

IIS-EHR BiDirectional Query

Technical Background
and
Introduction to Four Focus Areas

Project Goal in Technical Terms

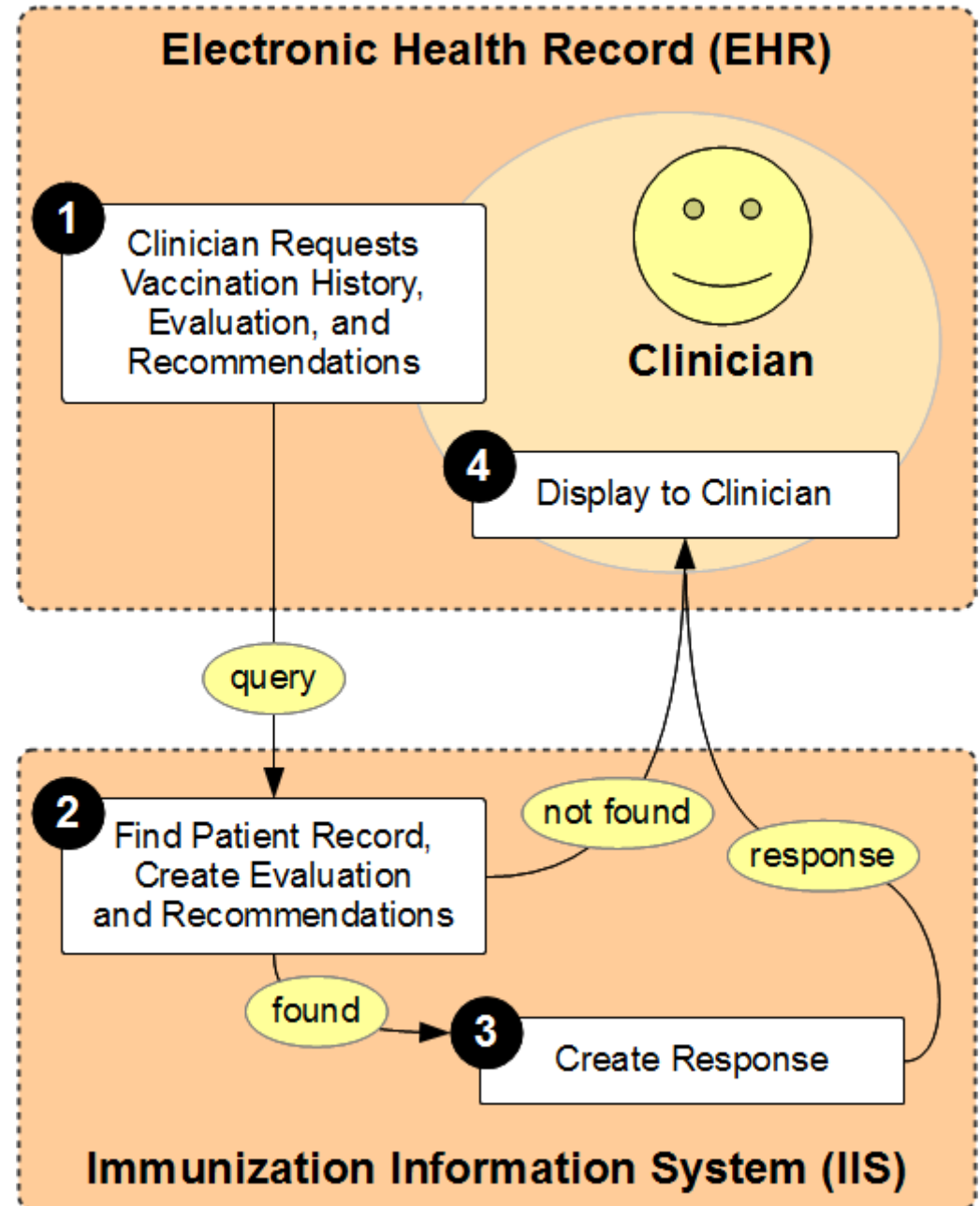
- Set a national standard for queries that
 - can be supported by most (if not all) IIS
 - can be correctly implemented by EHR systems without too much difficulty
 - will work well for clinicians
- Technical Risks
 - Design deficiencies
 - Technical flaws
 - Partial adoption



Preparation Work: Gap Analysis

- Interviewed:
 - Work group members
 - EHR Vendors
 - IIS Vendors
 - Clinicians
- Talked about:
 - Current issues with IIS-EHR interfaces.
 - Recommendations for items that need to be standardized.

Primary Use Case - Focus for Work Group



Current Applicable Standards

- CDC Implementation Guide
 - HL7 v2.5.1 QBP/RSP
- Transport Layer Expert Panel (TLEP)
 - Common SOAP WSDL

Focus

Not in Scope of Discussion Today

- Updates from IIS to the EHR (Outbound VXU's)
- Solving problems related solely to EHR submission of immunization data to IIS (VXU).
- Vaccine inventory functions and support.
- Supporting EHR reminder/recall, population health management, or quality reporting activities.
- Integration of EHR with an immunization decision support system (forecaster).

Details on Queries

Basic Types and Modes

- Two basic types of interfaces:
 - **Query**: EHR requests a complete record for a single identified patient from the IIS. (In Scope)
 - **Update**: IIS sends a patient record in order to update the EHR. (Out of Scope)
- Two basic modes:
 - **Attended**: User initiates and manages process. (In Scope)
 - **Unattended**: EHR or IIS manages process without user control. (To Be Determined)

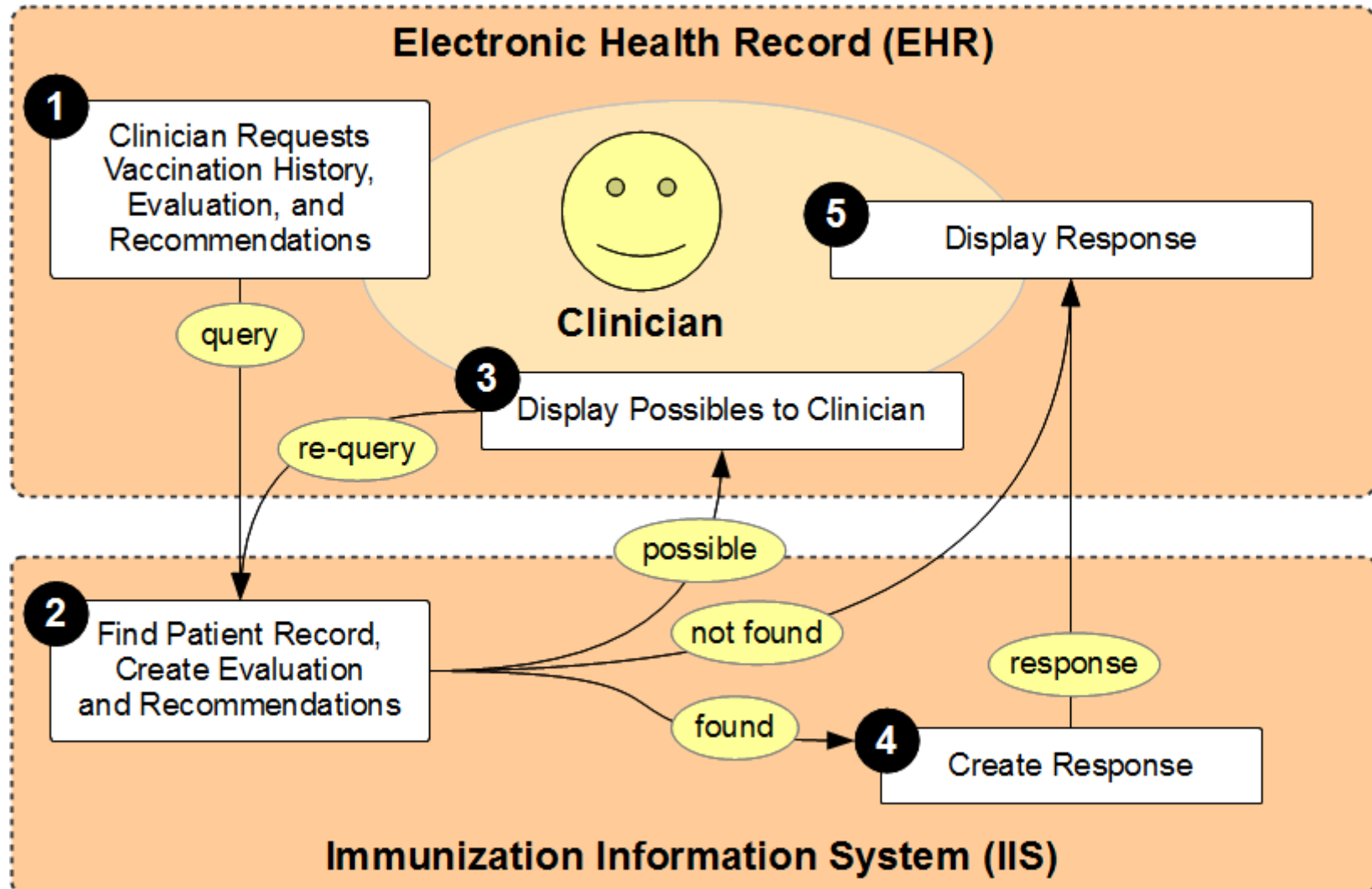
Vaccination Record

- Includes:
 - Patient information (demographics)
 - Vaccination history (shot record)
 - Evaluation and recommendations (forecast)
- Formats:
 - HL7 v2.3.1 VXR (in response to VXQ) - Not in Scope - original query standard
 - HL7 v2.5.1 RSP (in response to QBP) - In Scope
 - HL7 v2.* VXU - Not in Scope
 - Other non-standard format such as HTML

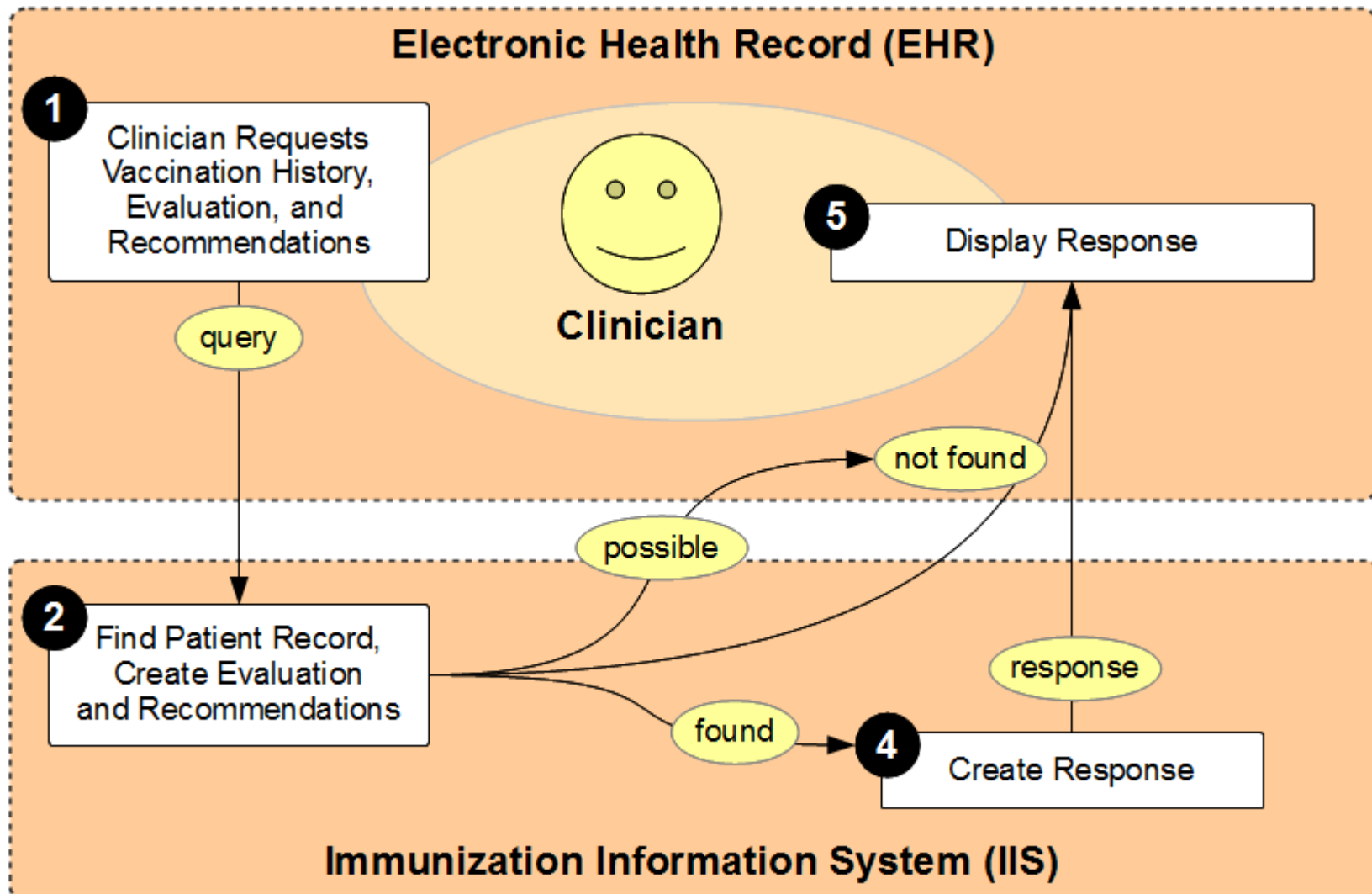
Patient Identification

- IIS return matches based on:
 - IIS patient id (unique id assigned by IIS)
 - EHR patient id (unique id assigned by EHR)
 - Other patient demographic information
- Handling possible matches:
 - IIS may return no match
 - IIS may return list of potential matches
 - EHR may allow user to select from potential matches

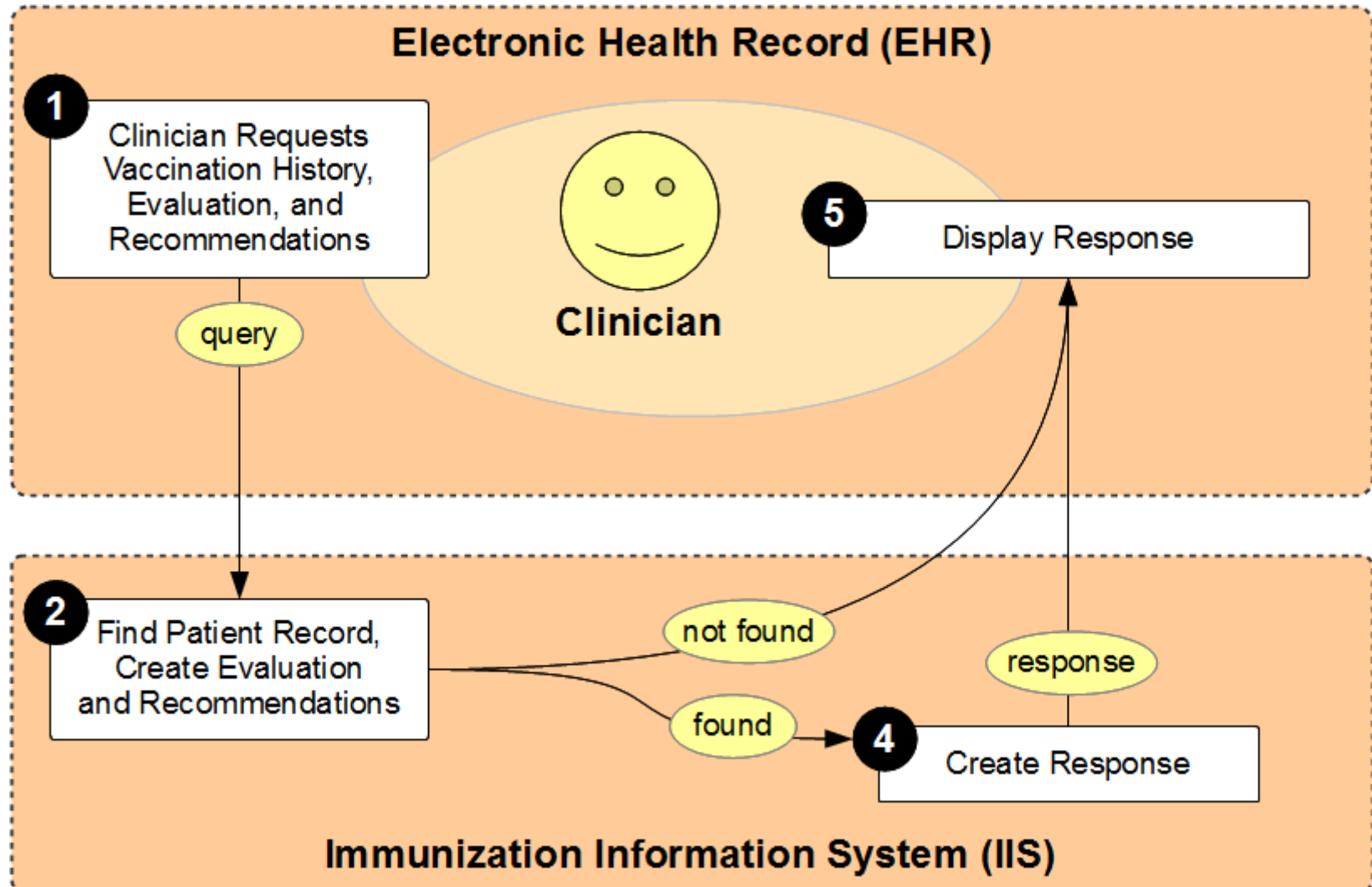
Complete Query Process



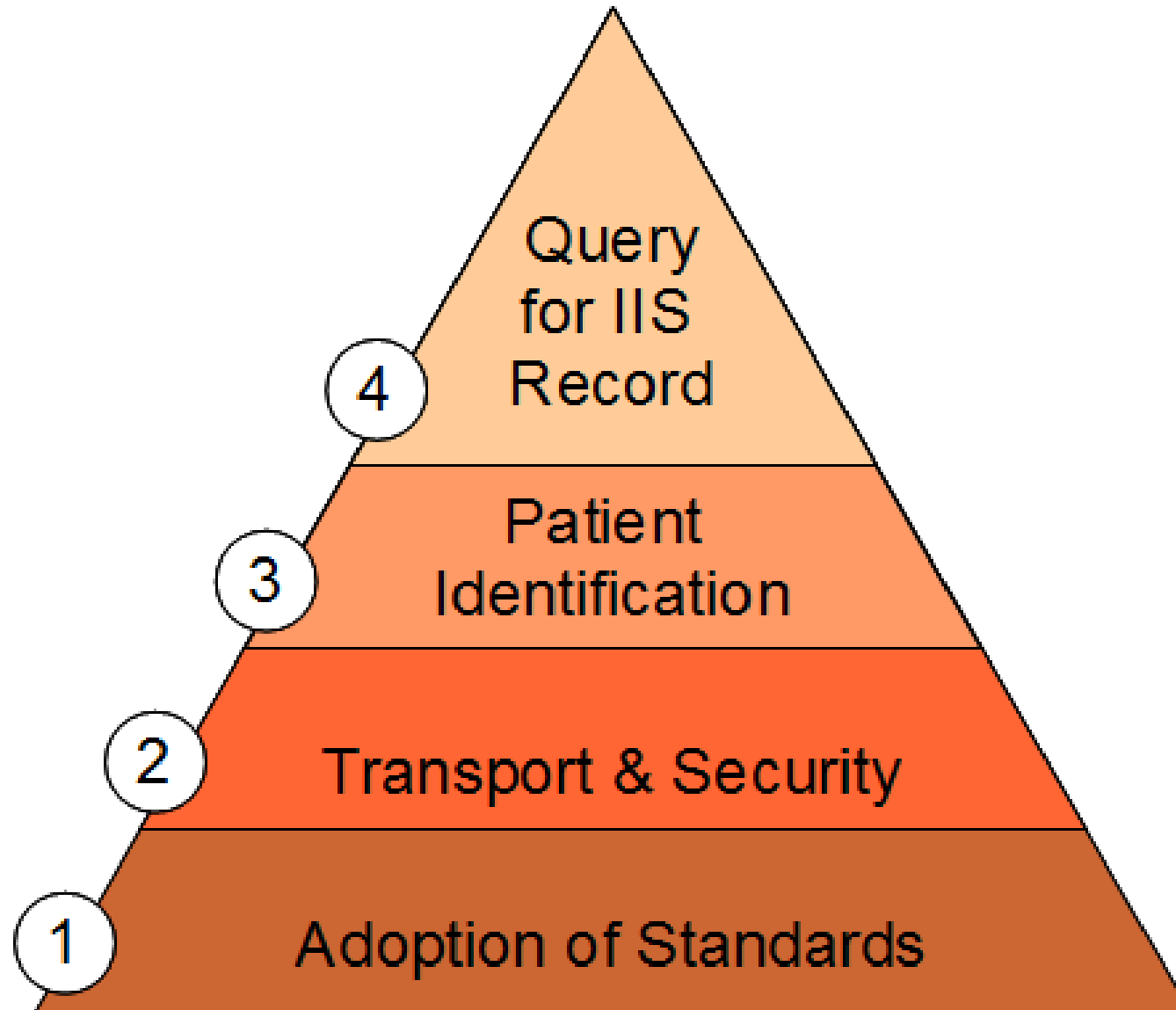
EHR Ignores Possible Matches



IIS Does Not Return Possible Matches



Identified Four Focus Areas



Focus Group Assignment

- Review background material
- Identify all the decision points
- Create a ten minute presentation - due by the end of today
- Make group recommendations
- Identify next steps

Background Material

- Created four word documents with background material, one for every focus area.
- Purpose for background material:
 - Summarize, document and organize information collected before this meeting.
 - Provide base and background information for each focus work group so that work can begin quickly.
- Background material will be superseded by artifacts created by work groups.
- Text can be lifted from the background material, but do not focus on fixing the original document

Decision Points

- Issues that need to be discussed and decided on in order to ensure use case is possible.
- Issues that are directly and critically relevant to the primary use case.
- Each issue has the potential attributes of:
 - **Recommended:** this needs to be adopted nationally in order for the use case to work
 - **Permit:** not critical for national adoption, but will not harm/distract from national goal
 - **Discourage:** will significantly distract from national adoption of a standard interface

Presentation

- Comprehensive
- Succinct
- 10 Minutes Long
- Power Point format
 - 12 to 20 slides for primary presentation
 - Additional slides at the end for any other material
 - Every slide should have notes with the background information
- This presentation is the final deliverable

Recommendations

- Making recommendations not decisions
- We will document recommendations from:
 - Individual work group members
 - Focus group recommendations
 - Entire work group recommendations
- Focus groups need to help determine:
 - Decisions that have broad consensus
 - Decisions that need more discussion

Next Steps

- Focus groups need to recommend next steps that could be taken for specific decisions or recommendations.
- Next Steps includes:
 - What is the end goal, what is really needed?
 - What is the first thing that needs to be done to move towards having this put in place?
 - Who in the group can help put the Next Step into place?

Standardization

- For a system to support a standard:
 - The system **MUST** support all requirements of standard.
 - The system **MAY NOT** add additional requirements not required by the standard.
 - The system **MAY** support other standards, even local requirements, for other interfaces, as long as it does not affect support and availability of standard interface.

Focus Group Setup

- Schedule Today
 - Meet before lunch, begin laying out presentation
 - After lunch, three rotations to visit other groups
 - End of the day, group comes back together and must finish presentation
- Team Organization
 - Focus group facilitator (already assigned)
 - Identify two group presenters
 - One presenter must stay and not rotate

Scope



Review of Background Documents