

Section IX. 2016 Immunization Information Systems Annual Report (IISAR)

What is the Immunization Information Systems Annual Report (IISAR)?

The IISAR is an annual survey that assesses immunization program performance in developing, maintaining, and enhancing Immunization Information Systems activities for a given calendar year. It is a reporting requirement for the 64 immunization programs that receive funding under section 317b of the Public Health Service Act.

A brief note on methods

- The IISAR is a self-reported, self-validated survey administered by CDC and answered by immunization program awardees. CDC may contact you with questions after submission in order to continue data validation.
- Data are collected prior to Census estimates are released for the year of the survey. For this reason, we include Census estimates in the survey for the year prior to provide preliminary estimates for some measures. These preliminary estimates are revised when the final Census data are released, approximately in June/July each year for the prior years' data. CDC provides preliminary estimates on the IISAR to ensure the estimates are concordant with the program and past years' data.

Changes in 2016

The IISAR underwent significant revisions in 2013 to address the new Functional Standards for IIS, 2013–2017 available at: <https://www.cdc.gov/vaccines/programs/iis/func-stds.html>. It is not intended to be comprehensive in addressing all areas within each Functional Standard, and is not meant to imply that some Functional Standards are more important than others. The IISAR is one tool among many that is used to gather information that is used to monitor awardee progress in achieving the new Functional Standards.

This year's survey has several changes compared with the 2015 survey. Changes are summarized here and new questions are indicated in red text throughout the survey.

- **Functional Standard 1** – Two new items (Q.13 and Q.14) about the AIRA transport layer assessment have been added.
- **Functional Standard 3** – Logic guidance for child, adolescent, and adult enrollment and participation has been expanded to better clarify the instructions from past years. Logic guidance for middle name fields for Q.54, 60, and 61 have been added.
- **Functional Standard 5** – User access to IIS data item has been redesigned to provide clearer response options.

Instructions

- All awardees that conduct IIS activities in their state/city/territory are required to complete this report.
- All awardees with IIS in transition are required to complete questions 1 through 7 and should consult with their IISB Project Officer to discuss completing other data elements on the questionnaire.
- Items in italics are completed by CDC; awardees only need to respond to questions that are NOT italicized.
- Throughout the IISAR questionnaire, age ranges are described as from age X *through* Y months/years. This terminology is consistent with language used by the Advisory Committee on Immunization Practices and indicates the lower and upper age limits for who should be included in data collection. In all cases, age X is the lower bound and age Y is the upper bound. For example, adolescents aged 11 through 17 years should include

adolescents at least 11 years old and less than 18 years of age. Those younger than 11 years, or 18 years or older, would not be included in this group.

- Submission of the final Immunization Information Systems Annual Report must be done by the Immunization Program Manager or their designee.
- Only one Annual Report will be accepted per awardee. If awardees receive information from other regions or counties in their jurisdiction, the awardee must compile the information into one Annual Report.
- The Annual Report is **due on March 31, 2017**; the year of performance is calendar year 2016. CDC IISB staff will contact each IIS after March 31 with questions and/or comments about the report and data submitted for calendar year 2016. After March 31, 2017, the submission data will be corrected and revised. Any revised submissions from awardees should correct issues with the submitted data as of March 31 ONLY. When submitting revisions, do NOT submit additional 2016 data that were uploaded AFTER the March 31 cutoff date.
- Please contact Terence Ng, CDC/NCIRD/IISB (contractor) at VFK5@cdc.gov or Lauren Shaw, CDC/NCIRD/IISB at ILV6@cdc.gov to expand on any answers, document an answer you feel is more appropriate than the category provided, if the answer to a question is unknown or data are not available, or if you need clarification on a question or answer choice.

CONTACT INFORMATION and SCOPE OF IIS

Logic Guidance:

Questions 1–7 are required to be completed by all awardees, including those with IIS in transition or temporarily inactive. List ONLY government employee contacts in questions 5 and 6.

1. Awardee _____
2. Name of IIS _____
3. IIS web address (If none, include Immunization Program web address) _____
4. Name of person(s) submitting this report _____

5. Programmatic IIS contact person (a manager or administrator who coordinates IIS activities):
 - a. First Name: _____
 - b. Last Name: _____
 - c. Title: _____
 - d. Affiliation: _____
 - e. Address: _____
 - f. Address 2: _____
 - g. City: _____
 - h. State:
 - i. Zip: _____
 - j. Phone: _____ k. Ext: _____
 - l. Fax: _____
 - m. Email: _____
 - n. Check if contact person for questions about this report

6. Technical IIS Contact Person (coordinator of IIS software and/or hardware) :
 - Check if same as programmatic contact (if yes, autopopulate a-m)
 - a. First Name: _____
 - b. Last Name: _____
 - c. Title: _____
 - d. Affiliation: _____
 - e. Address: _____
 - f. Address 2: _____
 - g. City: _____
 - h. State:
 - i. Zip: _____
 - j. Phone: _____ k. Ext: _____
 - l. Fax: _____
 - m. Email: _____
 - n. Check if contact person for questions about this report

7. There is no IIS in this state/city/territory. (If yes, block out entire report)

FUNCTIONAL STANDARD 1: Support the delivery of clinical immunization services at the point of immunization administration, regardless of setting

1.1 The IIS provides individual immunization records accessible to authorized users at the point and time where immunization services are being delivered.

1.2 The IIS has an automated function that determines vaccines due, past due, or coming due (“vaccine forecast”) in a manner consistent with current ACIP recommendations. Any deficiency is visible to the clinical user each time an individual’s record is viewed.

1.3 The IIS automatically identifies individuals due/past due for immunization(s), to enable the production of reminder/recall notifications from within the IIS itself or from interoperable systems.

1.4 When the IIS receives queries from other health information systems, it can generate an automatic response in accordance with interoperability standards endorsed by CDC for message content/format and transport.

1.5 The IIS can receive submissions in accordance with interoperability standards endorsed by CDC for message content/format and transport.

Logic Guidance:

- **Q10–11:**
 - Consider ONLY your system’s capability to use HL7. DO NOT consider flat-file or web-interface transactions.
 - Consider message exchanges that occurred in CY2016 only. DO NOT consider messages exchanged AFTER December 31, 2016.
 - Consider ONLY messages received or sent by your production IIS, NOT a test system.
 - Refer to NCIRD’s Implementation Guide for Immunization Data Transactions for more information on using Version 2.5.1 of the Health Level Seven (HL7) Standard Protocol (<http://www.cdc.gov/vaccines/programs/iis/technical-guidance/hl7.html>) and to the SOAP Implementation Resources, Formal Specification, and Mini-Guide documents for more information on SOAP (<https://www.cdc.gov/vaccines/programs/iis/technical-guidance/soap/services.html>)

- **Q13–14:**
 - These questions refer to EHR-IIS interface assessment conducted by the American Immunization Registry Association (AIRA) to evaluate SOAP and WSDL transport messaging.
 - More information can be found here: <http://www.immregistries.org/resources/aira-initiatives/assessment>

8. In 2016, could users accessing the IIS through the user interface view a vaccination forecast on the same screen as the individual’s vaccination record, without having to navigate to other screens in the IIS? Yes / No

9. In 2016, did your IIS send an immunization forecast to another system via HL7? Yes / No

10. In CY2016 could your IIS **send an HL7 v2.5.1 outbound message** to another system in production? Yes/No (If No, skip table and go to next question)
(If No, skip table and go to next question)

HL7 v2.5.1 Messages SENT by IIS to another system	In CY2016, could your IIS send this message type to another system?	In CY2016, did your IIS send this message type to another system?
ADT	a. <input type="checkbox"/> Yes <input type="checkbox"/> No	b. <input type="checkbox"/> Yes <input type="checkbox"/> No
RSP	c. <input type="checkbox"/> Yes <input type="checkbox"/> No	d. <input type="checkbox"/> Yes <input type="checkbox"/> No
ACK	e. <input type="checkbox"/> Yes <input type="checkbox"/> No	f. <input type="checkbox"/> Yes <input type="checkbox"/> No

11. In CY2016, could your IIS **receive an HL7 v2.5.1 inbound message** from another system in production?
Yes/No (If No, skip table and go to next question)

HL7 v2.5.1 Messages RECEIVED by IIS from another system	In CY2016, could your IIS receive this message type from another system?	In CY2016, did your IIS receive this message type from another system?
VXU	a. <input type="checkbox"/> Yes <input type="checkbox"/> No	b. <input type="checkbox"/> Yes <input type="checkbox"/> No
ADT	c. <input type="checkbox"/> Yes <input type="checkbox"/> No	d. <input type="checkbox"/> Yes <input type="checkbox"/> No
QBP	e. <input type="checkbox"/> Yes <input type="checkbox"/> No	f. <input type="checkbox"/> Yes <input type="checkbox"/> No
ACK	g. <input type="checkbox"/> Yes <input type="checkbox"/> No	h. <input type="checkbox"/> Yes <input type="checkbox"/> No

12. What protocol do you use to transport data between your IIS and health information systems? Please choose all that apply:

- ebXML
- HTTPS/REST
- sFTP
- SOAP/XMLP
- Message queuing
- Email/SMTP
- MLLP
- Other
- Does not apply

13. Have you implemented changes to your IIS in response to AIRA’s transport layer assessment? (Select one)

- Yes, we have implemented all recommended message transport changes in our IIS.
- Yes, we have implemented some, but not all, of the recommended message transport changes in our IIS.
- No, we have not implemented any of the recommended changes in our IIS.
- Not applicable. Our participation did not result in any recommended changes for our IIS.
- Not applicable. We did not participate in AIRA’s assessment for message transport.

14. If you selected “Yes, we have implemented some, but not all of the recommended message transport changes in our IIS” or “No, we have not implemented any of the recommended message transport changes in our IIS” in Question 13, what barriers have prevented you from implementing all of the recommended changes? (Check all that apply)

- The recommended message transport changes are not a current priority for our program.
- Additional funds would be necessary to implement recommended message transport changes.
- Additional human resource skills (e.g. training, technical assistance) would be necessary to implement recommended message transport changes.
- Implementation has been planned for a later date.

Specify date in box:

Other

Notes for Functional Standard 1

Please provide any relevant notes or comments for data provided for Functional Standard 1.

FUNCTIONAL STANDARD 2: Support the activities and requirements for publicly-purchased vaccine, including Vaccines for Children (VFC) and state purchase programs

- 2.1** The IIS has a vaccine inventory function that tracks and decrements inventory at the provider site level according to VFC program requirements.
- 2.2** The IIS vaccine inventory function is available to direct data entry users and can interoperate with EHR or other inventory systems.
- 2.3** The IIS vaccine inventory function automatically decrements as vaccine doses are recorded.
- 2.4** Eligibility is tracked at the dose level for all doses administered.
- 2.5** The IIS interfaces with the national vaccine ordering, inventory, and distribution system (currently VTrckS).
- 2.6** The IIS can provide data and/or produce management reports for VFC and other public vaccine programs.

Logic Guidance:

The following questions refer only to functions for publicly-purchased vaccines.

- Q16 and Q18: Availability of a function refers to the presence of a function, not necessarily the use of that function.
- Q18: Examples of the interaction between the vaccine inventory function and the electronic health record (EHR) include but are not limited to automatic decrementing of doses, and the ability to see inventory within the EHR.
- Q20: Please see Chapter 5 of the MIROW guide Immunization Information System Collaboration with Vaccines For Children Program and Grantee Immunization Programs for more information on the reports at http://www.immregistries.org/AIRA-MIROW_IIS-VFC_Best_Practice_Guide_04-14-2011.pdf
- Q21: Please see Chapter 6 of the MIROW guide MIROW Inventory Management Operations Best Practices for more information on the reports at <http://www.immregistries.org/AIRA-MIROW-Inventory-Management-best-practice-guide-06-14-2012.pdf>

15. In 2016, did your IIS have a vaccine inventory function that tracked inventory at the provider site level? Yes / No

16. If Yes to #15, was your vaccine inventory function available to direct data entry users? Yes / No

17. If Yes to #16, if an immunization was recorded by a direct entry user, did your inventory function automatically decrement that dose from the computerized inventory? Yes / No

18. If Yes to #15, was your vaccine inventory function available to EHR users via HL7 linkage? Yes / No

19. If Yes to #18, if an immunization was reported to the IIS from an EHR, did your inventory function automatically decrement that dose from the IIS's computerized inventory? Yes / No

20. In 2016, did your IIS produce reports [1], or were the data in your IIS used to produce reports, that supported the process of (check all that apply):

- a. Producing estimates for the number of vaccines that will be administered to specified age groups by individual VFC provider organizations during the upcoming year
- b. Producing estimates for the aggregated total of the number of vaccines that will be administered to specified age groups by all VFC provider organizations in your jurisdiction during the upcoming year
- c. Detailing vaccine doses administered by individual VFC provider organizations

[1] From MIROW guide *Immunization Information System Collaboration with Vaccines For Children Program and Grantee Immunization Programs*,
http://www.immregistries.org/AIRA-MIROW_IIS-VFC_Best_Practice_Guide_04-14-2011.pdf

21. In 2016, did your IIS produce reports [2], or were data in the IIS used to produce reports that supported vaccine inventory management including (check all that apply):

- a. Accountability reports to support inventory management (for purposes other than ordering and reconciliation)
- b. Reconciliation reports
- c. Accountability reports for ordering (reports that support the ordering process)

[2] From MIROW *Immunization Information System Inventory Management Operations*,
<http://www.immregistries.org/AIRA-MIROW-Inventory-Management-best-practice-guide-06-14-2012.pdf>

22. In 2016, did your IIS maintain a list of vaccines available for ordering by uploading the current Federal Vaccines List? Yes / No

23. In 2016, did your IIS use VTrckS shipment data to (check all that apply):

- a. Notify provider organizations of vaccine inventory in transit
- b. Allow provider organizations to acknowledge receipt of vaccine,
- c. Transfer doses to available inventory at the provider organization level

24. In 2016, could provider organization staff print a shipping manifest (along with VTrckS return tracking number, which is available in the returns mapping file) from the IIS to accompany vaccines returned to the distributor? Yes/No

Notes for Functional Standard 2	Please provide any relevant notes or comments for data provided for Functional Standard 2.
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FUNCTIONAL STANDARD 3: Maintain data quality (accurate, complete, timely data) on all immunization and demographic information in the IIS

- 3.1 The IIS provides consolidated demographic and immunization records for persons of all ages in its geopolitical area, except where prohibited by law, regulation, or policy.
- 3.2 The IIS can regularly evaluate incoming and existing patient records to identify, prevent, and resolve duplicate and fragmented records.
- 3.3 The IIS can regularly evaluate incoming and existing immunization information to identify, prevent, and resolve duplicate vaccination events.
- 3.4 The IIS can store all IIS Core Data Elements.
- 3.5 The IIS can establish a record in a timely manner from sources such as Vital Records for each newborn child born and residing at the date of birth in its geopolitical area.
- 3.6 The IIS records and makes available all submitted vaccination and/or demographic information in a timely manner.
- 3.7 The IIS documents active/inactive status of individuals at both the provider organization/site and geographic levels.

Age groups

25. Which age groups are included in your IIS? Select one:
- a. Birth through 59 months of age
 - b. Birth through 18 years of age
 - c. All ages, including adults
 - d. Other (specify)_____

Logic Guidance:

- For Q27–28, include:
 - Children known to have been born in and residing in the state/city on the date of birth.
 - Children known to have been born in the state/city, whose state/city of residence on the date of birth is unknown but who currently are known to reside in your jurisdiction.
 - Children known to have been residing in the state/city on the date of birth but whose state of birth is unknown.
 - Children whose state/city of birth and state/city of residence on the date of birth are both unknown but who currently are known to reside in your jurisdiction.
 - If a patient record comes to the IIS through other birth record sources, but is later verified by Vital Records, consider the patient record to have come from Vital Records.
 - If a patient record comes to the IIS through other birth record sources ONLY, consider the patient record to have come from other record sources.
- Exclude:
 - Children who are known to have been born outside the state/city.
 - Children known to have been residing outside of the jurisdiction on the date of birth.

Birth population capture

26. *Number of children in the geopolitical area born from January 1 through December 31, 2016 (2016 Census Data)*

27. Number of patient records created in your IIS for children born and residing in your geopolitical area and born from January 1 through December 31, 2016 from Vital Records _____

28. Number of patient records created in your IIS for children born and residing in your geopolitical area and born from January 1 through December 31, 2016 from sources other than Vital Records _____

a. *Proportion of children in the IIS born from January 1 through December 31, 2016 with records created in the IIS from Vital Records (Q27/Q26)*

b. *Proportion of children in the IIS born from January 1 through December 31, 2016 with records created in the IIS from all sources (Q27+Q28 / Q26)*

Child Participation in IIS (aged 4 months through 5 years)

Logic Guidance:

- For children born from January 1, 2011 through August 31, 2016.

Enrollment:

- **Include:**
 - Children enrolled in the IIS, regardless of having only travel vaccines, only non-vaccine products, or no vaccines in the vaccine record.
- **Exclude:**
 - Children with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of children residing in the geopolitical location covered by the IIS.
 - INACTIVE children in the IIS. Children are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.
 - Demographic records belonging to those with **only** an H1N1 vaccination record.

Participation:

- **Include:**
 - All doses (valid and invalid) administered **before** January 1, 2017, including those **recorded** in the IIS after December 31, 2016.
- **Exclude:**
 - Children with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of children residing in the geopolitical location covered by the IIS.
 - INACTIVE children in IIS. Children are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.
 - Demographic records belonging to those with only an H1N1 vaccination record.
 - H1N1 vaccines administered
 - Travel vaccines (yellow fever, typhoid, etc.) See: <http://wwwnc.cdc.gov/travel/page/yellowbook-home>
 - Non-vaccine products (e.g. immune globulins, PPD)

29. *Number of children aged 4 months through 5 years in the geopolitical area (2016 Census Data)*

30. Child enrollment: Number of children aged 4 months through 5 years (born from January 1, 2011 through Aug 31, 2016) in both in your geopolitical area AND in your IIS _____

a. *Proportion of children aged 4 months through 5 years in both your geopolitical area AND in your IIS (Q30/Q29)*

31. Child participation: Number of children in question 30 (children born from January 1, 2011 through Aug 31, 2016 that are both in your geopolitical area AND in your IIS) that have 2 or more immunizations recorded in your IIS (Healthy People 2020 objective) _____

a. *Proportion of children aged 4 months through 5 years in your geopolitical area and IIS that have 2 or more immunizations recorded in your IIS (Q31/29)*

Adolescent Participation in IIS (aged 11 through 17 years)

Logic Guidance — Adolescent participation in IIS

- Skip this section if you answered 'a' on question 25.
- For adolescents born from January 1, 1999 through December 31, 2005

Enrollment:

- **Include:**
 - Adolescents enrolled in the IIS, regardless of having only travel vaccines, only non-vaccine products, or no vaccines in the vaccine record.
- **Exclude:**
 - Adolescents with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of adolescents residing in the geopolitical location covered by the IIS.
 - INACTIVE adolescents in IIS. Adolescents are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.
 - Demographic records belonging to those with **only** an H1N1 vaccination record.

Participation:

- **Include:**
 - All doses (valid and invalid) administered **before** January 1, 2017, including those **recorded** in the IIS after December 31, 2016.
 - Adolescent doses **ONLY** if they were administered from age 9 through 17 years. Only include: Tdap/Td, HPV, meningococcal, seasonal influenza, pneumococcal, HepA, HepB, polio, MMR, and varicella. (<http://www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html#printable>)
- **Exclude:**
 - Doses administered to adolescents before the child's 9th birthday.
 - Adolescents with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of adolescents residing in the geopolitical location covered by the IIS.
 - INACTIVE adolescents in IIS. Adolescents are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.
 - Demographic records belonging to those with only an H1N1 vaccination record.
 - H1N1 vaccines administered
 - Travel vaccines (yellow fever, typhoid, etc.) See: <http://wwwnc.cdc.gov/travel/page/yellowbook-home>
 - Non-vaccine products (e.g. immune globulins, PPD)

32. Number of adolescents aged 11 through 17 years in your geopolitical area (2016 Census Data)

33. How many adolescents aged 11 through 17 years (born from January 1, 1999 through December 31, 2005) are both in your geopolitical area AND in your IIS? _____

a. Adolescent enrollment: Proportion of adolescents aged 11 through 17 years that are both in your geopolitical area AND in your IIS (Q33/Q32)

34. How many adolescents in question 33 (adolescents born from January 1, 1999 through December 31, 2005 that are both in your geopolitical area AND in your IIS) have 2 or more adolescent immunizations administered from age 9 through 17 years recorded in your IIS? (Healthy People 2020 objective) _____

- a. *Adolescent participation: Proportion of adolescents aged 11 through 17 years in your geopolitical area and IIS that have 2 or more adolescent immunizations recorded in your IIS (Q34/Q32)*

Adult Participation in IIS (aged 19 years and older)

Logic Guidance — Adult Participation in IIS

- Skip this section if you answered 'a' or 'b' on question 25.
- For adults born on or before December 31, 1997

Enrollment:

- **Include:**
 - Adults enrolled in the IIS, regardless of having only travel vaccines, only non-vaccine products, or no vaccines in the vaccine record.
- **Exclude:**
 - Adults with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of adults residing in the geopolitical location covered by the IIS.
 - INACTIVE adolescents in IIS. Adolescents are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.
 - Demographic records belonging to those with **only** an H1N1 vaccination record.

Participation:

- **Include:**
 - All doses (valid and invalid) administered **before** January 1, 2017, including those **recorded** in the IIS after December 31, 2016.
 - Adult doses **ONLY** if they were administered from age 19 years and older. Only include: seasonal influenza, Tdap/Td, varicella, HPV, zoster, MMR, pneumococcal, meningococcal, HepA, and HepB <http://www.cdc.gov/vaccines/schedules/downloads/adult/adult-schedule.pdf>
- **Exclude:**
 - Doses administered before 19 years of age.
 - Adults with addresses outside of your state or geopolitical area. Geopolitical Area is defined as the area that contains the population of adults residing in the geopolitical location covered by the IIS.
 - INACTIVE adults. Adults are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.
 - Demographic records belonging to those with only an H1N1 vaccination record.
 - H1N1 vaccines administered
 - Travel vaccines (yellow fever, typhoid, etc.) See: <http://wwwnc.cdc.gov/travel/page/yellowbook-home>
 - Non-vaccine products (e.g. immune globulins, PPD)

35. *Number of adults aged 19 years and older in your geopolitical area (2016 Census Data)*

36. How many adults aged 19 years and older (born on or before December 31, 1997) are both in your geopolitical area AND in your IIS?

- a. *Adult enrollment: Proportion of adults aged 19 years and older that are both in your geopolitical area AND in your IIS (Q36/Q35)*

37. How many adults in question 36 (born on or before December 31, 1997 who are both in your geopolitical area AND in your IIS) have 1 or more adult immunization(s) administered at 19 years and older recorded in your IIS? _____

- a. *Adult participation: proportion of adults aged 19 years and older in your geopolitical area and IIS that have 1 or more adult immunization(s) recorded in your IIS (Q37/Q35)*

Provider Site Participation

Logic Guidance

- **Immunization Site:** A service delivery location (public or private) that maintains permanent records (excluding temporary or mobile immunization clinics, health fairs, etc.).
- **Public Provider Immunization Site:** an immunization site funded by a governmental agency directly; a unit of government is responsible for managing operations.
- **Private Provider Immunization Site:** an immunization site funded privately and or indirectly by a governmental agency (e.g., CMS); a non-governmental unit is responsible for managing operations.
- **Include:**
 - All provider sites enrolled in your IIS, regardless of age group served by those sites or your IIS.
 - All provider sites enrolled in the IIS as of December 31, 2016.
- **Exclude:**

Provider sites that only enrolled to provide emergency vaccines such as during pandemic response scenarios. (e.g., exclude a community center that only enrolled due to the 2010 H1N1 influenza pandemic and does not provide other immunizations. **However, include** a pediatrician that enrolled due to the 2010 H1N1 influenza pandemic if they **also** continue to provide routine immunizations.)

Examples of Public Provider Sites	Examples of Private Provider Sites
Public health department operated clinic	Private practice (solo, group, or HMO)
Public health department clinic as agent for FQHC/RHC	Private practice (solo or group) as agent for FQHC/RHC
Public hospital	Private hospital
FQHC/RHC (community, migrant, or rural)	Special vaccine clinics, e.g. flu clinics
Community health center	Pharmacy
Tribal or Indian Health Service clinic	Other private health facility
WIC	
STD/HIV	
Family planning	
Juvenile detention center	
Correctional facility (all ages)	
Drug treatment facility	
Military health care facility	

NOTE: Examples are not mutually exclusive. For example, correctional facilities/drug treatment facilities/Community Health Centers/family planning clinics/etc. can be either public or private depending on funding source.

PUBLIC Provider Sites		
	VFC Sites	Non-VFC Sites
38. Number of public provider sites in your geopolitical area enrolled in your IIS as of December 31, 2016	a.	b.
39. Number of enrolled public provider sites reporting data to your IIS at least once from July 1, 2016–December 31, 2016	a.	b.

PRIVATE Provider Sites		
	VFC Sites	Non-VFC Sites
40. Number of private provider sites in your geopolitical area enrolled in your IIS as of December 31, 2016	a.	b.

41. Number of enrolled private provider sites reporting data to your IIS at least once from Jul 1, 2016 – December 31, 2016	a.	b.
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4:3:1:3:3:1:4 Series Coverage (for children aged 19 through 35 months)

Logic Guidance:

- **Coverage** is defined as the number of individuals in a certain age group who received an immunization(s) divided by the Census-based estimate of persons in that age group in your geopolitical area.
- For children born from January 1, 2014 through May 31, 2015.
- Doses administered **before** January 1, 2017, including those **recorded** after December 31, 2016.
- The 4:3:1:3:3:1:4 series includes 4 or more DTaP/DTP/DT, 3 or more Polio, 1 or more MMR, 3 or more Hepatitis B, ≥3 or ≥4 of Hib*, 1 or more Varicella[†], and 4 or more pneumococcal containing vaccine).

*When calculating Hib doses, include children who received 4+ Hib-containing vaccine doses (includes any type of Hib vaccine, including Hib, unspecified formulation) or 2 Hib-OMP doses (manufactured by Merck; includes PedVaxHib and Comvax) followed by ≥1 Hib dose of any type.

Valid Doses:

- Include:
 - Doses that were administered according to ACIP *routine* recommendations that meet criteria to satisfy requirements for series completion.
 - † When counting Varicella, INCLUDE those with history of disease.
- Exclude:
 - Exclude doses administered that are considered valid according to ACIP recommendations BUT that *do not* contribute to series completion (e.g. doses administered for increased/high risk conditions).

Example: A valid MMR dose administered to a 6 month old prior to international travel does not contribute to the childhood standard measles, mumps, rubella series — another MMR dose would still be needed at 12 months. The 6 month dose would not be included when calculating the 4:3:1:3:3:1:4 series.

All Doses:

- Include:
 - Both valid and invalid doses.
 - † When counting Varicella, EXCLUDE those with history of disease.

For Both Columns (Valid and All Doses):

- Exclude:
 - Children with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of children residing in the geopolitical location covered by the IIS.
 - INACTIVE children in IIS. Children are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.

	Valid doses	All doses
42. Number of children aged 19 through 35 months in your geopolitical area (2016 Census Data)	--	--

	43. How many children born during January 1, 2014 through May 31, 2015 that are in your geopolitical area have received the complete 4:3:1:3:3:1:4 series?		
	<i>a. Coverage – proportion of children aged 19 through 35 months in the population that have completed the 4:3:1:3:3:1:4 series (Q43/Q42)</i>	--	--

Adolescent Immunization Coverage (for adolescents aged 13 through 17 years)

Logic Guidance — Adolescent Immunization Coverage in IIS

- Skip this section if you answered 'a' on question 25.
- For adolescents born from January 1, 1999 through December 31, 2003
- **Coverage** is defined as the number of individuals in a certain age group who received an immunization(s) divided by the census-based estimate of persons in that age group in your geopolitical area.

Valid Doses

- Include:
 - Doses that were administered according to ACIP *routine* recommendations that meet criteria to satisfy requirements for series completion.
 - Doses administered **before** January 1, 2017, including those **recorded** after December 31, 2016.
 - Valid ACIP recommended adolescent doses administered at any time before the child's 18th birthday
- Exclude:
 - Doses administered that are considered valid according to ACIP recommendations BUT that *do not* contribute to series completion (e.g. doses administered for increased/high risk conditions).

All Doses (Valid and Invalid)

- Include:
 - Doses administered **before** January 1, 2017, including those **recorded** after December 31, 2016.
 - All ACIP recommended adolescent doses administered at any time before the child's 18th birthday

For Both Columns (Valid and All Doses)

- Exclude:
 - Adolescents with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of children residing in the geopolitical location covered by the IIS.
 - INACTIVE adolescents in IIS. Adolescents are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere at a jurisdictional level.

44. Number of adolescents aged 13 through 17 years in your geopolitical area (2016 Census Data)	--	
	Valid doses	All doses
45. How many adolescents aged 13 through 17 years (born from January 1, 1999 through December 31, 2003) that are both in your geopolitical area AND in your IIS have at least one dose of Tdap/Td?		
a. Coverage — Proportion of adolescents aged 13 through 17 years in the population that have at least one dose of Tdap/Td. (Q45/Q44)	--	--
46. How many adolescent FEMALES aged 13 through 17 years are in your geopolitical area? (2016 Census Data)	--	
47. How many adolescent FEMALES aged 13 through 17 years (born from January 1, 1999 through December 31, 2003) that are both in your geopolitical area AND in your IIS have at least 3 doses of HPV?		
a. Coverage — Proportion of adolescent FEMALES aged 13 through 17 years in the population that have at least 3 doses of HPV (Q47/Q46)	--	--

48. How many adolescent MALES aged 13 through 17 years are in your geopolitical area? (2016 Census Data)	--	
49. How many adolescent MALES aged 13 through 17 years (born from January 1, 1999 through December 31, 2003) that are both in your geopolitical area AND in your IIS have at least 3 doses of HPV?		
a. Coverage — Proportion of adolescent MALES aged 13 through 17 years in the population that have at least 3 doses of HPV (Q49/Q48)	--	--

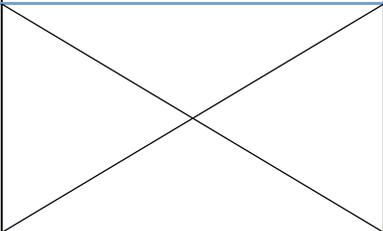
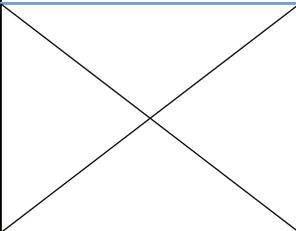
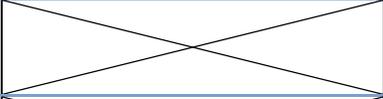
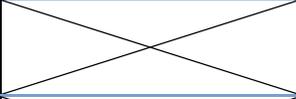
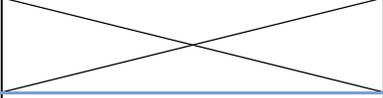
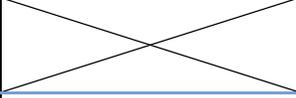
Core Data Elements—Patient Records

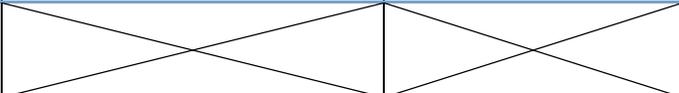
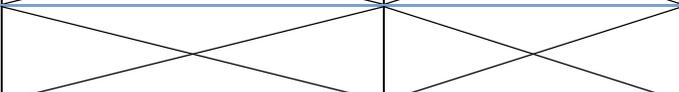
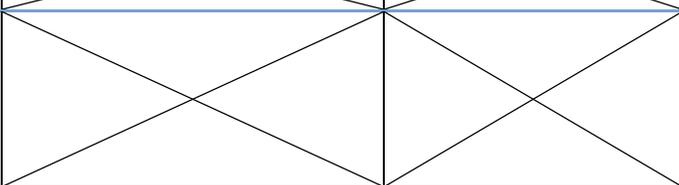
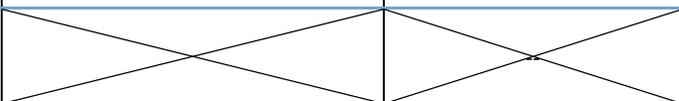
Logic Guidance: Core Data Elements – Patient Records

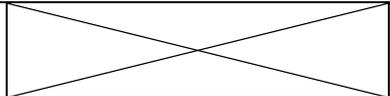
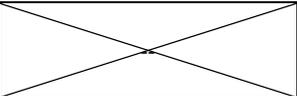
- Please fill in the following on each core data element field included in your IIS database.
- For children with **date of birth from January 1 through December 31, 2016.**
- Exclude:
 - Children who are known to have been born outside the state/city.
 - Children known to have been residing outside of the jurisdiction on the date of birth.
 - Children with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of children residing in the geopolitical location covered by the IIS.
 - INACTIVE children in IIS. Children are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.
 - H1N1 vaccines administered and demographic records belonging to those with only an H1N1 vaccination record.
 - Travel vaccines (yellow fever, typhoid, etc.) See: <http://wwwnc.cdc.gov/travel/page/yellowbook-home>
 - Non-vaccine products (e.g. immune globulins, PPD)

50. Based on the exclusion criteria above, what is the number of patient records in the IIS for all children with date of birth from January 1, 2016 through December 31, 2016? _____

Patient-level core data elements	Field Status (check one)	Number of child records with date of birth from January 1 through December 31, 2016, <u>with field populated with data</u>	Percentage of child records with date of birth from January 1 through December 31, 2016 with field populated with data. Denominator from Q50 (auto-calculated)
51. Patient ID (e.g., can be the IIS ID, or other type)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
52. Patient ID — Assigning Authority (i.e., owning source) (e.g., could be the IIS, or other)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
53. Patient ID — Type (e.g. medical record number, IIS ID)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		

<p>54. Patient Name</p> <p>Logic guidance: Consider Middle Name to be populated if the field is populated with the patient's middle initial.</p>	<p>a. First Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>b. Middle Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>c. Last Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>	<p>d. # e. # f. #</p>	<p>g. Q54/(Q50) h. - i. --</p>
<p>55. Patient Alias Name</p>	<p>a. First Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>b. Middle Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>c. Last Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>		
<p>56. Patient Date of Birth</p>	<p>a. <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>	<p>b. #</p>	<p>c. --</p>
<p>57. Patient Gender</p>	<p>a. <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>	<p>b. #</p>	<p>c. --</p>
<p>58. Patient Multiple Birth Indicator</p>	<p>a. <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>		
<p>59. Patient Birth Order</p>	<p>a. <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>		
<p>60. Responsible Person Name</p> <p>Logic guidance: if there is more than one responsible person name in your IIS, only include one person per child record. Examples of responsible persons include guardian, adoptive or foster parent</p> <p>Consider Middle Name to be populated if the field is populated with the responsible person's middle initial.</p>	<p>a. First Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>b. Middle Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>c. Last Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>d. Relationship to patient <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>	<p>e. # Responsible Person First Name</p> <p>f. # Responsible Person Middle Name</p> <p>g. # Responsible Person Last Name</p> <p>h. # Responsible Person Relationship</p>	<p>i. - j. - k. - l. -</p>
<p>61. Mother's Name</p> <p>Logic guidance: Consider Middle Name to be populated if the field is populated with the mother's middle initial.</p>	<p>a. First Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>b. Middle Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>c. Last Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>d. Maiden Last Name <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>	<p>e. # Mother's First Name</p> <p>f. # Mother's Middle Name</p> <p>g. # Mother's Last Name</p> <p>h. # Mother's Maiden Name</p>	<p>i. - j. - k. - l. -</p>
<p>62. Address (Street, City, State, Country, Zip, County)</p> <p>Logic guidance: if there is more than one address listed per child, only include one per child record</p>	<p>a. Street: <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>b. City: <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>c. State: <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>d. Country: <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>e. Zip: <input type="checkbox"/> Field present <input type="checkbox"/> No field</p> <p>f. County: <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>	<p>g. # Street</p> <p>h. # City</p> <p>i. # State</p> <p>j. # Country</p> <p>k. # Zip code</p> <p>l. # County</p>	<p>m. - n. - o. - p. - q. - r. -</p>

63. Race	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c. --
64. Ethnicity <ul style="list-style-type: none"> Hispanic or Latino [A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race] Not Hispanic or Latino 	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	d. --
65. Birthing Facility Name	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
66. Patient Birth state	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
67. Patient Primary Language Logic guidance: refers to the language listed for either the patient or the parent/responsible person	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
68. Patient Telephone Number Logic guidance: refers to the telephone number of either the patient or the parent/responsible person	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
69. Phone Number Type (e.g. home, cell)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
70. Patient E-mail address Logic guidance: refers to the language of either the patient or the parent/responsible person	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
71. Patient status indicators: Definition: A field to denote the status of a patient. Examples: <ul style="list-style-type: none"> Active Inactive Inactive – Lost to follow-up (cannot contact) Inactive – Moved or gone elsewhere (transferred) Inactive – Permanently inactive (deceased) NOTE: If the patient has more than one patient status indicator in your IIS (e.g. for multiple provider sites), include the patient in the numerator if they have at least one active or inactive status indicated in their record.	a. Provider facility level: <input type="checkbox"/> Field present <input type="checkbox"/> No field b. IIS (Jurisdictional) level: <input type="checkbox"/> Field present <input type="checkbox"/> No field	c. Provider level # d. Jurisdictional level #	e. – f. --
72. History of Vaccine Preventable Disease (e.g., varicella)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		

73. Date of History of Vaccine Preventable Disease	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
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Core Data Elements — Vaccination Records

Logic Guidance: Core Data Elements — Vaccination Records

- Please fill in the following on each core data element field included in your IIS database.
- These questions pertain to all **vaccinations** administered to from January 1, 2016 through December 31, 2016, for persons of all ages.

- Exclude:
 - Persons with addresses outside of your state or geopolitical area. Geopolitical area is defined as the area that contains the population of children residing in the geopolitical location covered by the IIS.
 - INACTIVE persons in IIS. Persons are considered inactive for this report if they are (1) inactive permanently, or (2) have moved or gone elsewhere from the geopolitical area covered by the IIS.
 - H1N1 vaccines administered and demographic records belonging to those with only an H1N1 vaccination record.
 - Travel vaccines (yellow fever, typhoid, etc.) See: <http://wwwnc.cdc.gov/travel/page/yellowbook-home>
 - Historical vaccinations
 - Non-vaccine products (e.g. immune globulins, PPD)

74. What is the number of vaccination records in the IIS for vaccines administered to all children, adolescents and adults in the IIS from January 1, 2016 through December 31, 2016? _____

Vaccination core data elements	Field Status (check one)	Number of vaccination records with vaccine date of administration from January 1 through December 31, 2016, for persons of all ages, <u>with field populated with data</u>	<i>Percentage of vaccination records with vaccine date of administration from January 1 through December 31, 2016 with field populated with data. Denominator from Q74 (auto-calculated)</i>
75. Vaccine Product Type Administered	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
76. Vaccination Administration Date	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
77. Vaccine Manufacturer Name	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
78. Vaccine Lot Number	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
79. Vaccine Expiration Date	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
80. Vaccine Dose Volume Note: <ul style="list-style-type: none"> • If the IIS captures actual dose volume (ex. "0.5 mL"), answer "Field present" • If the IIS captures actual dose volume (ex. "0.5 mL") and also uses a generic dose system (ex. "full" or "half"), answer "Field present" • If IIS captures actual dose volume (ex. "0.5 mL") BUT only captures it outside the IIS (such as in a reference table), answer "No field" 	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	X	X

<ul style="list-style-type: none"> If IIS ONLY uses a generic dose system (ex. "full" or "half", but does NOT capture actual dose volume (ex. "0.5 mL"), answer "No field" 			
81. Vaccine Dose Unit Definition: The actual unit of measurement. Ex: "mL"	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
82. Vaccine Site of Administration	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
83. Vaccine Route of Administration	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
84. Vaccine Ordering Provider Name	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
85. Vaccine Administering Provider Name	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
86. Vaccine Administering Provider Suffix (e.g. MD, RN, LPN)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
87. Vaccination Event Information Source (i.e. administered or historical)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
88. VIS Type	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
89. VIS Publication Date	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
90. VIS Date Given to Patient	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field	b. #	c.--
91. Contraindication(s) / Precaution(s)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
92. Contraindication(s) / Precaution(s) Observation Date(s)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
93. Exemption(s) / Parent Refusal(s) of Vaccine	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
94. Date of Exemption(s) / Parent Refusal(s) of Vaccine	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		
95. Vaccine Reaction(s)	a. <input type="checkbox"/> Field present <input type="checkbox"/> No field		

Vaccination core data element for VFC/awardee program vaccine eligibility at the dose level

Logic Guidance: Vaccination core data element for VFC/awardee program vaccine eligibility at the dose level

- If VFC/awardee program vaccine eligibility is stored in the IIS at the dose level (i.e. a VFC/awardee program vaccine eligibility status is assigned to and stored for every administered dose recorded in the IIS), answer 'field present' and complete questions b,c, e and f. This is true if the eligibility status is collected and stored by the IIS for each uniquely administered dose, or if eligibility is collected at the vaccination event/visit level (i.e. for all vaccinations administered during a single vaccination event) and is translated by the IIS to the dose level (e.g. the eligibility status for the event is recorded as VFC-Medicaid and the IIS assigns this status to a vaccination record indicating DTaP administered during the visit but not to a vaccination record indicating yellow fever vaccine administered during the same visit). If VFC / awardee program eligibility is stored in the IIS at the vaccination event/visit level and not translated by the IIS to each unique administered dose, answer 'no field' present.
- For this question only, please limit to doses administered from **January 1 through December 31, 2016** to 0–18 year olds (**date of birth January 1, 1998 through December 31, 2016**) as only this age group is eligible for VFC.
- Provider is counted as VFC provider if enrolled as such during the entire calendar year
- Exclude historical doses

Vaccination core data element	Field status (check one)	VFC providers only		Non-VFC providers only	
		b. # numerator (number of vaccination records with vaccine date of administration from January 1 through December 31, 2016, administered to persons aged 0 through 18 years (DOB January 1, 1998 through December 31, 2016), by VFC providers only with this field populated with data)	d. percent vaccination records with vaccine date of administration from January 1 through December 31, 2016 administered to persons aged 0 through 18 years with field populated with data (Q96b/c)	e. # numerator (number of vaccination records with vaccine date of administration from January 1 through December 31, 2016, administered to persons aged 0 through 18 years (DOB January 1, 1998 through December 31, 2016), by non-VFC providers only with this field populated with data)	g. percent vaccination records with vaccine date of administration from January 1, 2016 through December 31, 2016 for persons aged 0 through 18 years with field populated with data (Q96e/f)
<p>96. VFC/Awardee Program Vaccine Eligibility at Dose Level</p> <p>Examples:</p> <ul style="list-style-type: none"> • Not VFC eligible • VFC eligible — Medicaid • VFC eligible — Uninsured • VFC eligible — American Indian/Alaskan Native • VFC eligible — Underinsured (FQHC/RHC/Provider with delegated authority) • VFC eligible — State- or Local-specific eligibility • Eligible for a non-VFC funding source (e.g., state or locally defined) 	<p>a. <input type="checkbox"/> Field present <input type="checkbox"/> No field</p>	<p>c. # denominator (number of vaccination records administered to persons aged 0 through 18 years (DOB January 1, 1998 through December, 31, 2016) by VFC providers only in the IIS in 2016)</p>		<p>f. # denominator (number of vaccination records administered to persons aged 0 through 18 years (DOB January 1, 1998 through December 31, 2016) by non-VFC providers only in the IIS in 2016)</p>	

Timeliness of birth records in IIS

Logic Guidance

- Other birth record source includes birthing hospitals, perinatal or newborn screening programs.
- Day 0 refers to the date of birth.
- Days listed refer to calendar days.
- Columns a and b are mutually exclusive.

- Include:
 - Records that were reported after December 31, 2016 for CY2016 births born in the catchment area.
 - Children born from January 1 through December 31, 2016.
 - When determining whether a record was established by Vital Records or other birth record sources, consider which source the birth record was established by FIRST. Therefore, regardless of whether a birth record is later established by Vital Records, if it was first established by Other Record sources, consider it established by Other Record Sources. Only consider a record established by Vital Records if it was established in the IIS by Vital Records FIRST.

- Exclude:
 - Children who are known to have been born outside the state/city
 - Children known to have been residing outside of the jurisdiction at the date of birth.
 - INACTIVE children in IIS. Children are considered inactive for the purposes of this reporting if they are (1) inactive permanently, or (2) have moved or gone elsewhere at a jurisdictional level.

97. For children born January 1, 2016–December 31, 2016 born and residing in the IIS’s geopolitical area , what number had a record established in the IIS within the following days after birth:

	a. Number of children with record established from vital records	b. Number of children with record established from sources other than vital records	Percentage of children with records established in the specified timeframe (auto-calculated)
≤1 day	a.	b.	<i>c. $(a+b)/(s+t)$</i>
>1 day - ≤7 days	d.	e.	<i>f. $(d+e)/(s+t)$</i>
>7 days - ≤14 days	g.	h.	<i>i. $(g+h)/(s+t)$</i>
>14 days - ≤30 days	j.	k.	<i>l. $(j+k)/(s+t)$</i>
>30 days - ≤45 days	m.	n.	<i>o. $(m+n)/(s+t)$</i>
>45 days	p.	q.	<i>r. $(p+q)/(s+t)$</i>
<i>Total (auto-calculated)</i>	s.--	t.--	

Timeliness of vaccination records in IIS

Logic Guidance

- Age at which vaccine is administered should be determined by the date of vaccine administration during CY2016.
- A person who receives a vaccination in more than one of the age groups listed below will be counted in more than one category. For example, an 18 year old who receives a vaccination at age 18 years, then turns 19 years old during CY2016 and has another vaccination at age 19 years, will be counted in both columns.
- Timeframes listed refer to calendar days.
- Include:
 - Doses that were reported after December 31, 2016 but administered during CY2016.
 - Vaccinations administered in CY2016 for all persons in the IIS
 - All doses (valid and invalid)
- Exclude:
 - INACTIVE persons in IIS. Persons are considered inactive for the purposes of this reporting if they are (1) inactive permanently, or (2) have moved or gone elsewhere at a jurisdictional level.
 - Persons with addresses outside of your state or geopolitical area. Geopolitical Area is defined as the area that contains the population of people residing in the geopolitical location covered by the IIS.
 - H1N1 vaccines administered and demographic records belonging to those with only an H1N1 vaccination record.
 - Travel vaccines (yellow fever, typhoid, etc.) See: <http://wwwnc.cdc.gov/travel/page/yellowbook-home-2016>
 - Historical records
 - Non vaccine products

98. For vaccinations administered in CY2016 to all persons in the IIS, list the number of vaccine doses reported to the IIS within the following time frames:

	Number of vaccine doses administered to children and adolescents aged 0 through 18 years (i.e. non-historical) during CY2016	Number of vaccine doses administered to adults aged 19 years and older (i.e. non-historical) during CY2016	Percentage of doses reported for persons aged 0 through 18 years for the specified timeframe (auto-calculated)	Percentage of doses reported for adults aged 19 years and older for the specified timeframe (auto-calculated)
≤1 day	A	B	M (A/K)	N (B/L)
>1 day–≤7 days	C	D	O (C/K)	P (D/L)
>7 days–≤14 days	E	F	Q (E/K)	R (F/L)
>14 days–≤30 days	G	H	S (G/K)	T (H/L)
>30 days	I	J	U (I/K)	V (J/L)

<i>Total (auto-calculated)</i>	<i>K</i>	<i>L</i>		
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Notes for Functional Standard 3	Please provide any relevant notes or comments for data provided for Functional Standard 3.
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Functional Standard 4: Preserve the integrity, security, availability and privacy of all personally-identifiable health and demographic data in the IIS

Functional Standard 4: Preserve the integrity, security, availability and privacy of all personally-identifiable health and demographic data in the IIS

4.1 The IIS program has written confidentiality and privacy practices and policies based on applicable law or regulation that protect all individuals whose data are contained in the system.

4.2 The IIS has user access controls and logging, including distinct credentials for each user, least-privilege access, and routine maintenance of access privileges.

4.3 The IIS is operated or hosted on secure hardware and software in accordance with industry standards for protected health information, including standards for security/encryption, uptime and disaster recovery.

- 99.** Have the IIS's written confidentiality and privacy policies been reviewed by the health department counsel or other appropriate authority? Yes/No
- 100.** Must all IIS users affirmatively assent to the confidentiality and privacy policies before being granted access to the IIS? Yes/No
- 101.** Does every individual who accesses the IIS through the user interface (UI) have unique log-in credentials (i.e. credentials are not shared by multiple IIS users, even within a provider organization)? Yes/No
- 102.** Does every provider organization/other IIS user that accesses the IIS electronically (e.g. HL7, flat file) have unique site-level credentials?
- 103.** Does the IIS currently tier access to the system according to defined user roles, and grant access to each individual user according to their mutually agreed upon role? Yes/No
- 104.** Can the IIS audit any of the following, including the date, time and IIS user who took the action? (Check all that apply)
- a. Creation of an IIS record
 - b. Viewing of an IIS record
 - c. Editing of an IIS record
- 105.** Are individual- and organization-level access privileges reviewed at least annually to deactivate users that are no longer authorized to access the IIS? Yes/No
- 106.** Is personally identifiable information (PII)/protected health information (PHI) encrypted at-rest (i.e. on the disk) and on-the-fly (i.e. in transit between the server and user)? Yes/No
- 107.** Does the IIS have a written agreement with provider organizations/other IIS users on the level of uptime expected/required, and time-to-recovery for system failure? Yes/No
- 108.** Does the IIS have a written agreement with the IT office/vendor that supports the IIS on the level of uptime expected/required, and time-to-recovery for system failure? Yes/No

109. Is data backup implemented according to a written policy and schedule? Yes/No

110. Is data backup implemented with routine (at least annual) testing to validate that the data can be restored from backups? Yes/No

111. Does that IIS have a disaster recovery plan established for a full recovery from catastrophic failure (i.e. loss of hardware, software, and data) (“bare metal restore” plan), which identifies required equipment and procedures and agrees on a maximum allowable downtime/time-to-restore? Yes/No

112. Is the hardware/data center secured with physical access controls and power management? Yes/No

Notes for Functional Standard 4	Please provide any relevant notes or comments for data provided for Functional Standard 4.
	

Functional Standard 5: Provide immunization information to all authorized stakeholders

5.1 The IIS can provide immunization data access to healthcare providers, public health, and other authorized stakeholders (e.g., schools, public programs, payers) according to law, regulation or policy.

5.2 The IIS can generate predefined and/or ad hoc reports (e.g., immunization coverage, vaccine usage, and other important indicators by geographic, demographic, provider, or provider groups) for authorized users without assistance from IIS personnel.

5.3 With appropriate levels of authentication, IIS can provide copies of immunization records to individuals or parents/guardians with custodial rights.

5.4 The IIS can produce an immunization record acceptable for official purposes (e.g., school, child care, camp).

113. In 2016, which level of data access did the following user types have to your IIS? Select one.

User type	Read-Only (Some)	Read-Only (All)	Update (Some)	Update (All)	Varied (Some)	Both	No Access	N/A
	Some are granted read-only access to IIS data. All others have no access to IIS data.	All are granted read-only access.	Some are granted the ability to read and update a record. All others have no access to IIS data.	All are granted the ability to read and update a record.	Some have no access to IIS data, some are granted read-only access to IIS data, and some are granted the ability to read and update a record.	Some are granted read-only access to IIS data and some are granted the ability to read and update a record, but ALL have some level of access to IIS data.	The user type exists but none are enrolled or otherwise granted access to IIS data.	The user type is inactive or does not exist in your geopolitical area.
a. Hospitals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Daycare/Headstart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Elementary schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Middle schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. High schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. WIC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. STD/HIV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Long-term care facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Health plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. IHS/Tribal/Urban	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Veterans administration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Family planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

m. Medicaid	<input type="radio"/>							
n. Medicare	<input type="radio"/>							
o. Retail clinic/Pharmacy	<input type="radio"/>							

Report type	114. In 2016, did your IIS provide a predefined / automated report on the following topics?	115. If yes, in 2016 who was able to run these reports? Please check all applicable:
Immunization coverage by geography (e.g. zip code, county)	a. Yes / No	a. IIS staff / Immunization providers / Other users
Immunization coverage by provider site	b. Yes / No	b. IIS staff / Immunization providers / Other users
Vaccine usage Logic guidance: vaccine usage refers to a report of doses administered, such as by age or vaccine	c. Yes / No	c. IIS staff / Immunization providers / Other users
Line List (e.g., to facilitate a vaccine recall, outbreak management)	d. Yes / No	d. IIS staff / Immunization providers / Other users
Healthcare Effectiveness Data and Information Set (HEDIS) Logic guidance: For more information on HEDIS see http://www.ncqa.org/HEDISQualityMeasurement/WhatIsHEDIS.aspx and http://www.ncqa.org/portals/0/Childhood%20Immunization%20Status.pdf	e. Yes / No	e. IIS staff / Immunization providers / Other users

116. If your IIS needed to run a report not previously defined in the above table, can immunization program staff construct and run this report without assistance from an external party (e.g., IIS vendor)?

Always / Most of the time / Sometimes / Never

Logic guidance for question 117: Access credentials for individuals or parents/guardians may be granted through a screening process facilitated by the immunization program / IIS personnel and/or by other authorized users of the IIS (e.g. providers). A “yes” answer to question 117 means that regardless of the mechanism for granting access, individuals or parents/guardians are able to access their own records without assistance from immunization program or provider staff.

117. Does your IIS provide the means for individuals or parents/guardians with custodial rights to access their immunization records without staff involvement? Yes / No

Notes for Functional Standard 5

Please provide any relevant notes or comments for data provided for Functional Standard 5.

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Functional Standard 6: Promote vaccine safety in public and private provider settings

6.1 Provide the necessary reports and/or functionality to facilitate vaccine recalls when necessary, including the identification of recipients by vaccine lot, manufacturer, provider, and/or time frame

6.2 Facilitate reporting and/or investigation of adverse events following immunization.

118. Do you have a link to the Vaccine Adverse Event Reporting System (VAERS) form in your IIS? Yes / No

119. Does your program use the IIS to investigate a vaccine adverse event? Yes / No

Notes for Functional Standard 6	Please provide any relevant notes or comments for data provided for Functional Standard 6.
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