



# Electronic Case Reporting (eCR)

*The automated generation and transmission of case reports from the electronic health record (EHR) to public health agencies for review and action*

## **Electronic Case Reporting (eCR)**

# Value of Electronic Case Reporting (eCR)

- More complete, accurate data in real time for action
- Early detection of cases allows...
  - earlier intervention
  - diminished transmission of disease
- Improves detection of outbreaks
- Responds directly to local and state partner needs
- Diminishes burden on healthcare provider to report
- Directly links health care to population health

# eCR is the future of surveillance

- Get started
- Our priority
  - Obtaining electronically the initial message reporting potential cases
  - Scalable eCR implementation
  - Tangible, incremental success

Healthcare Provider	Electronic Health Record	Decision Support Intermediary	Public Health
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Record encounter in EHR

**Trigger Codes**

Generate initial case report

**Reportable Condition Knowledge Management Service (RCKMS)**

Determine Reportability

**Rules**

Match?

Yes

Reportable?

Yes/ Maybe

Route initial case report

Jurisdiction Receives Initial Case report

Route to Reporter

Receive Notice of Reportability

URL

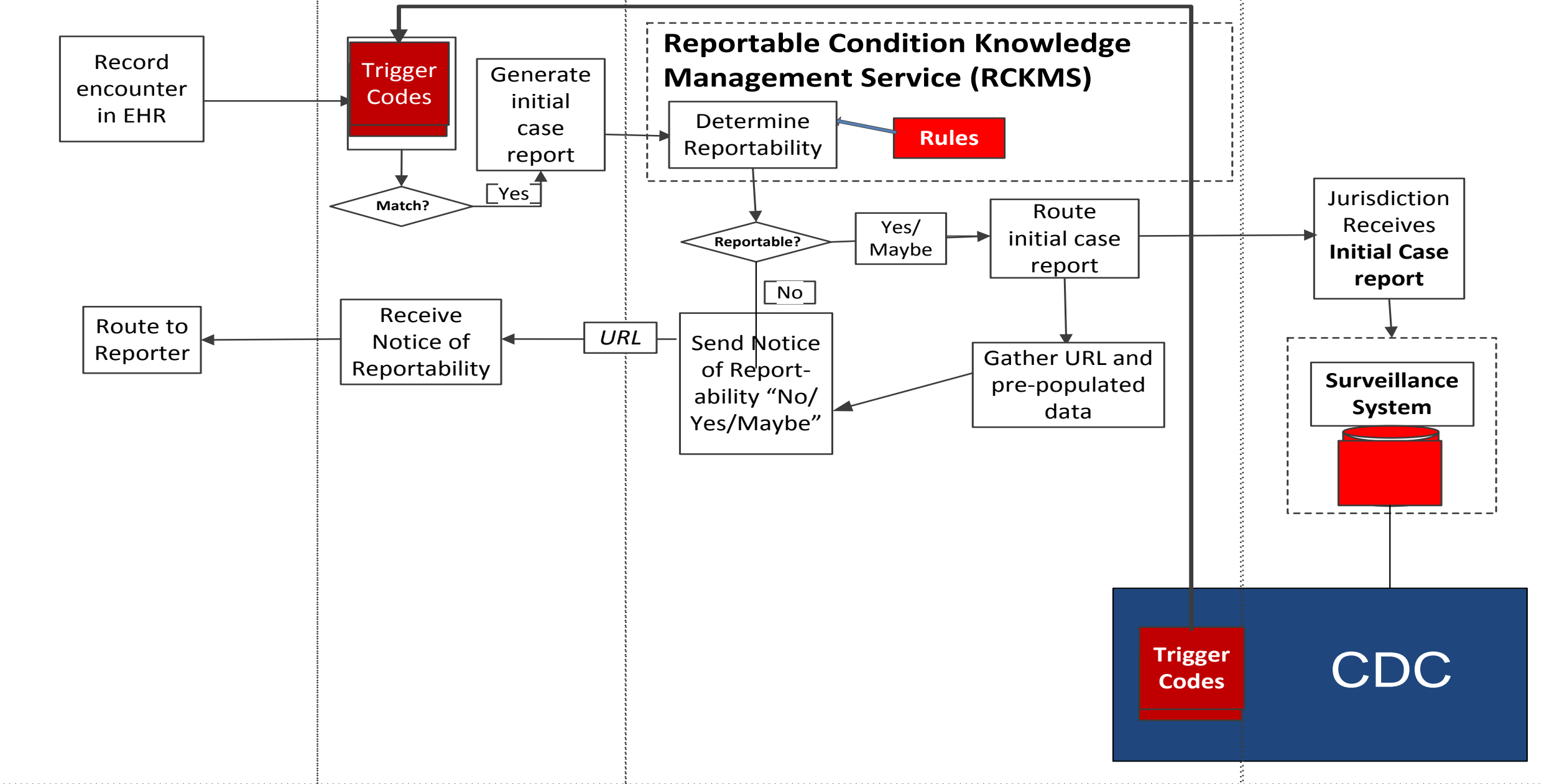
Send Notice of Reportability "No/ Yes/Maybe"

Gather URL and pre-populated data

Surveillance System



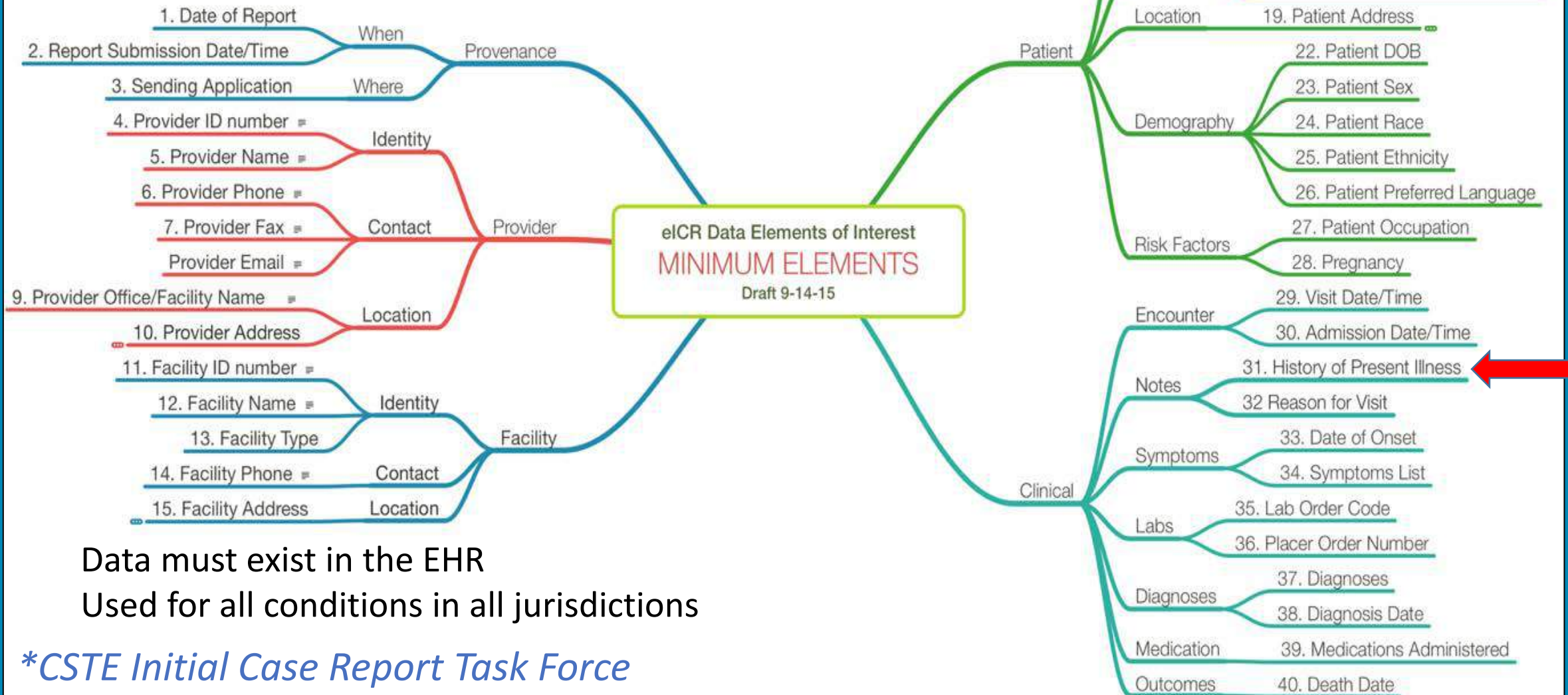
**Trigger Codes** **CDC**



# Trigger Codes

- Logical Observation Identifiers Names and Codes (LOINC)
- Systematized Nomenclature of Medicine (SNOMED)
- International Disease Classification – 10 (ICD-10)
  
- Initial conditions to be evaluated with eCR
  - Chlamydia, Gonorrhea, Pertussis, Salmonella, Zika virus

# Initial Message Contents\*



Data must exist in the EHR  
Used for all conditions in all jurisdictions

\*CSTE Initial Case Report Task Force



# Reportable Conditions Knowledge Management System (RCKMS)

- Reporting criteria differ across state and local jurisdictions
- RCKMS is a tool that provides standardized criteria, logic and value sets for reportable conditions that can be customized by jurisdictions
- Sits on intermediary platform(s) (e.g., APHL's AIMS Platform)
- Receives triggered reports from the EHR
- Assesses reports for their potential to be a "case"
- Reports potential "cases" to jurisdiction(s)

## eCR is ELR on steroids

- More complete and accurate information from the EHR (patient address, telephone, pregnancy, HPI.....)
- Potential for direct integration of data
- Electronic feedback to healthcare
- Continued need for de-duplication (expected)

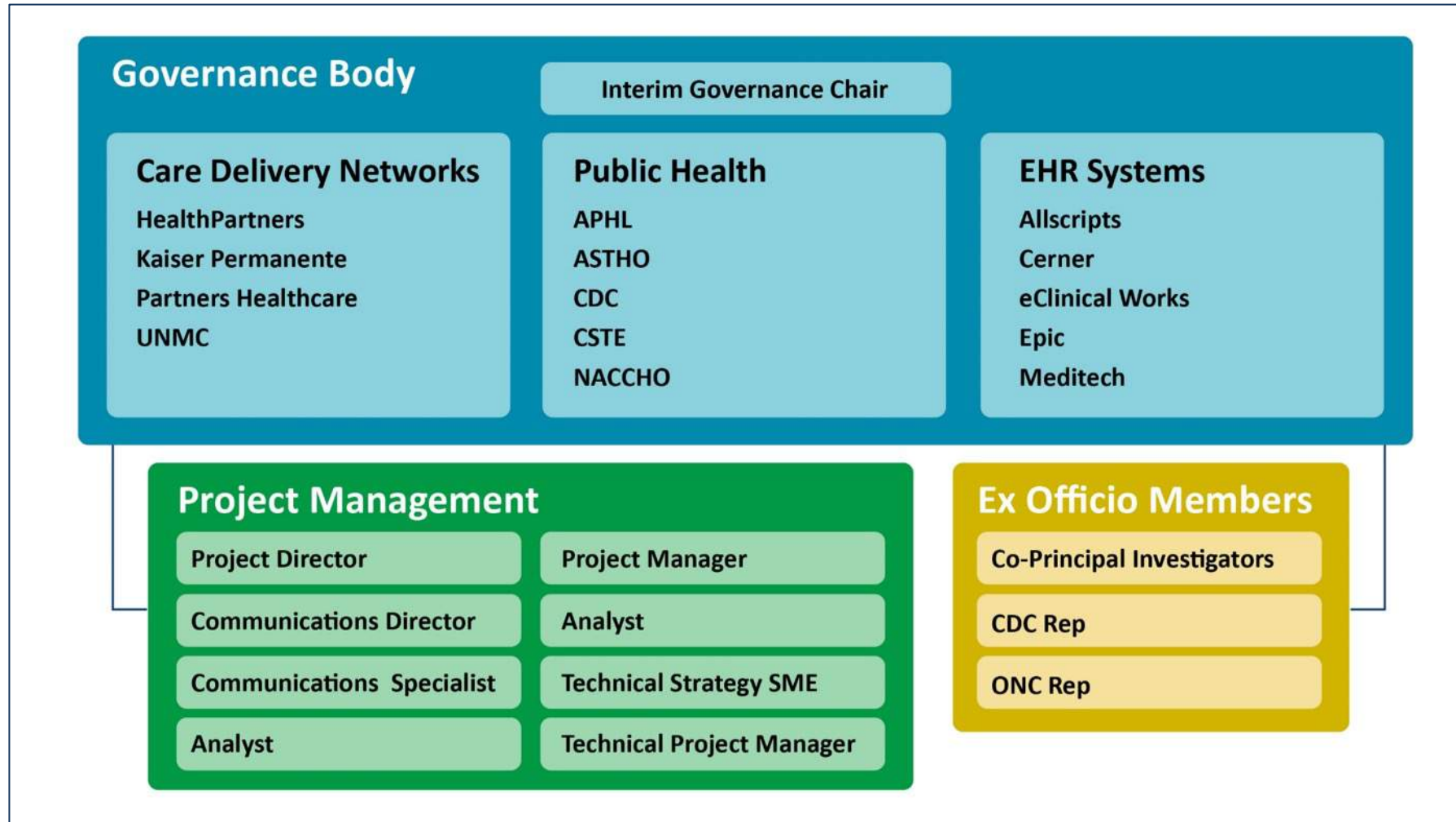
# Digital Bridge

- “Public health is like a thousand gnats. They consistently pester you, but they never help you do anything.” ---  
Prominent EHR vendor
- Positive meetings at HIMSS with EPIC, Cerner, AllScripts, eClinicalWorks and Meditech
- RWJF convened meeting to discuss a vision for eCR, create shared governance and determine the initial steps for eCR implementation

# What is the Digital Bridge?

- Goal: a consistent, nationwide, and sustainable approach to using health care's EHR data to improve public health surveillance
- Partnership between public health, health care delivery systems, and health IT (EHR) vendors
- Governance funded by the Robert Wood Johnson Foundation
- Initial focus: electronic case reporting (eCR)

# Digital Bridge Governance Body Members



# Initial Objective: Electronic Case Reporting (eCR)

	Activities	Time
Phase 1	Convene initial meeting; consensus on goal, objective	June 2016 [Completed]
Phase 2	Define requirements and technical architecture for multi-jurisdictional eCR approach	September 2016 – January 2017
Phase 3	eCR implementations	February 2017 – January 2018

*After Phase 3, intent is to address other topics (e.g., chronic diseases, injury).*

# Site Participation

Public Health Agency	Health Care Provider	EHR Vendor
California	UC Davis	Epic
Houston	Houston Methodist	Epic
Kansas	Lawrence Memorial Hospital	Cerner
Massachusetts	Partners HealthCare	Epic
Michigan	McLaren Health Center	NetSmart (HIE-MiHIN)
New York City	Institute of Family Health	Epic
Utah	Intermountain Healthcare	Cerner

# Evolution and Improvement

- Learn from initial implementations
  - Participating sites will participate in eCR evaluations.
- Adapt accordingly
- Continued attention to legal requirements and sustainability
- Broaden use cases (e.g. longitudinal data)
  - Unique identifier(s)
  - Reporting Mandates or Business Associate Agreements
- Any public health agency interested in eCR can use the Digital Bridge approach



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