Immunization Information Systems Update

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What are Immunization Information Systems?

Immunization Information Systems are computerized systems that:

- **Record all shots on all children given by all providers in a geopolitical catchment area.**
- **Have functions and features needed by an immunization program (e.g. vaccine inventory management, adverse event reporting etc.);**
- **Have interoperability with other health information systems including Electronic Medical Records (EMR).**

Immunization Information Systems in the U.S.

- CDC provides annual funding to 56 Immunization Program Grantees (50 states, Washington DC, and 5 large cities)
- IIS development and implementation are a required component for immunization programs
- All grantee IIS must use the same technology-neutral functional standards

Immunization Information Systems Proposed Healthy People 2020 Objectives

IID HP2020–21:

- Increase the proportion of children under age 6 years who participate in fully operational population-based immunization registries.

IID HP2020–29:

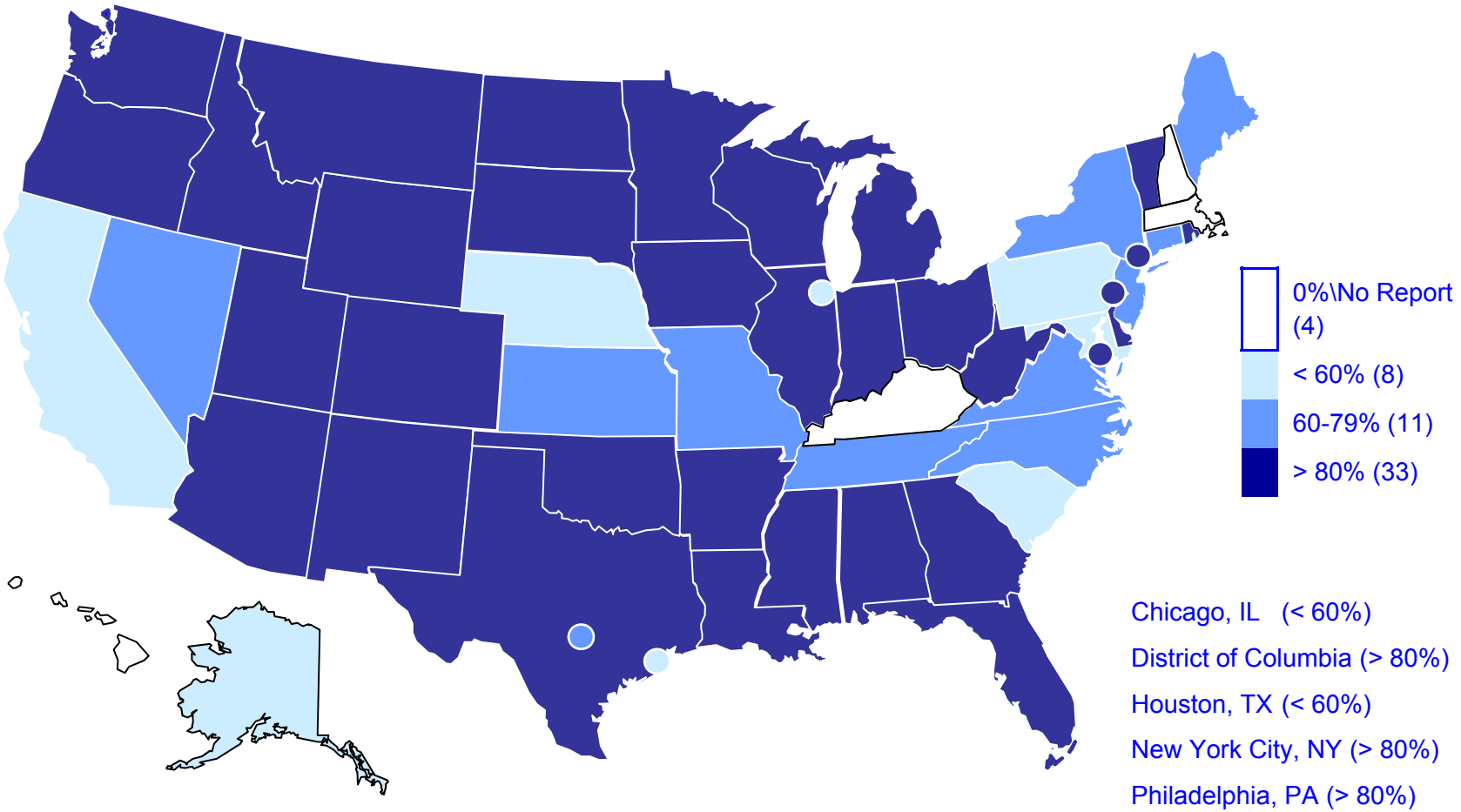
- Increase the number of States that have 80 percent of adolescents with two or more age-appropriate immunizations recorded in immunization information systems (adolescents aged 11 to 18 years).

Immunization Information Systems
Age Groups Participating in an IIS

	U.S. - 2000	U.S. - 2009
Participation of U.S. children < 6 years in an IIS with 2 or more immunizations.	21%	77% (18.4 million children < 6 years)
Participation of U.S. adolescents 11-18 years in an IIS with 1 or more immunizations.	-	46% (15.1 million adolescents 11-18 years)
Participation of U.S. adults >19 years in an IIS with 1 or more immunizations.	-	13% (30.8 million adults >19 years)
U.S. participation – all ages.	-	33% (88.5 million persons of all ages)

Source: 2009 Immunization Information System Annual Report

Percentage of children aged < 6 years participating in a grantee immunization information system -- United States, and six cities, 2009



National Participation: 77% (excluding Territories)
Source: CY 2009 IISAR

Immunization Information Systems
Provider Site Participation in IIS

	US - 2000	US - 2009
Participation of ***public provider sites*** submitting data to an IIS in the past 6 months.	38%	80%(11,191 public provider sites)
Participation of ***private provider sites*** submitting data to an IIS in the past 6 months.	19%	38%(34,990 private provider sites)
Participation of ***all U.S. provider sites*** submitting data to an IIS in the past 6 months.	-	44%(46,181 provider sites)

Source: 2009 Immunization Information System Annual Report

Immunization Information System Capacity to Track Adolescent and Adult Vaccinations

Data from the 2009 Immunization Information System Annual Report indicate that:

- **About 82% (46 of 56 grantees) report that they include all ages in their IISs.**

Source: 2009 Immunization Information System Annual Report

Immunization Information System Status on Selected Data Quality Measures As of December 31, 2009

Of those grantees with an IIS reporting:

- On average, 76% of newborn records are recorded in a grantee IIS within 6 weeks of birth
- 93% of grantees receive and process vaccine and other immunization data from their IIS within a 30 days of vaccine administration and 53% in < 7 days

Source: 2009 Immunization Information System Annual Report

Health Information Technology and Clinical Health Act (HITECH)

- HITECH was passed by Congress in 2009 to support the adoption and use of Electronic Health Records (EHRs) to achieve significant improvements in care through meaningful use of EHRs by health care providers.

- One meaningful use criteria for EHRs is to submit electronic immunization data to immunization registries or immunization information systems through the use of HL7.

Health Level 7 (HL7) Implementation

Full Compliance – Able to Send and Receive HL7 Messages	Partial Compliance – Able to Send or Receive HL7 Messages	No Compliance – Unable to Send or Receive HL7 Messages
30 of 51 (59%) grantees reporting	4 of 51 (8%) grantees reporting	17 of 51 (33%) grantees reporting
18 grantees were eligible and applied to receive HITECH-ARRA 317 funding to enhance EHR- IIS interoperability	2 grantees were eligible and applied to receive HITECH-ARRA 317 funding to enhance EHR- IIS interoperability	11 grantees were eligible and applied to receive HITECH-ARRA 317 funding to enhance EHR- IIS interoperability

Source: 2009 Immunization Information System Annual Report

EHR- IIS Interoperability

- **The 2009 IISAR requested information about the number of EHRs providing immunization data directly to your IIS through an electronic interface?**

- **<u>Response</u>: 37 grantees reported that 6,618 EHRs electronically reporting data to an IIS**

Source: 2009 Immunization Information System Annual Report

EHR- IIS Interoperability

EHR Vendor	# Grantees with Product
Allscripts – Touchworks	16
Connexin Software, Inc - Office Practicum	12
eClinical - eClinical Works	22
eMD	9
Epic Systems – Epicare	13
GE Medical - Centricity (Logician)	16
Misys Healthcare Systems - Misys EMR	14
Netsmart – Insight	7
NextGen - NextGen EMR	22
PCC	5
RPMS	11

Source: 2009 Immunization Information System Annual Report

EHR- IIS Interoperability

EHR data are significant because:

- **EHRs are used by larger practices**
- **Larger practices are more likely to be high volume immunizers**

Enhancing EHR-IIS interoperability will improve data quality challenges by addressing:

- **Accuracy**
- **Timeliness**
- **Completeness**

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