might occur (all brick & mortar locations)
- Both of the above lists are links provided during registration and should be submitted via upload function embedded in registration form

Data mapping worksheet- assessment covering LOINC specific to COVID to ensure we are receiving ELRs from HCO to which eICRs will be matched

- This worksheet is available for HCOs to download and submit during registration. HCOs may also submit at a later date to TexasECR@dshs.Texas.gov

Validation with DSHS

- DSHS will review data mapping spreadsheet submitted by HCO and provide feedback on any issues identified including erroneous LOINCs or local codes.
- DSHS will review sample raw eCR messages submitted from HCO to AIMS and will provide feedback if any issues identified.
- DSHS will conduct a check for data validity and data completeness on the eCR messages submitted via AIMS. DSHS will contact HCO if any issues are identified such as local codes in improper fields.

Parallel Production

- Once an HCO has successfully completed all onboarding steps, that HCO will then move into parallel production.
- Additional guidance set to come from collaboration with DSHS, local, and regional health departments.

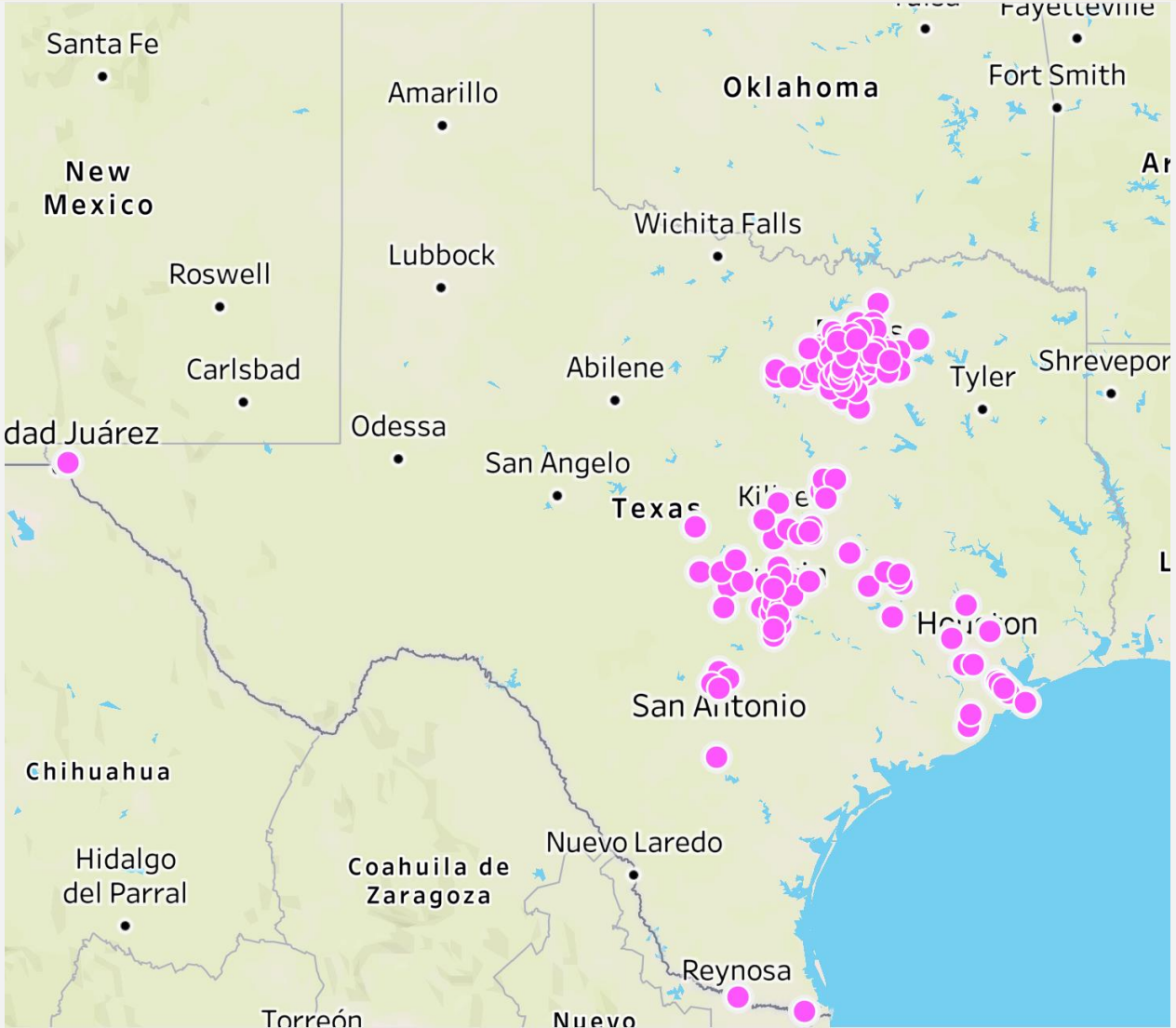
eCR Operations

Health Care Organizations (HCOs) Live in NEDSS for eCR

In NEDSS production:

- Baylor Scott & White Health System
- Cook Children's Hospital Health System
- Parkland Hospital Health System
- University of Texas Medical Branch (UTMB) Health System
- Corpus Christi Medical Center
- Houston Healthcare
- Houston Methodist
- Las Palmas Del Sol Healthcare
- Medical City Health
- Methodist System San Antonio
- Rio Grande Regional Hospital
- St. David's Central Texas/Austin
- Valley Regional Medical Center
- Women's Hospital of Texas

Healthcare Organizations in eCR Production in Texas NEDSS



eCR Submitters

- 14 HCOs
- 476 Facilities

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Electronic Case Report Operational Update

- Roll out of reportable conditions to users is complete
- A total of 65 disease conditions are in production in NEDSS
- A few conditions were placed on hold for production
- Monitoring for any new conditions or updates needed

Tentative Date for Release	Program Area	Reporting Category	Status in NEDSS
14-Aug	Zoonotic Control conditions	1 week	In Production
7-Aug	Infectious respiratory	1 week	In Production
31-Jul	Vaccine preventable diseases	1 week	In Production
31-Jul	Foodborne & Waterborne diseases	1 week	In Production
29-May	Health Acquired Infectious Diseases/MDRO	Immediate & 1 day	In Production
22-May	High Consequence Infectious Diseases	Immediate & 1 day	In Production
15-May	Infectious respiratory	Immediate & 1 day	In Production
15-May	Zoonotic Control conditions	Immediate & 1 day	In Production
17-Apr	Vaccine preventable diseases	Immediate & 1 day	In Production
17-Apr	Foodborne & Waterborne diseases	Immediate & 1 day	In Production

eCR Production in Texas NEDSS (65K+)

65,000+ eCRs successfully processed & distributed to public health departments via NEDSS since Oct 2022

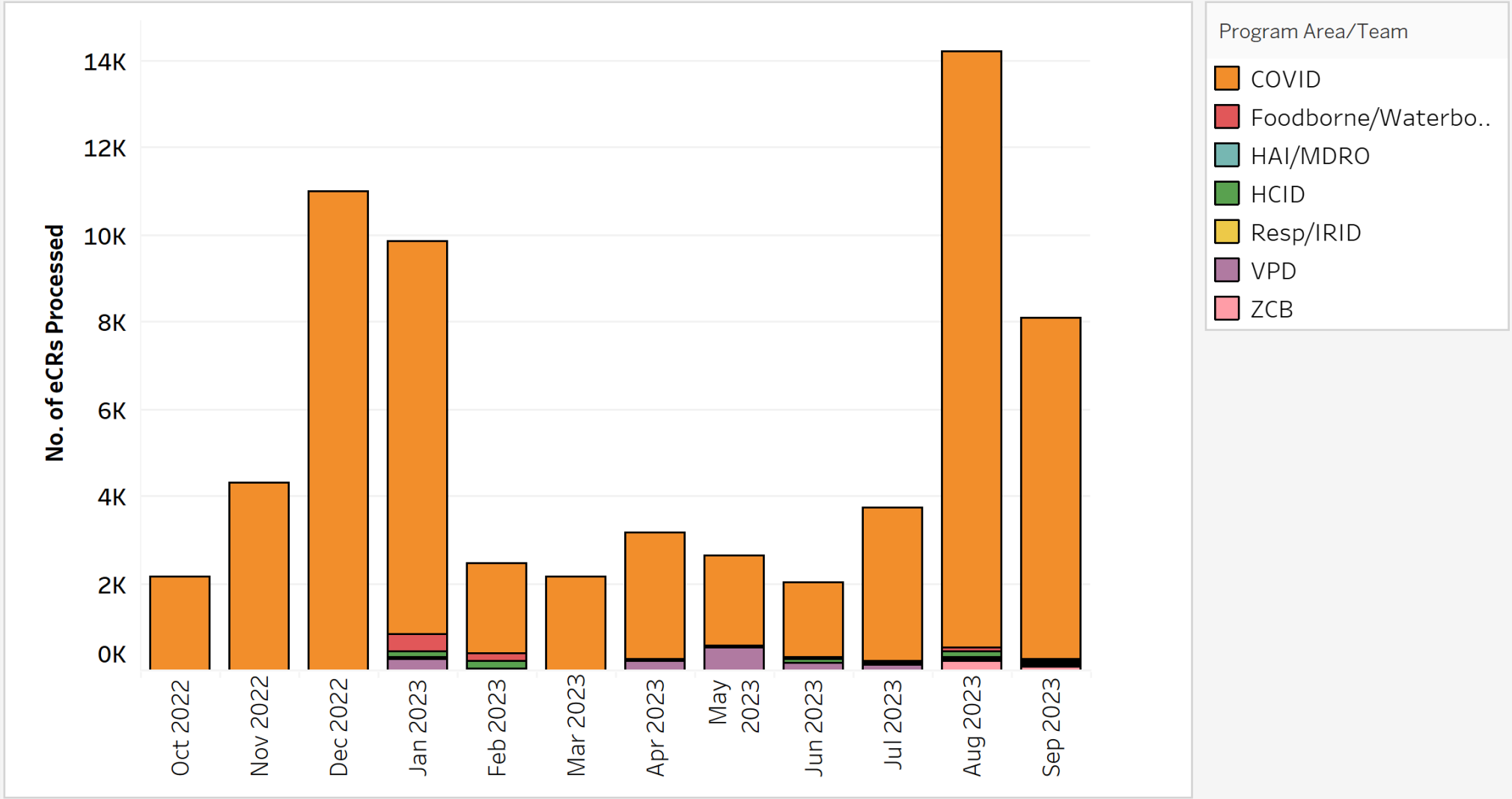
October 2022: COVID-19 eCR went live in NEDSS

- Automated matching algorithm implemented to match existing COVID-19 cases (confirmed or probable) with incoming COVID-19 eICRs
- If matched, incoming eICRs are associated with existing case investigation
- COVID-19 eICR datamart available to identify cases with a matching eICR

Current: Additional eCR conditions expanded into NEDSS production

- Over 75 conditions authored
- 64 conditions approved by Epi SME to production
- Roll out of non-COVID eCR conditions is completed for now and up to date
- eCR conditions are limited to those available through CDC/CSTE RCKMS criteria, they are continually working on adding new conditions

eCRs Processed in Texas NEDSS (65K+)



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Successful Expansion of Public Health Program to eCR

Recent eCR work expanded to **Birth Defects Program**

- Routes developed to support ingestion and processing of birth defects conditions
- 11 birth defect conditions for eCR authored
  - Anencephaly
  - Cleft Lip Alone
  - Cleft Lip with Cleft Palate
  - Cleft Palate Alone
  - Down Syndrome
  - Gastroschisis
  - Infant Hearing Loss
  - Limb Reduction
  - Phenylketonuria
  - Primary Congenital Hypothyroidism
  - Spina Bifida

- Texas is one of only two states in the nation to implement eCR for birth defects
- CDC has applauded and highlighted this excellent collaboration as a model for eCR expansion

Electronic Case Reports (eCR) cont.

Successful Program Partnership & Collaboration

- PHID worked with Birth Defects program to author 11 birth defects conditions from RCKMS
- Since Birth Defects' current system did not have the capacity to ingest eCR messages, PHID developed a customized data integration route for the Birth Defects program
- The data is currenty being processed and directed to Birth Defect's Globalscape folders and epis are able to download CSV files that are easy to analyze/extract from as opposed to previous PDF files the program would receive
- Current work underway to move the data from these conditions over to SHARP where the data will be automated and constantly refreshed
- The move to SHARP will allow the program to establish Tableau dashboards and conduct data analysis more easily and in a more time efficient manner
- Texas is 1 of only 2 states that has implemented eCR for Birth Defects conditions
- CDC has highlighted the Texas success story as a model for other states to emulate

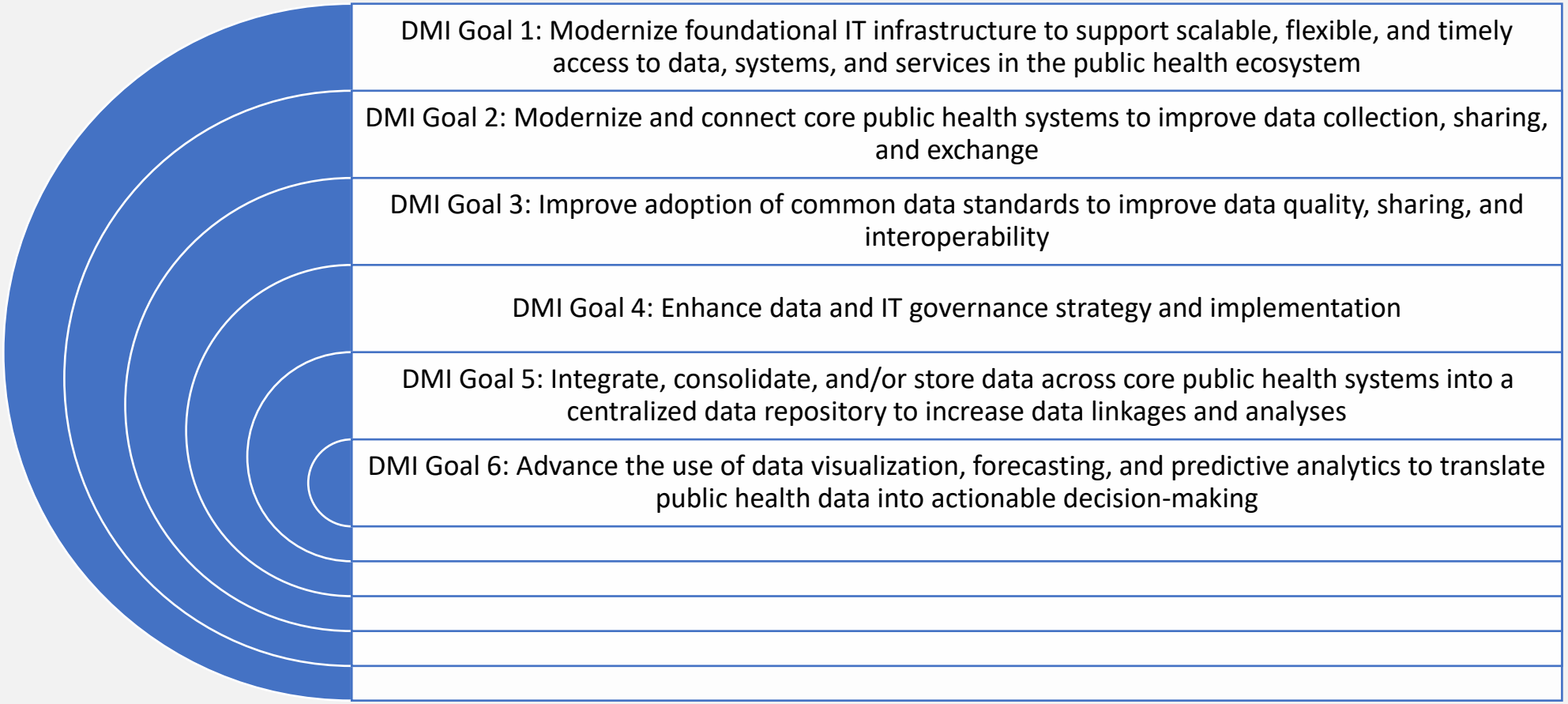
Successful Expansion of Public Health Program to eCR

Planning underway with additional programs:

- Newborn Screening
- Environmental Injury & Toxicology
- Cancer Program

Data Modernization Initiative

Data Modernization Initiative (DMI)



Additional Interoperability Enhancements

Successes to Highlight

- Texas was first state to develop COVID Lab CSV template
  - CDC adapted process and provided guidance to other states for use during COVID
- Texas added to the CDC Change Control Board (CCB) for NEDSS
- Texas was first to successfully test/ingest COVID variant results in NEDSS (via HL7 and CSV)
  - Developed first variant CSV template in the nation
- Texas was first state to add a monkeypox page builder
  - Customized page builder was shared by CDC to other states
- Integration with Texas Immunization Registry, ImmTrac2
- Several enhancements and functionalities implemented

NEDSS Interoperability & Functional Improvements (NIFI) Projects

Successfully Completed

- Phase 1 scope included 10 epics that focused on enhancing key areas of the NEDSS system, including performance, integration, and application enhancement
- Performance
  - Enhance NEDSS Data Ingestion Process
  - Enhance NEDSS Application Performance for Data Import & Export
  - Improve NEDSS ETL Process
- Integration
  - Implement Bulk Import of Vaccination Data into NEDSS
  - Implement electronic initial case reports
  - implement fast healthcare interoperability resources
- Application Enhancement
  - Field-level security
  - Implement audit logging capabilities
  - Enhance the NEDSS existing public health follow up capabilities
  - Outbreak management

NEDSS Interoperability & Functional Improvement (NIFI) Project Updates

In under 2 years, DSHS implemented over 70 new features into TX NEDSS via the NIFI initiative!

- NIFI 1-2 successfully closed out
- NIFI 3 initiating several new functions including improving automation processing, enhancing eCR reporting, and enhancing application performance

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NEDSS Interoperability & Functional Improvement (NIFI) Project Updates

A major achievement included successful integration of NEDSS with ImmTrac2

- Automated bulk vaccination and association for COVID cases
- Automated bulk vaccination and association pending for VPD conditions

Introduction to SHARP

State Health Analytics & Reporting Platform (SHARP)

Award Winner!

SHARP won the **Project Excellence Award** from the Texas Association of State Systems for Computing Communications (**TASSCC**) in August 2021!

State Health Analytics & Reporting Platform (SHARP)

What is SHARP?

The State Health Analytics & Reporting Platform (SHARP) is designed to **expand data analytics capabilities** and reduce manual processes to produce **reliable reports and analyses.** SHARP also enables and enhances the **data governance** of the agency's data assets.

BACKGROUND

What is SHARP?

SHARP is a **platform**, which means it is comprised of a **data warehouse** and various **data analytics and visualization tools** that work together for reporting and analysis.

SHARP is a **collection of tools and technologies,** not a singular tool or application. This means SHARP itself is not something you log into, rather you log into each of the tools that are part of SHARP as you need them.

What can SHARP do?

SHARP **integrates**, **stores**, and **enables the analysis** of public health data.

SHARP can **automate complex, tedious data processing jobs** to produce reliable, efficient reports and dashboards.

The platform **reduces the need for manual data processing,** increases **efficiency,** and produces **reliable reports & analysis.**

What data are in SHARP?

Data in **SHARP come from various sources** (data sources DSHS already leverages) and the data are ingested into the platform **for reporting and analysis**.

SHARP only contains **data that serve specific reporting needs**. All data in SHARP must be approved to be a part of the platform.

SHARP stands for State Health Analytics & Reporting Platform.

Understanding SHARP

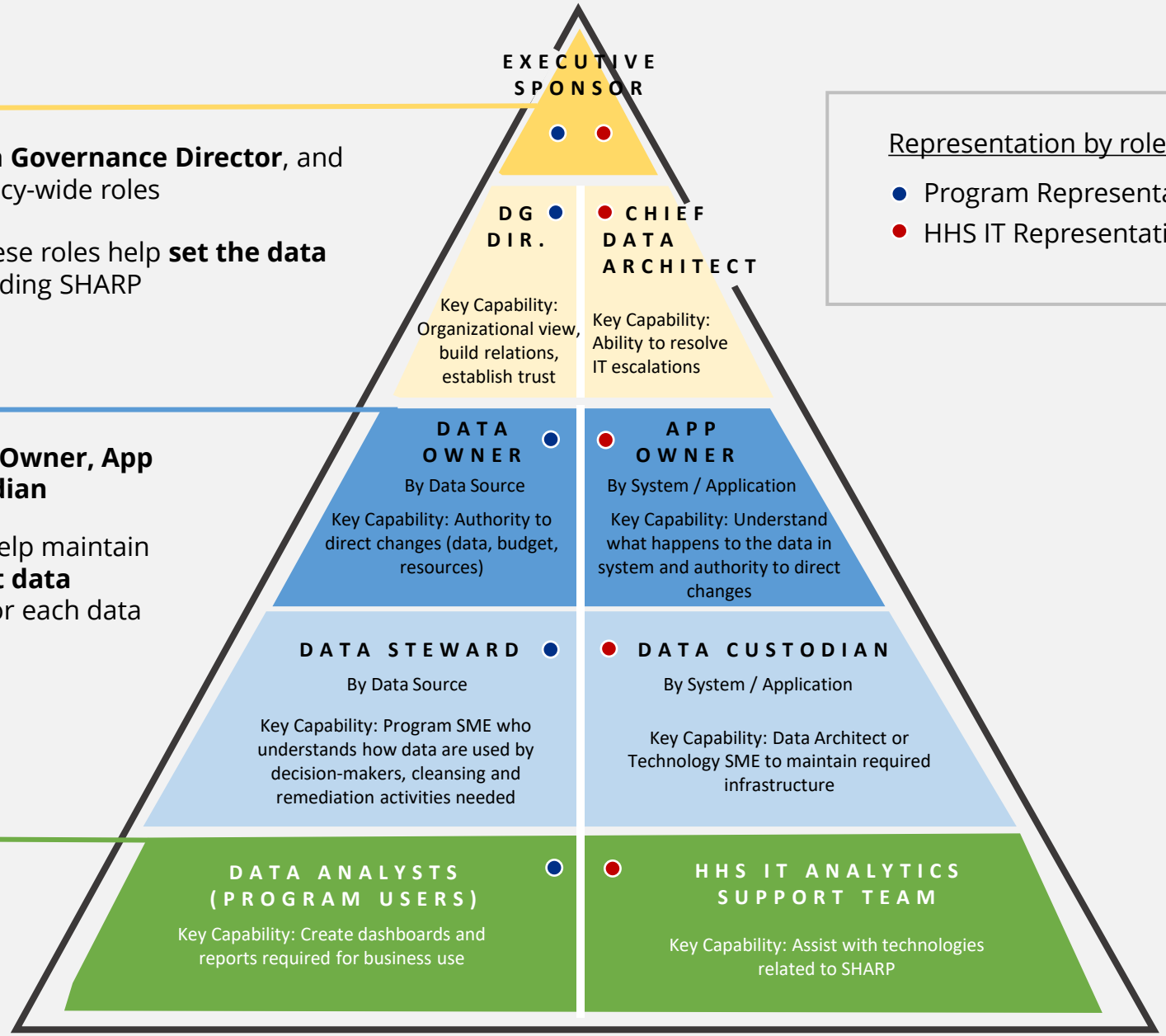
SHARP is…	SHARP is *NOT*…
A collection of data from source systems selected for specific reporting purposes	Replacing any existing systems of record (source systems) or means of collecting or reporting data
A way to enhance data sharing and reporting to better enable data-driven decision making with key insights about Texas public health	A health information exchange (HIE) or electronic health record (EHR)
A conglomeration of many tools working together to allow for high-value, efficient reports that save data analysts time on data cleansing and manual data analysis efforts	A singular tool or application to be 'accessed' or 'logged in to' (rather you log into each tool that make up SHARP, based on job duties)
A platform that allows for more streamlined data governance efforts, documentation, and business processes	Meant to complicate your existing work (rather, it's meant to simplify!)

Who is involved?

- The **Executive Sponsors**, **Data Governance Director**, and **Chief Data Architect** are agency-wide roles
- The individuals who occupy these roles help **set the data strategy for the agency**, including SHARP

- Each data source has its respective **Data Owner, App Owner, Data Steward,** and **Data Custodian**
- The individuals who occupy these roles help maintain key documentation and **ensure the right data governance activities are happening** for each data source in SHARP

- SHARP's primary users are **DSHS Data Analysts.** Data Analysts refer to any program staff who interact with data, such as epidemiologists and research specialists.
- **HHS IT Analytics Support Team** and outside contractors work with Programs to set up data sources in SHARP and maintain the data



Representation by role type:

- Program Representation
- HHS IT Representation

Why SHARP?

HOW IT STARTED

IDDI: COVID-19 Pandemic

- SHARP was first created as a response to COVID-19 and was originally called Infectious Disease Data Integration (IDDI)
- When COVID-19 hit, DSHS needed expanded data analytics capabilities for real-time decision making

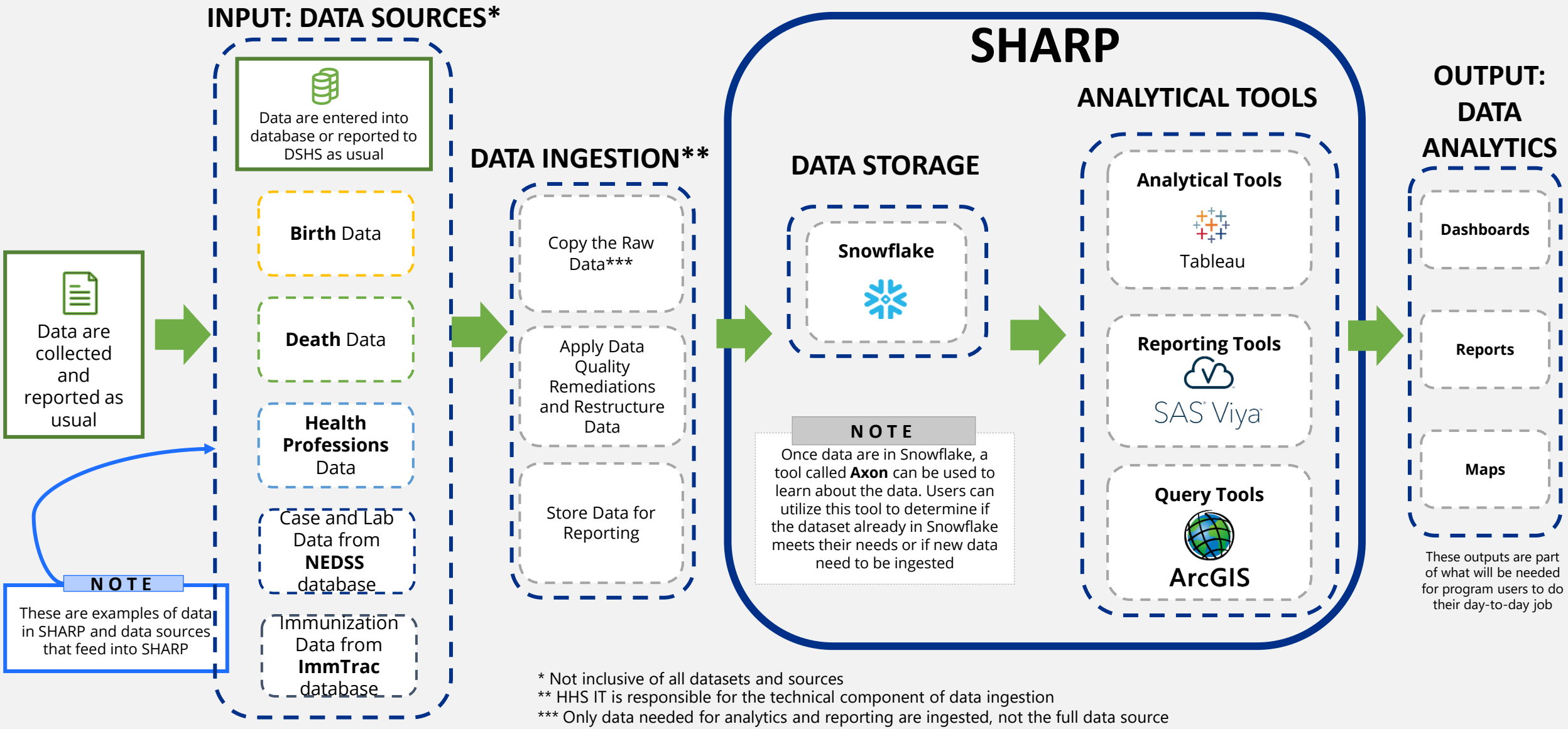
SHARP: Beyond COVID-19

- DSHS realized the benefit of expanded data analytics capabilities
- Technology expanded to include more public health data and was renamed State Health Analytics & Reporting Platform (SHARP)

KEY BENEFITS

Reduced Manual Data Processing Ability to automate many current data validation rules and prepare data for reporting	**Actionable Insights** Quickly and efficiently analyze public health trends with enhanced dashboards, reports, and maps	**Trusted Data & Governance** Establish who is authorized to access data, how it should be used, and which legal considerations and established processes apply
Increased Responsiveness Field program requests for data or reports more quickly given centralized data repository	**Data Sharing** Securely share data with Local Health Entities and Public Health Regions and only allow them to access data relevant to their jurisdiction	**Expands with Agency Needs** Add new approved sources of data, as needed; no technological constraints on the amount of data that can be ingested

Understanding SHARP



* Not inclusive of all datasets and sources
** HHS IT is responsible for the technical component of data ingestion
*** Only data needed for analytics and reporting are ingested, not the full data source

SHARP Components & Tools

Data Storage Tool

ACCESS REQUEST PROCESS
The access request process for tools such as Snowflake can be found in the User Guide!

SNOWFLAKE

Snowflake is the **cloud-based data warehouse** where all cleansed and restructured SHARP data are stored once it's ingested. A data warehouse is a type of data management system that is designed to enable and support business intelligence activities such as analytics.

Example of Usage: *Data custodian queries Snowflake to view a table of cleansed data in a data set*

DESCRIPTION:

Data are stored in Snowflake as opposed to a network drive or on-premise server, some of the norms pre-SHARP.

The data can be analyzed using a variety of tools, such as: SAS, Python, R, ArcGIS, Excel, and Tableau.

The data can only be accessed if a user has the right permissions.

ROLES THAT WOULD UTILIZE THIS TOOL:

- HHS IT Analytics Support
- Data Pipeline Team
- IT Data Custodians
- Data Stewards
- Data Analysts

Data Governance Tools

AXON

Axon is the **primary way to see what data sets are available in SHARP,** and to view data definitions, dependencies, lineage, data governance standards, and stakeholders associated with a particular data set.

Example of Usage: *Data steward views and updates glossaries for a data source to explain attributes, similarities across data sets, etc.*

DESCRIPTION:

Axon is a data governance and knowledge management tool. It houses metadata for all data involved in SHARP.

Metadata is descriptive statistics and characteristics that explain the data and how it can be used.

ROLES THAT WOULD UTILIZE THIS TOOL:

- Data Stewards
- Data Owners
- Data Architects
- Program Staff
- IT Admin

DID YOU KNOW?

There are two other tools, the **Enterprise Data Catalog** (EDC) and the **Integrated Data Quality** (IDQ), within the Informatica suite **that connect to Axon** and provide key data governance information.

Both are **configured and managed by IT** with support from the data stewards and owners. Most DSHS program staff will not directly access those tools, but instead, **see the relevant information in Axon.**

SHARP's Impact on Public Health Data Analysis

Benefits of SHARP

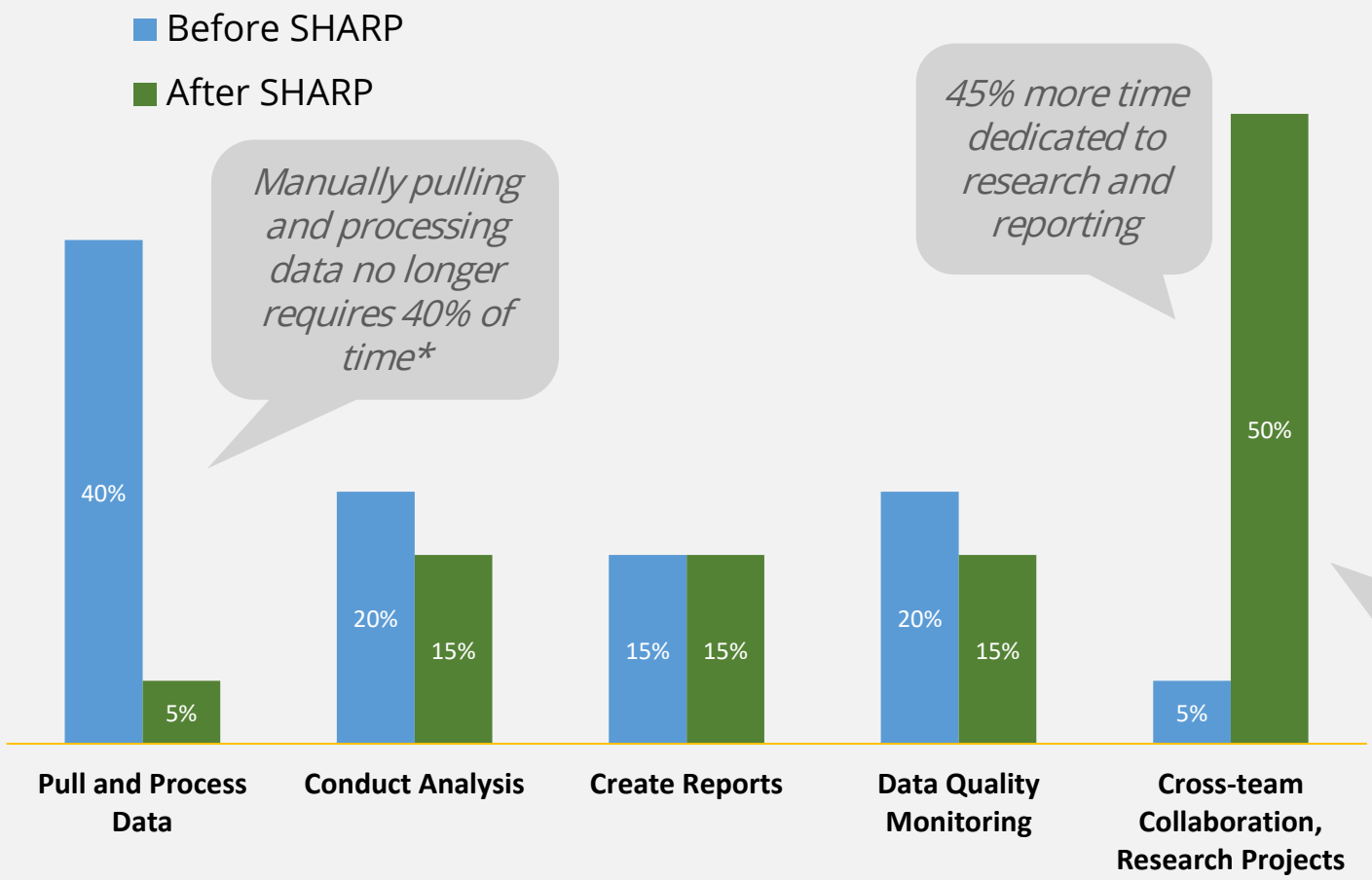
SHARP benefits a full spectrum of users, from DSHS staff to authorized users at Local Health Entities (LHEs), as it takes care of the manual data processing and data quality checks and prepares data for reporting so users can more efficiently analyze and deliver insights

	PRE-SHARP	CHANGE	POST-SHARP
Data Usability	• Data are **not uniform** • Data come from multiple sources and are **not easily accessible** for reporting • Data require **manual processing** and data quality checks	• Data are housed in a **central location** • Data are pulled and **processed automatically in regular intervals** • Data quality is performed by the system, with up-to-date **quality reports available**	• **Greater reporting metrics** and analysis capabilities • **Faster turn-around** for ad-hoc reports • Tools enable users to **create their own dashboards** and reports or use **pre-built ones**
Security and Confidentiality	• **Ad hoc** security efforts with on-premise servers and **manual approvals**	• Data are **monitored** by security systems and mechanisms • **Legal statutes** are applied by various data governance efforts	• Data are **less vulnerable** to attacks or leaks • Access is **easier to track** and control • Mechanisms will **prevent unauthorized changes** to the data
Data Governance	• Varied approaches based on program • Minimal, **inconsistent** documentation • **Reliance on institutional knowledge**	• **Central body** to provide oversight and guidance on data governance matters • Data governance **processes built into SHARP adoption** for programs	• Data are **accurate, reliable, compliant, and secure** • Information about data (e.g., definitions, documentation, etc.) in SHARP is **available and accessible**

Day in the life: Analyst role before and after SHARP

Before SHARP, data analysts may spend 40%+ of their workday pulling and processing data.* SHARP automates these tasks to allow data analysts to invest more on research, reporting, and collaboration with other teams within their program.

Data Analyst Average Time Spent before SHARP vs with SHARP



OBSERVATIONS

- The time originally spent pulling and processing data can now be used for research and reporting.
- Although the same amount of time may be spent on creating reports, data analytics tools like Tableau enable data analysts to create more reports at a higher level of quality and detail.

*time spent on manual data processes vary by program

Use Case: Standard Reporting – Data Analyst

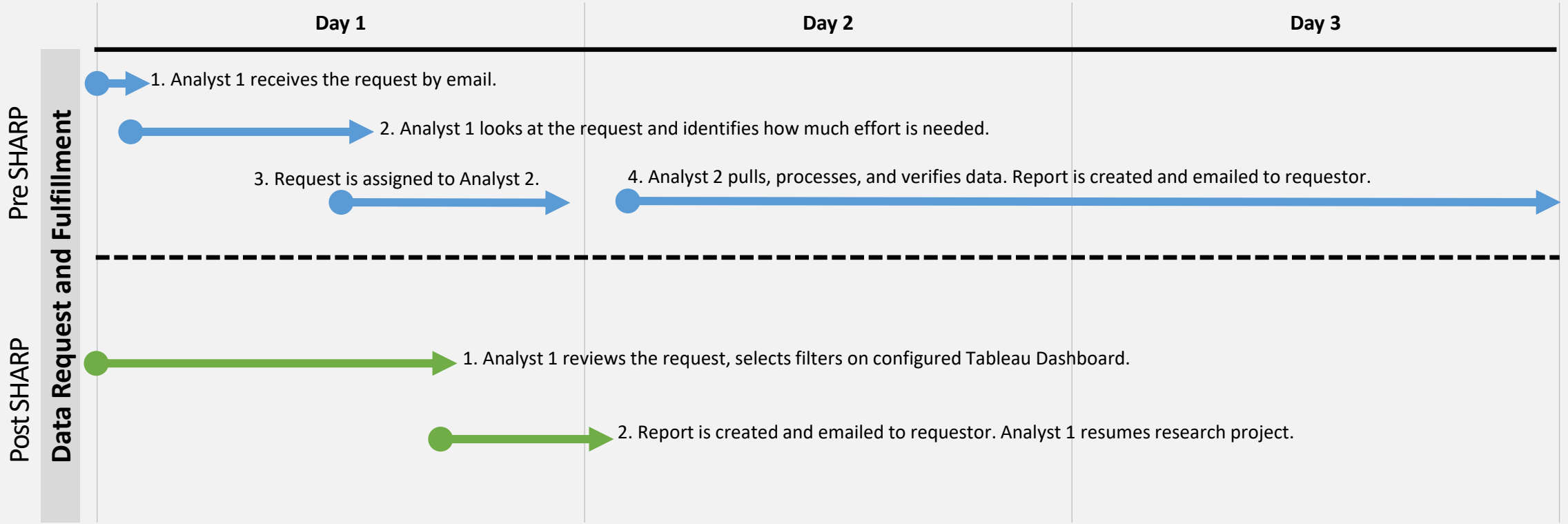
Standard report request example: Drug-related deaths for a specific county for 2016-2020 by year*

Before SHARP

Prior to SHARP, the data request & fulfillment was done by email and an analyst would run time-intensive DQ checks, validation, and finalization. After this manual process was completed the reports were sent via email.

With SHARP

After SHARP, reports are created utilizing Tableau and emailed to the requestor, saving time through the automated process.



*Hypothetical scenario. Time taken to complete request in example may be different than the actual time

Conclusions

- Many ongoing interoperability enhancement and data modernization efforts for public health data underway at DSHS.
- DSHS implementing more automated functionality in NEDSS to support improved time efficiency and optimization for public health staff.
- Epidemiology staff utilizing new data platform SHARP to streamline data analytics. Improved analytics allow staff to focus on other more pressing issues.
- Key collaboration between health care and public health have a shared goal to reduce manual burdens, improve patient outcomes, and reduce the transmission of infectious diseases.
- Continue to move forward with close partnerships and collaborations developed to further refine tools and resources.


THE
Future
IS Bright

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