

NPCR-AERRO'S PARTNERSHIP WITH IHE: ENSURING CANCER'S CONNECTIVITY WITH THE EMR/EHR

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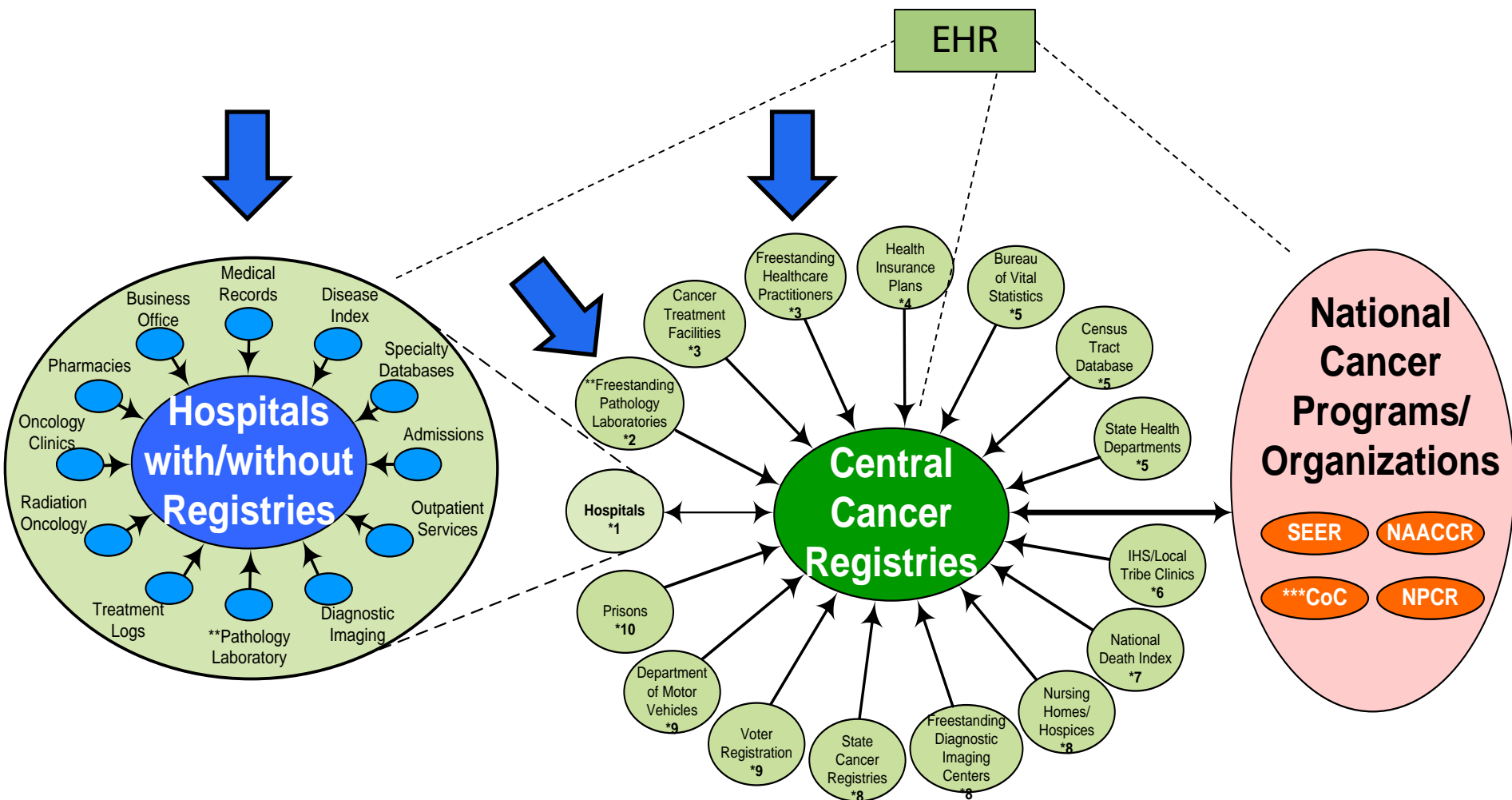
NAACCR Annual Conference

June 24, 2010



NPCR – AERRO Scope Diagram

Version 1.0
Revised 12-11-2008



NPCR–AERRO includes cancer data sources and the lines drawn to the Central Cancer Registries and the National Cancer Programs

*Numbers rank the data sources on the quality of useful data available on a scale of 1 being the most useful and 10 being the least useful.

**Pathology Laboratories–Freestanding and Hospital–send data to both the Hospital Registries and the Central Cancer Registries

***CoC receives data directly from hospitals.

AERRO and e-Health Initiatives

- ❑ **Collaborating with existing initiatives is the most efficient way to connect the cancer surveillance workspace to the National Health IT efforts.**
 - Healthcare Information Technology Standards Panel (HITSP)
 - Health Level 7 (HL7)
 - Integrating the Healthcare Enterprise (IHE)
 - Certification Commission for Healthcare Information Technology (CCHIT)
 - Nationwide Health Information Network (NHIN)

HITSP

- ❑ **Partnership between public and private sectors**
- ❑ **Common goal of developing a widely accepted and useful set of standards enabling interoperability among health care software applications at the local, regional, and national health information network in the United States**
- ❑ **Key points for the purposes of this presentation :**
 - Declaration of HL7 as a standard
 - Both 2.x and CDA
 - Public Health Case Reporting

Integrating the Healthcare Enterprise (IHE)

- ❑ An initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information**
- ❑ Promotes the coordinated use of established standards (e.g., HL7, DICOM)**
- ❑ Address specific clinical need in support of optimal patient care**
- ❑ IHE organizes demonstrations of IHE-compliant systems working in real-world clinical scenarios at medical meetings and other venues**

Integrating the Healthcare Enterprise (IHE)

IHE profiles support health information networks worldwide, and have been accepted as requirements by the U.S. Secretary of Health and Human Services for federal procurement of healthcare IT systems

How IHE works

- ❑ **Users of healthcare information identify a need for information exchange and define the use case**
- ❑ **Technical and subject matter experts develop the detailed specifications, called profiles**
- ❑ **The profile incorporates many health information technology standards**
 - DICOM
 - HL7
- ❑ **The profiles are vetted by community stakeholders**

How IHE Works

- ❑ **Profiles are international; Country specific constraints are contained in appendices**
- ❑ **Once published, software vendors and health care professionals collaborate to implement a profile into their application**
- ❑ **IHE is organized into Domains**
 - Quality Research and Public Health (QRPH)
 - Anatomic Pathology (AP)
 - IT Infrastructure (ITI)

IHE Content Profile

- ❑ **A sharable information component that can be exchanged...**
 - within an HIE or RHIO (XDS)
 - via Media or USB Device (XDM)
 - via Reliable Messages (XDR)
- ❑ **Document content using standards**
 - HL7 2.x
 - CDA Release 2.0: Medical Document
 - Community Standards (e.g. cancer)

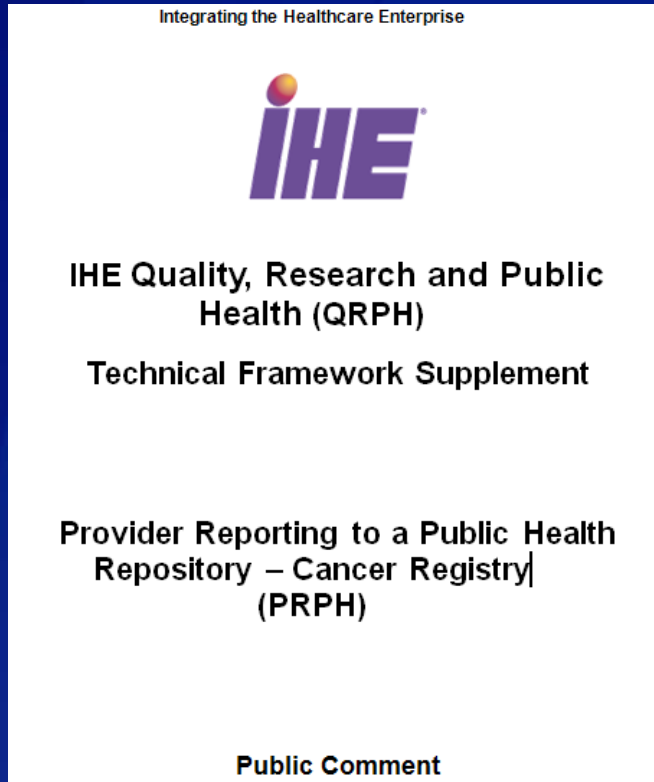
IHE- AP: Anatomic Pathology Reporting to a Public Health Repository - Cancer Registry

- ❑ Uniform method for data transmission**
- ❑ Facilitates standardized electronic reporting of anatomic pathology data in public health domain**
- ❑ The North American realm constraint is:**
 - *NAACCR Volume V: Pathology Laboratory Electronic Reporting, Version 3.0*
- ❑ Profile published in August 2009**
- ❑ Successfully tested in IHE Connectathon 2010**
- ❑ Demonstrated in IHE Showcase at HIMSS 2010**

IHE-QRPH: Provider Reporting to Public Health Repository - Cancer Registry

- ❑ Uniform method for data transmission**
- ❑ Facilitates standardized electronic reporting of cancer case data in public health domain**
- ❑ Content profile; identifies data elements to be included in cancer case reports from providers to central registries**
- ❑ Builds on work from the NPCR-AERRO Clinic Provider Office (CPO) Reporting Workgroup**

IHE Profile: Public Comment



- ❑ **Profile was published for public comment on June 6th**
 - Comment period through July 6th
 - Email was sent to NAACCR listserv, CPO workgroup, EHR/EMR vendors, and other interested parties
- ❑ **All comments will be vetted by IHE Quality, Research, and Public Health (QRPH) Committee and changes made as appropriate**
- ❑ **Final profile published in mid-August, 2010**



Anatomic Pathology Laboratory

IHE ARPH; HL7 2.5.1 ORU Message



Pathology Report indicates patient has cancer



State Public Health Agency

Pathology Report indicates patient has cancer



IHE ARPH; HL7 2.5.1 ORU Message



Clinic/Physician Office (CPO)

IHE RFD, DSC; HITSP TP50, C76, T66

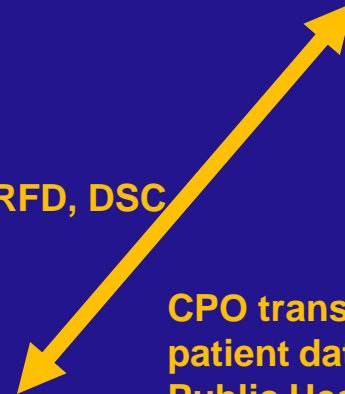
Patient presents with symptoms and cancer is diagnosed



Infrastructure

IHE RFD, DSC, SVS; HITSP TP50, C76, T66 Security, Form Manager, Form Filler, Form Receiver, Form Archiver

IHE RFD, DSC



CPO transmits patient data to Public Health Cancer Registry



Decision Support Tool

Public Health Cancer Registry System

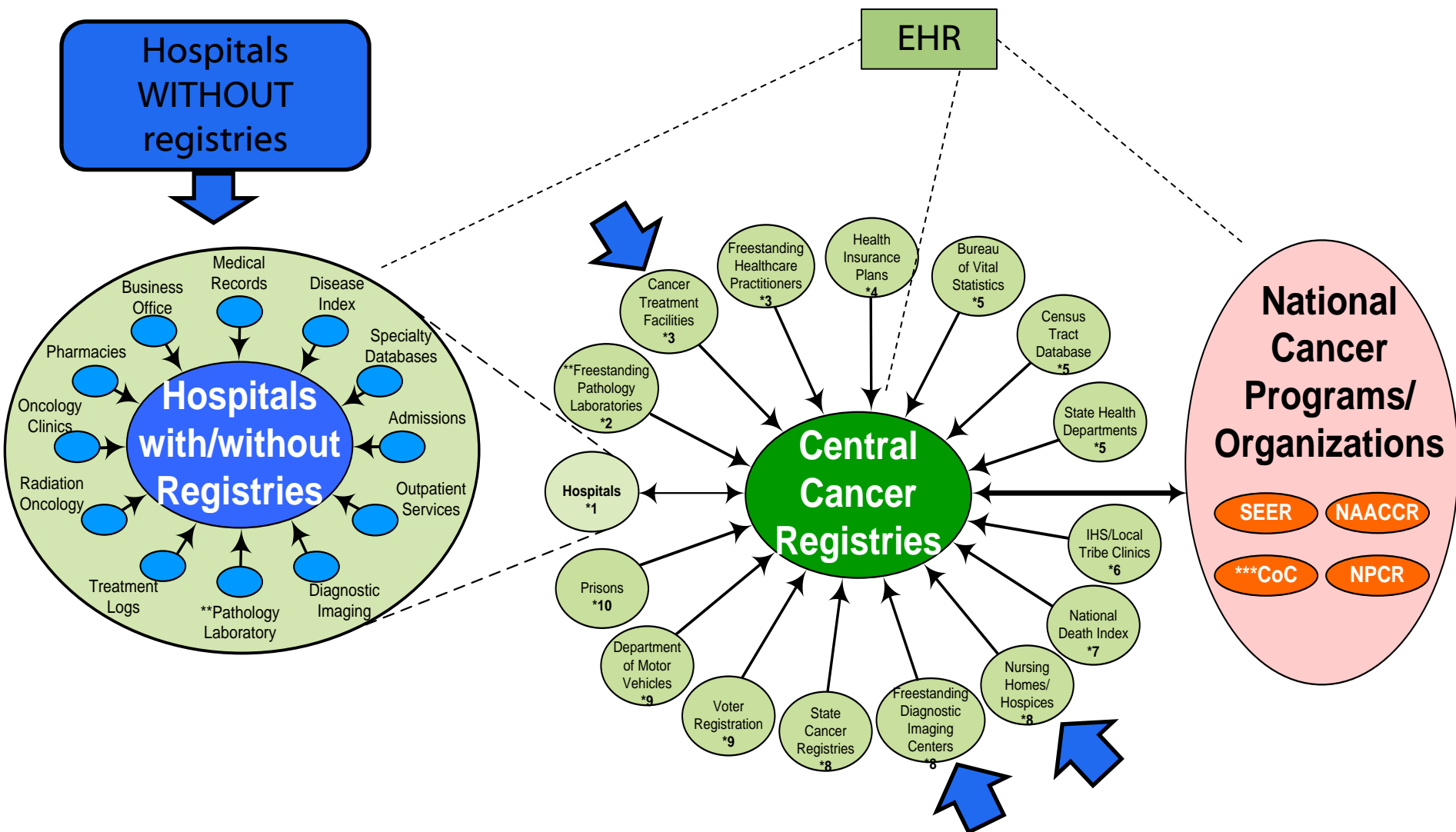
Profiles, Standards & Systems

- ❑ IHE Request Form for Data Capture (RFD)
- ❑ IHE Clinical Research Data Capture (CRD)
- ❑ HITSP C76: Case Report Pre-populate Component
- ❑ HITSP TP50: Retrieve Forms for Data Capture Transaction Package
- ❑ HITSP T66: Retrieve Value Set Transaction
- ❑ **Supporting Infrastructure:**
 - PHIN VADS for reportability criteria and standardizing data element values
 - Form Filler, Form Manager, Form Archiver, Form Receiver
 - Security

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Future Potential IHE Collaborations



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Collaborating with IHE

- ❑ **Anatomic Pathology Reporting Profile used existing transaction profiles which laboratories already had in place**
- ❑ **Provider Reporting Profile uses content from existing IHE profiles**
- ❑ **Increases vendor acceptance of profile**
- ❑ **Leveraging existing work can shorten time and cost of implementation**
 - Provider EMR reporting prototype took *less than 4* weeks to develop

Collaborating with IHE

- ❑ Collaborating with PEERS**
- ❑ Quality, Research and Public brings three related areas together**
- ❑ Allows common expertise AND challenges to be presented to the health IT community**
- ❑ Develop Profiles that can be use by multiple programs**
- ❑ Provider Reporting Profile can be applied to many public health programs where the physician is required to notify a central agency (i.e. Health Department) of a diagnosed health condition**



Presentation at HIMSS 2010 Annual Meeting

Collaborating with IHE

- ❑ Access to and Support of IT Vendors**
- ❑ Educate vendors on the needs and challenges of public health**
- ❑ Learn intricacies of EMR/EHR systems**
- ❑ Coordinated development of profiles that meet the needs of the user and are acceptable to the vendor**
- ❑ Identify partners for implementation of the Profile**

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

