



# From ACIP to Health Information Systems

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2025 National Adult Immunization & Influenza Summit

## Background

## Terminology

- IIS = Immunization Information Systems
- EHR/EMR = Electronic Health/Medical Record system
- **Health Information Systems** = include IIS, EHRs, HIEs, Pharmacy systems, etc.
- CDS = Clinical Decision Support

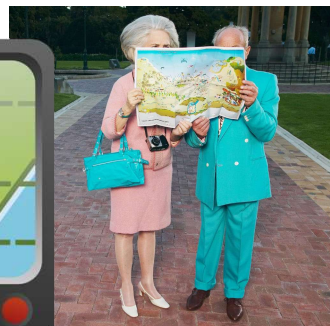


## What is Clinical Decision Support (CDS)?

It is the **GPS in your provider's toolkit**. It uses:

- medical guidelines
- patient data (like age, medications, or lab results), and
- evidence-based rules (ACIP recommendations)

Clarity, Consistency, and  
Computability



## *Also Known As* Evaluation & Recommendation

IIS consolidates  
information from Health  
Information Systems to  
create an individual's  
vaccination history

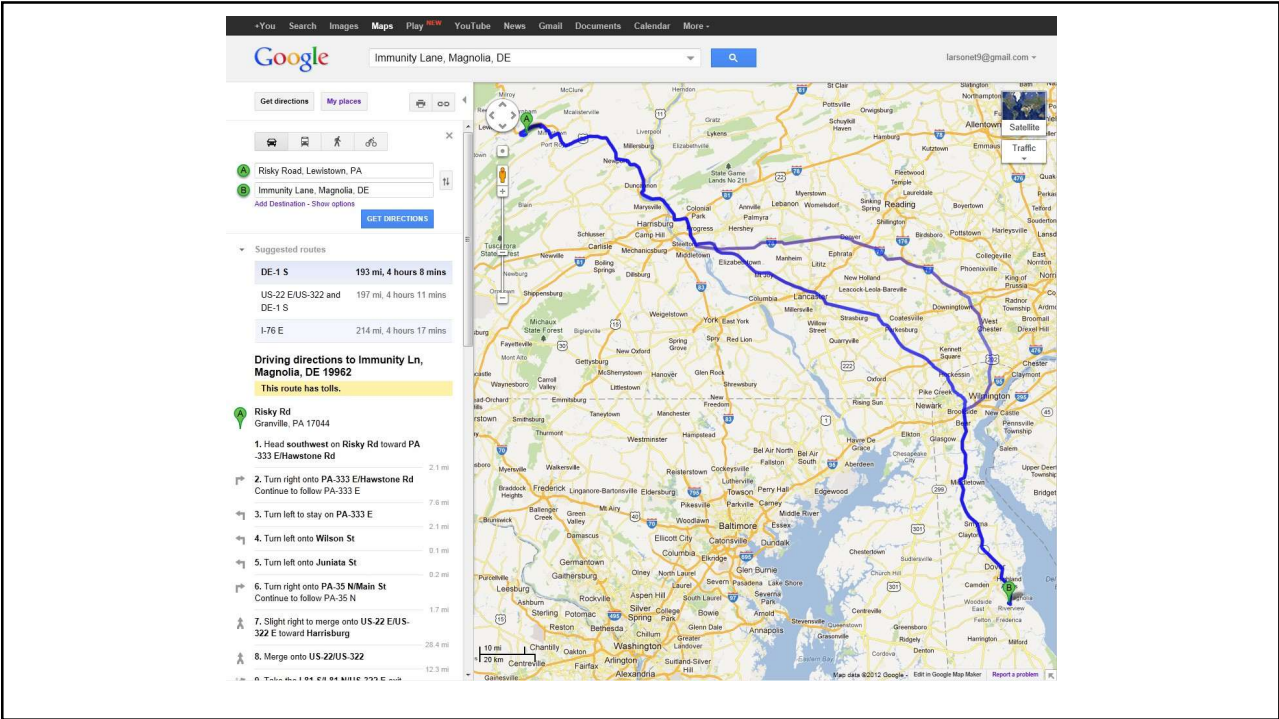
- IIS returns  
recommendations  
based on known  
information

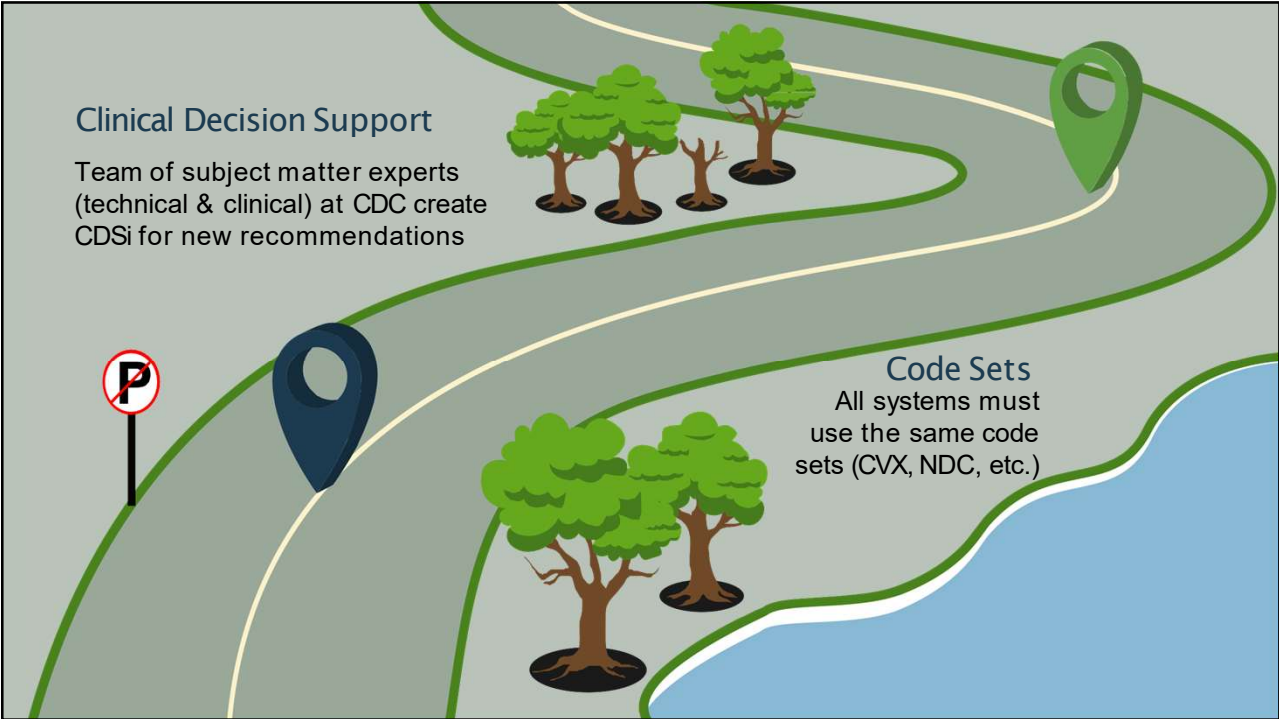
**Evaluation** – reviews a  
person's vaccination history,  
age, etc.

**Recommends** – vaccines  
based on individual factors and  
the ACIP recommendations



How does this work?





## Code Sets are Critical Elements

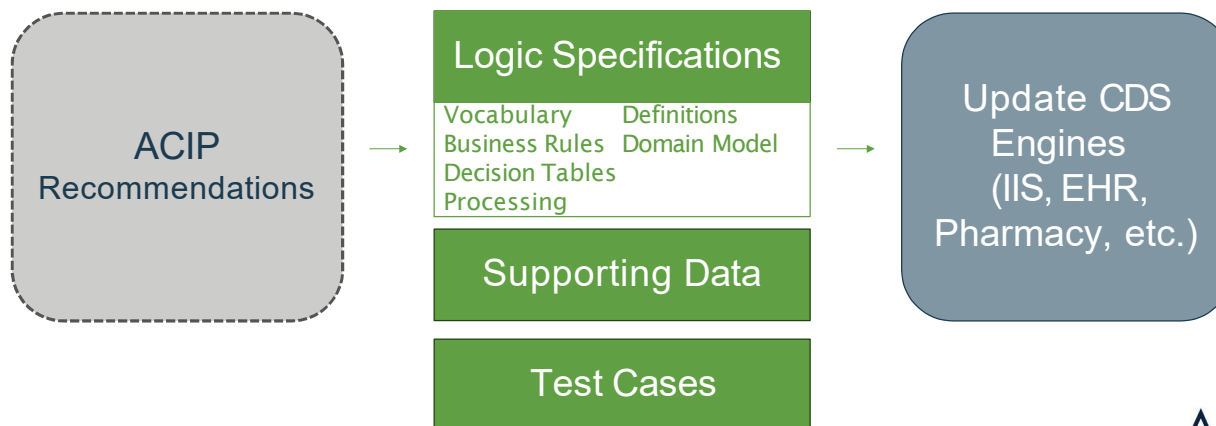


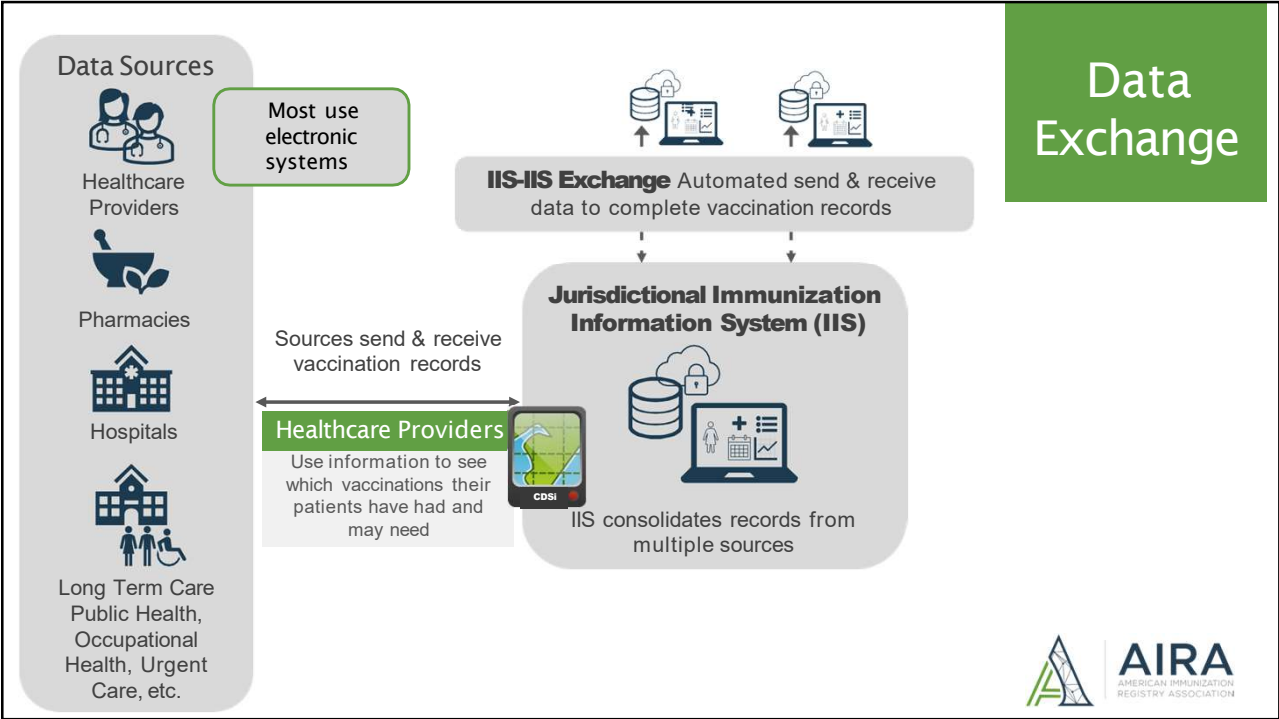
All systems must use the same code sets (CVX, NDC, etc.)

- It prevents errors
- It helps systems talk to each other accurately
- It allows data to be shared and understood quickly, even across different software systems
- **Code sets must be updated before CDS**

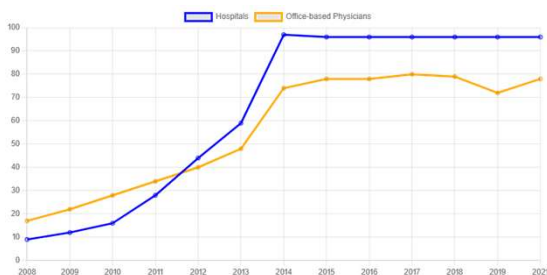


## ACIP Recommendations to CDS





## Implementation



As of 2021, 78% of office-based physicians and 96% of non-federal acute care hospitals adopted a certified EHR

In 2011, 28% of hospitals and 34% of physicians had adopted an EHR

All systems must update their code sets and CDS

Every. Single. System.  
Every. Single. Time.

There are more than 200,000 independent connections with IIS

<https://www.healthit.gov/data/quickstats/national-trends-hospital-and-physician-adoption-electronic-health-records>



## Communication Opportunities



- Including technology in the rollout processes (at all levels) will help ensure a smooth rollout
  - Code sets first, CDS second
  - IIS may be updated, but did the EHR update?
  - Prioritization – there are a million priorities, and communicating the need before you need it - is critical
- Risk-based recommendations
  - IIS don't have the proper data to do a great job





## Communication Opportunities



- Querying the IIS doesn't return all vaccines an individual may have received
  - All vaccinating providers must submit their vaccines to an IIS in a timely manner
  - An IIS (or any system) can only provide information that has been sent to it
- Shared Clinical Decision Making
  - We need a national conversation about who makes the recommendation – is this the patient, the provider, the pharmacy?



## In Summary

- Code sets and CDS are a powerful tool, but it is a team effort across the systems to make it work correctly
- If you work in a clinic, engage your IT staff and/or vendors in your workflows for new/updated products (flu, Covid, etc.,)
  - Add testing these system to your list of product rollouts
- Ask that Pharma, FDA, AMA, CDC, and others keep health data systems at the table for CDS conversations – *we can help make decisions easier to implement!*



