eCR Now

April 2020

Version 3

Electronic case reporting (eCR)

The automated identification of reportable health events in electronic health records and their transmission to state and local public health authorities for review and action.

eCR Now

- Electronic case reporting (eCR) is a critical tool for COVID-19 and other outbreak management needs

- Case reporting to Public Health Agencies (PHAs) provides data to support:

  1) reporting and situational awareness, 2) case management, 3) contact tracing, 4) critical demographic and clinical data for lab results, and 5) coordinating isolation and other response measures

- eCR is operating well now for COVID-19, but is only in a limited number of clinical sites that have an EHR with eCR capabilities.

- We need more implementations of eCR Now

eCR Now Elements

1. Cohort-based COVID-19 rapid eCR implementations for provider sites that use eCR enabled EHRs

2. An eCR Now FHIR app that can be immediately implemented to automate COVID-19 eCR in otherwise not enabled EHRs

3. Extension of the existing eHealth Exchange policy framework through a developing Carequality eCR implementation guide

eCR Now – Element 1

- Cohort based onboarding
  - Epic has streamlined implementation to just 3 days
  - Initial California cohort in process

- FHIR trigger code distribution service (eRSD)
  - Over 60,000 case reports have been triggered from just four eCR health systems

- Confirmed cases delivered to Public Health Agencies for surveillance – <u>with no manual entry</u> or further burden on healthcare providers or public health

- Electronic case reports faster and more complete than manual reporting or ELR for outbreak management

eCR Now FHIR App – Element 2

- FHIR app that can be rapidly implemented to automate COVID-19 eCR in otherwise non-enabled EHRs

- Connect COVID-19 electronic case reporting to existing infrastructure to confirm cases and route to appropriate public health surveillance systems

- Immediately implement in as many EHRs as possible without waiting for EHR software releases

- Have been working on a full eCR, subscription-based, backend services app for the longer term

- Initial version of eCR Now app for COVID-19 and source code available May 1

eCR Now Needs

- Elevate awareness of eCR Now and app

- Encourage EHR Vendor implementation

- Create major splash at May Connectathon
  - Have spoken to major EHRs, reaching out to EHRA
  - Need plenary-like opportunities and other industry communications

- Focus on Public Health HL7 activities that are in progress

Appendix

FHIR App Specifications for Installed EHRs

FHIR app that can be rapidly implemented for providers (and indirectly PHAs) based on these specifications:

- Argonaut 1.0.0 (R2) based on FHIR Version 1.0.2

- US Core 2.0.0 (STU 2) based on FHIR Version 3.0.1

- HL7 FHIR DSTU2 and STU3

- ONC 2015 edition

- SMART on FHIR App Launch security

- HL7 CDA Electronic Initial Case Report (eICR) version 1.1

- HL7 CDA Reportability Response 1.0

- APHL AIMS / CSTE RCKMS shared service

- Direct or XDR transport - with the overlay of the eHealth Exchange (and Carequality) legal frameworks

Existing Infrastructure
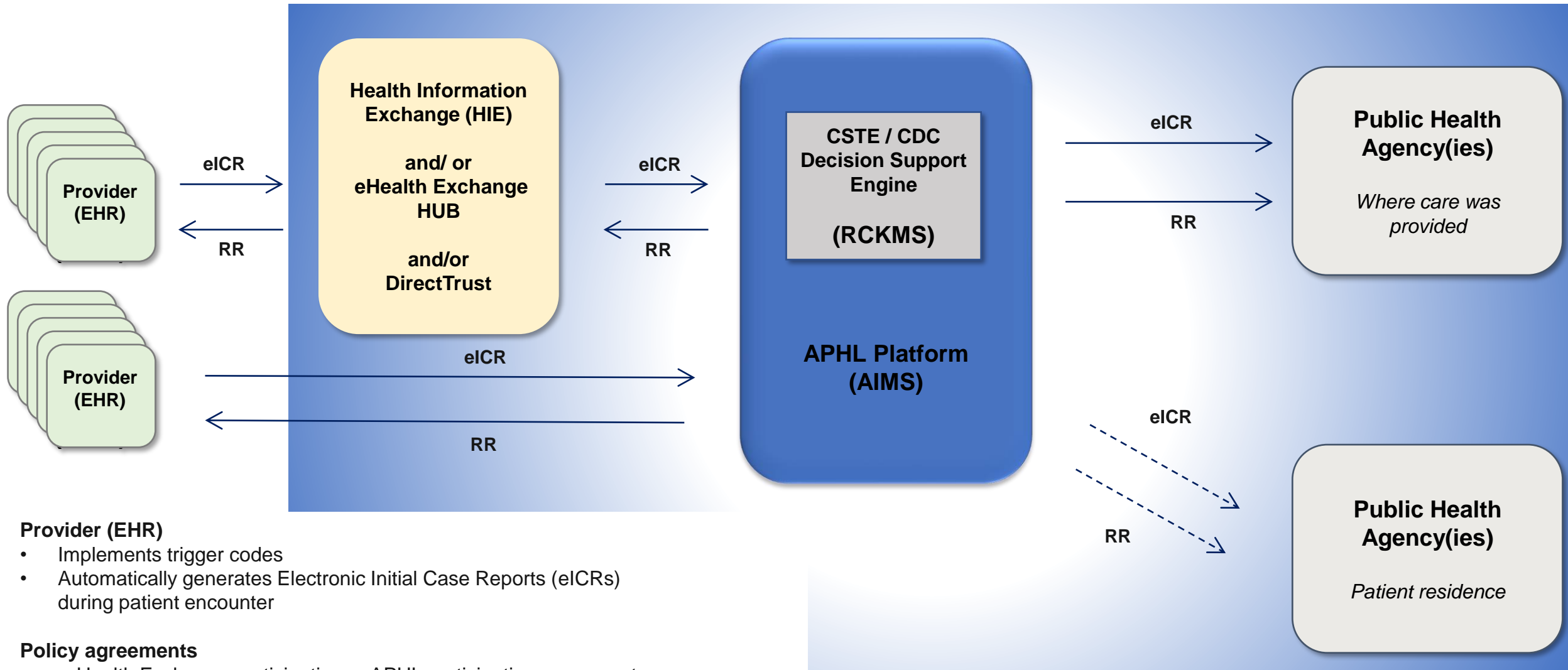
Provider (EHR)
- Implements trigger codes
- Automatically generates Electronic Initial Case Reports (eICRs) during patient encounter
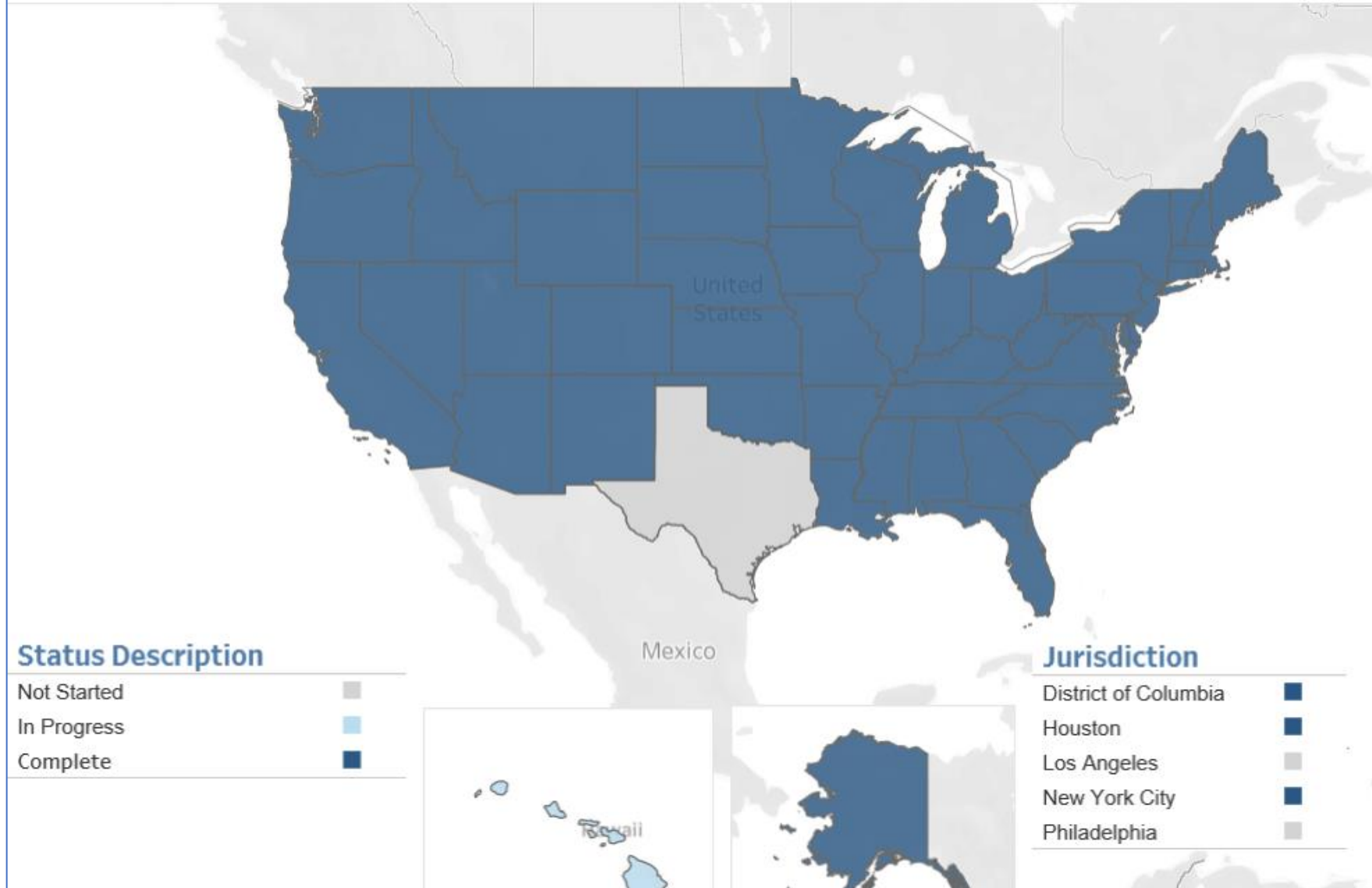
Policy agreements
- eHealth Exchange participation or APHL participation agreement

HL7 Standards
- Electronic Initial Case Report (eICR) CDA v1.1
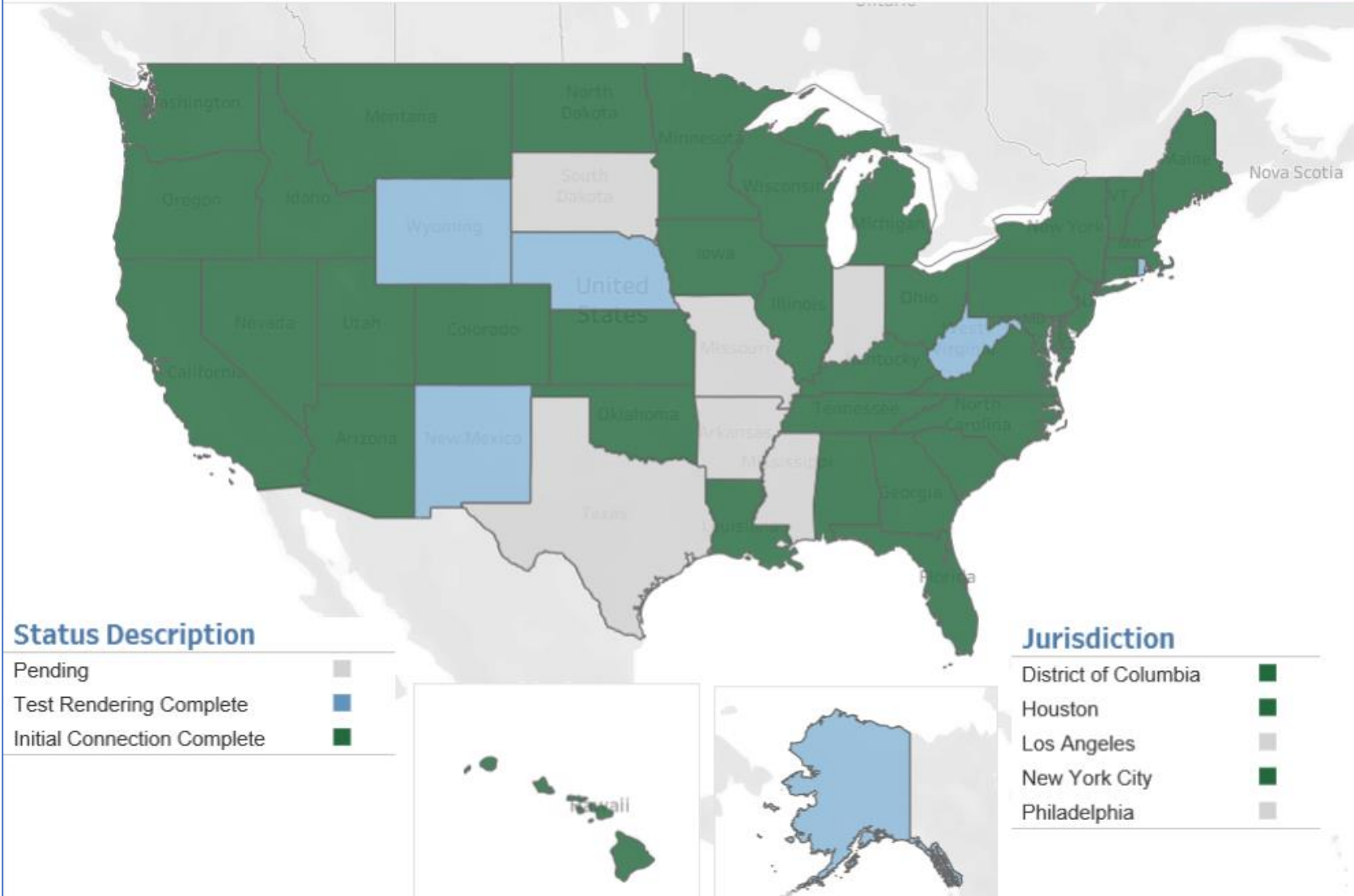- Reportability Response (RR) CDA v1.0

Coronavirus Authoring Status

Updated as of 04/13/2020

Status Description

Not Started	
In Progress	
Complete	

Jurisdiction

|	
District of Columbia	
Houston	
Los Angeles	
New York City	
Philadelphia	

Electronic Case Reporting (eCR)

- Case reporting is required by law in every state
- With full eCR implemenation, paper forms for case reporting will be eliminated
- Automated - no burden to either providers of care or to public health personnel during the COVID-19 events
- eCR automates electronic case reporting to PHAs though established pathways so that PHAs can use the data in their surveillance systems

Electronic Case Reporting (eCR)

- eCR was in Meaningful Use Stage 3 and is in Promoting Interoperability as a "menu choice" weak incentive

- While many providers have requested eCR, only a small number of EHR vendors have technical implementations available for them

- Without EHR implementations the public health agencies cannot get these critical case data

- eCR has never had funding as a nationwide initiative as previous public health programs like syndromic, immunizations, and electronic laboratory reporting have

- State laws are not enforced by federal agencies

Electronic Case Reporting (eCR) – High-Level
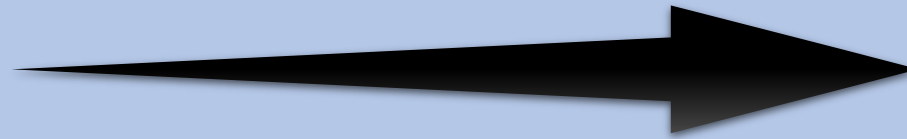
Provider EHR

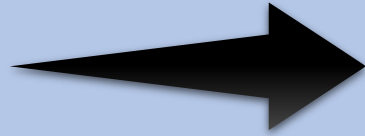**State / Local Public Health Agency (ies)**
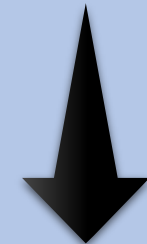
CDC

Context
- Provider EHR implements eCR
- Data recorded in the process of care match a trigger and send a report

Outcomes
- No provider workflow disruption – eCR is automatic and behind the scenes
- When fully implemented, eliminates paper forms
- Provider gets information back from public health about the patient and the condition

Electronic Case Reporting (eCR) – High Level
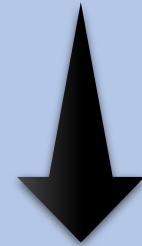
Provider EHR

State / Local Public Health Agency (ies)

CDC

Context
- Only legally reportable conditions are disclosed to PHA
- Data flows into PHA surveillance system for management

Outcomes

Supports:
- Reporting to CDC
- Case management
- Situational awareness
- Contact tracing
- Connecting lab results
- Coordinating isolation and other response actions

Electronic Case Reporting (eCR) - Details

Provider EHR

CSTE / CDC RCKMS Decision Support Engine

On APHL AIMS Shared Services Platform

State / Local Public Health Agency (ies)

CDC

Details
- To set-up reporting, trigger codes and other specifications are distributed to EHRs / clinical care via the Electronic Reporting and Surveillance Distribution (eRSD) system
- Both routine and emergent distributions are supported

Electronic Case Reporting (eCR) - Details

Provider EHR

CSTE / CDC RCKMS Decision Support Engine

On APHL AIMS Shared Services Platform

State / Local Public Health Agency (ies)

CDC

Details
- HL7 standard Electronic Initial Case Report (eICR)
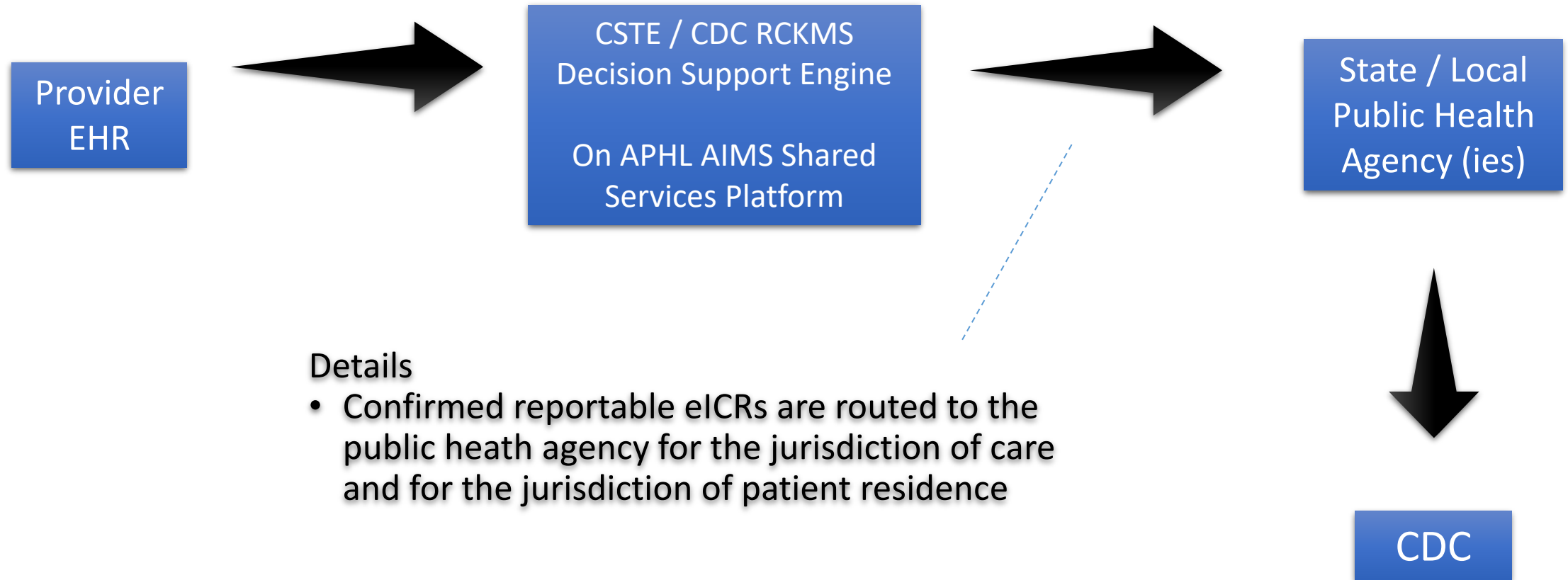- Transmitted over XDR or Direct
- Under the legal umbrella of eHealth Exchange, soon Carequality, or APHL participation agreement
- Eventually eHealth Exchange transactions will pass through eHealth Exchange hub
- Health Information Exchanges are very helpful and supported

Electronic Case Reporting (eCR) - Details

Provider EHR

CSTE / CDC RCKMS Decision Support Engine

On APHL AIMS Shared Services Platform

State / Local Public Health Agency (ies)

Details
- Confirmed reportable eICRs are routed to the public heath agency for the jurisdiction of care and for the jurisdiction of patient residence

CDC

Electronic Case Reporting (eCR) - Details

Provider EHR

CSTE / CDC RCKMS Decision Support Engine

On APHL AIMS Shared Services Platform

State / Local Public Health Agency (ies)

CDC

Details
- One HL7 standard Reportability Response is sent back for each eICR
- It contains technical acknowledgment information and information from public health about the patient and the condition