

# Quality, Research and Public Health (QRPH) Domain

## HIMSS 2009 Interoperability Showcase

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# Domain Description

- **Quality Reporting for pay-for-performance, public reporting, and accreditation purposes**
- **Public Health Case Reporting and Immunization**
- **Biosurveillance**
- **Case Reporting to CDC with EMR Alert**
- **Cancer Registry**
- **Patient Safety and Drug Safety Reporting**

- **Quality** – Repurposing of data
- **Clinical Research** – Secondary use of data
- **Public Health** – Population base surveillance
- Focuses on the dataflow cycle of queries for data and selection of population cohorts from within the clinical record.
- Incorporation of output from the query specification within the clinical system dataflow to enable clinical decision support.
- Defining profiles for adverse event reporting especially with reference to medication-related adverse outcomes.

# 2008 – 2009 Profile Development

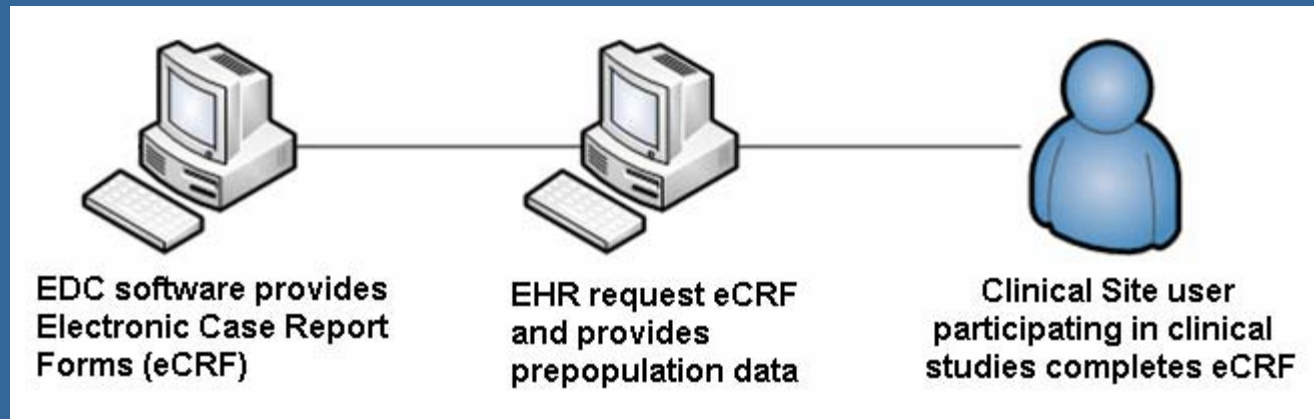
## Profiles:

Clinical Research Data Capture (CRD)  
Drug Safety Content (DSC)

## White Papers:

Performance Measurement Data Element  
Structured for EHR Extraction

# Clinical Research Data Capture (CRD)

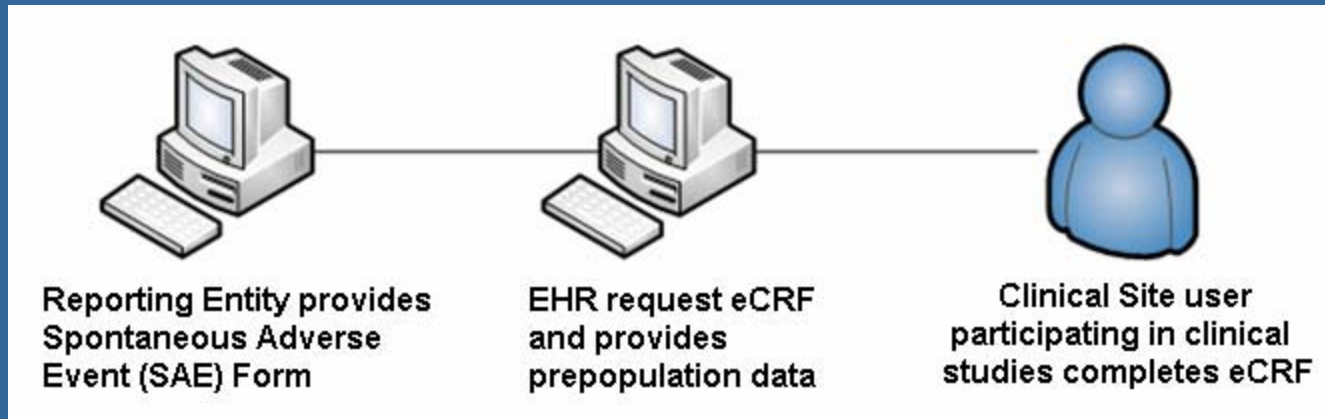


CRD describes the content and format to be used within the Prepopulation Data transaction described within the Retrieve Form for Data Capture (RFD) Integration Profile.

Reference Implementation:  
CCD > ODM/CDASH

Eli Lilly and Genzyme Demonstrations

# Drug Safety Content (DSC)



**DSC describes the Spontaneous Event Reporting content and format to be used for within the Prepopulation Data transaction described within the Retrieve Form for Data Capture (RFD) Integration Profile.**

**Reference Implementation:  
CCD > ICH E2B(R3)**

**Pfizer Demonstration**

# 2009 – 2010 Profile Development

## Profiles:

Retrieve Protocol for Execution (RPE)

Chronic Disease Management Data Exchange (CDM)

Maternal and Child Health (MCH)

Performance Quality Report (PQR)

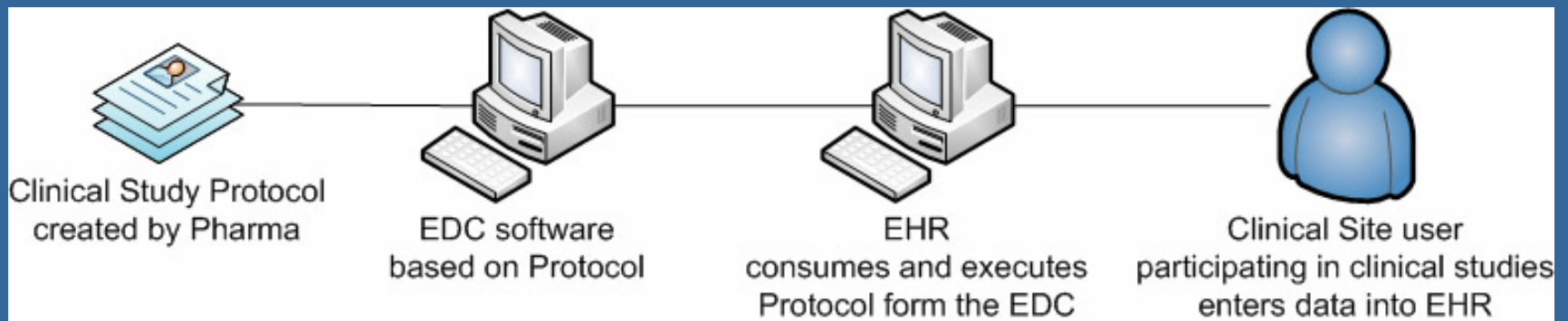
## White Papers:

Diabetes Care Management (DCM)

New-born Screening (NBS)

Pseudonymization

# Retrieve Protocol for Execution (RPE)

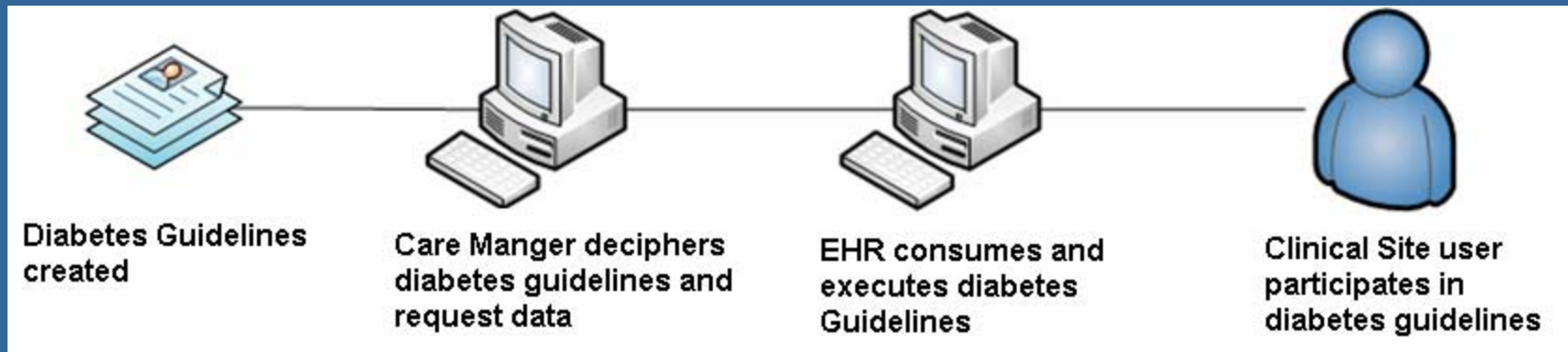


RPE provides an automated mechanism for EHRs to retrieve a complex set of clinical research instructions (or a protocol) from an formally expressed research protocol to execute within the EHR.

Three actors participate in automating workflow:

1. Protocol Definition Manager
2. Protocol State Manager
3. Protocol Executor

# Diabetes Care Management (DCM)



The DCM Whitepaper proposes to develop an approach for generating a common content for information exchanges across clinical and public health information systems using the example of diabetes care. Based on the clinical guidelines in diabetes care management and diabetes population surveillance, we will identify common queries and specify responses to these queries to distill common content for information exchange in clinical care, quality reporting and population-based surveillance.

# Chronic Disease Management (CDM)

- **Chronic Disease Management Data Exchange**
  - Data exchange among providers improves patient care. For example, pediatric asthma is treated by a pediatrician, pulmonologist, and allergist . When all providers have access to the information about the management of the chronic ailment, they can better coordinate care
  - Gathering chronic disease management information by public health registries is improved by a common format (syntax) and terminology. The semantic interoperability also allows comparisons among registries, which is important for measuring quality across regional and national entities
- **Scope**
  - Describes the interaction between a data source and a data consumer
  - Covers both unsolicited updates and query transactions

# New Born Screening (NBS)

## New-born Screening

- Bloodspot screening (NBS) - metabolic, pulmonary genetic and hematologic disorders identified by laboratory testing
- Hearing screening - NHS or Early Hearing Detection and Intervention – EHDI

## Scope

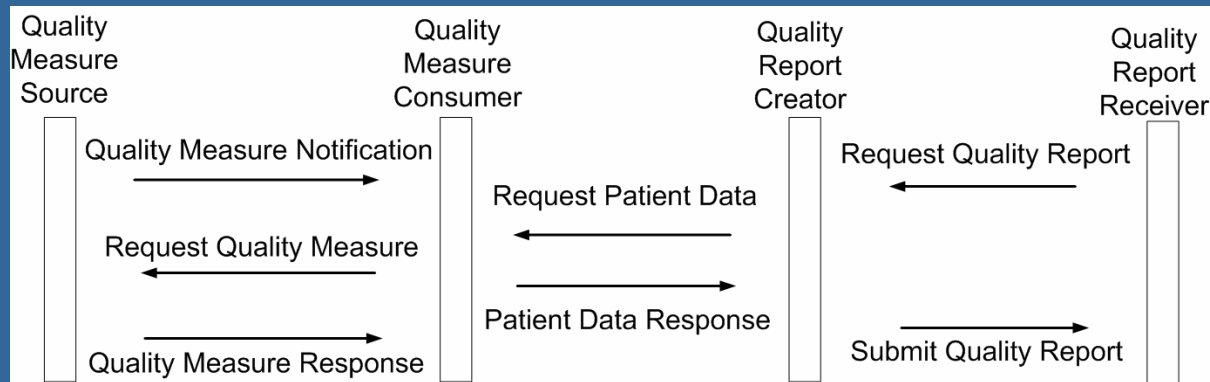
- Order new-born screening tests
- Communicate results to all appropriate parties, including Public Health organizations

# Maternal Child Health (MCH)

## Capability to capture health indicators directly from EHR as established by national programs and agencies

- Collection on established and standardized early childhood health indicators enabling federal multicentric surveys
- Reports child's health state at an epidemiological relevant period of childhood
- Reports mother and child's social environment and can trigger an intervention from social services if deemed necessary
- Anonymized information is aggregated and sent to Public Health and Clinical Research institutes in order to determine funding and/or actions needed.

# Performance Quality Report (PQR)



To obtain clinical information directly from the process of routine care this profile will:

- Incorporate representation of measure specifications in a standard format such that mapping of data existing in clinical documents (CCD, Medical Summary, Procedure Notes) is possible
- Create a performance report that can be sent to a measure analysis organization in a standard format to facilitate reporting from an EMR / EHR

# Pseudonymization

- In order to send data necessary for certain instances of these use cases (clinical research, public health, patient safety and quality accreditation organisms) some data needs to be pseudonymized or anonymized
  - Data protected by professional discretion in a primary setting is sent to a third party for important analysis
  - The utilisation of anonymisation/pseudonymisation means is most of the time needed for secondary use/repurposing/population health bio-surveillance.
  - Different mechanism of protection are in place.



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