Section IX. 2017 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 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 2017

The IISAR underwent significant revisions in 2017 to address the new Functional Standards for IIS available at: https://www.cdc.gov/vaccines/programs/iis/func-stds.html. While there are many new questions, there are some old questions that have subtle logic guidance changes. Please be sure to carefully review the logic guidance in all sections in order to respond to their new specifications as accurately as possible.

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 IISSB 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 30, 2018; the year of performance is calendar year 2017. CDC IISSB staff will
 contact each IIS after March 30 with questions and/or comments about the report and data submitted for
 calendar year 2017. After March 30, 2018, the submission data will be corrected and revised. Any revised
 submissions from awardees should correct issues with the submitted data as of March 30 ONLY. When
 submitting revisions, do NOT submit additional 2017 data that were uploaded AFTER the March 30 cutoff date.
- Please contact Terence Ng, CDC/NCIRD/IISSB (contractor) at VFK5@cdc.gov or Lauren Shaw, CDC/NCIRD/IISSB at ILV6@cdc.gov if you need clarification on a question or answer choice.

- For additional guidance on Patient Active/Inactive Status in Immunization Information Systems, see the AIRA guide here: https://www.immregistries.org/resources/FINAL_AIRA_PAIS_Guide_FullFormat.pdf
- For additional guidance on using dates to calculate a period of time, the Clinical Decision Support for Immunization (CDSi): Logic Specification for ACIP Recommendations can be referenced here: https://www.cdc.gov/vaccines/programs/iis/cdsi.html

CONTACT INFORMATION AND SCOPE OF IIS

Logic Guidance:

Q.1 – Q.5 are required to be completed by all awardees, including those with IIS in transition or temporarily inactive. List ONLY government employee contacts in Q.3 and Q.4. 1. Awardee 2. Name of person(s) submitting this report_____ 3. Programmatic IIS contact person (a manager or administrator who coordinates IIS activities): e. Phone:______ f. Ext: _____ a. First Name: _____ g. Email:_____ b. Last Name: _____ c. Title: _____ d. Affiliation: h. Check if contact person for questions about this report 4. Technical IIS contact person (coordinator of IIS software and/or hardware): Check if same as programmatic contact (if yes, autopopulate a-g) e. Phone:______ f. Ext: _____ a. First Name: _____ b. Last Name: _____ g. Email:_____ c. Title: _____ d. Affiliation:

h. Check if contact person for questions about this report

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

Age Groups

Logic Guidance:

The IISAR has been programmed to match the age groups below. Some questions are only relevant for defined age groups. Therefore, the number of required questions may be reduced depending on which age groups are included in your IIS.

When determining if an age group is included in your IIS, consider the age range that your IIS is authorized to collect regardless of the completeness of data captured for that age group.

- **6.** Which age groups are included in your IIS? Select one:
 - a) Birth through 6 years of age
 - b) Birth through 18 years of age
 - c) All ages, including adults
 - d) Other (specify)_____

ESSENTIAL INFRASTRUCTURE STANDARDS

FUNCTIONAL STANDARD 1: The IIS contains complete and timely demographic and immunization data for children, adolescents, and adults residing or immunized within its jurisdiction.

- 1.1 The IIS establishes a record in a timely manner from sources such as vital records or birthing hospitals for each child born in its jurisdiction or that resides in its jurisdiction at the date of birth.
- 1.2 The IIS identifies records created from vital records.
- 1.3 The IIS contains a complete consolidated demographic record and vaccination history for every child, adolescent, and adult currently residing in the jurisdiction.
- 1.4 The IIS assures that all participating provider sites submit vaccination records and demographic information to the IIS in a timely fashion.
- 1.5 The IIS ensures that submitted vaccination and demographic data are processed and viewable in a timely manner.
- 1.6 The IIS assures the receipt, processing, and storage of demographic and vaccination data elements as endorsed by CDC.
- 1.7 The IIS periodically reviews the data elements endorsed by CDC and updates the IIS accordingly.

Timeliness of Birth Records in IIS

Logic Guidance:

- For newborns born January 1 through December 31, 2017
- 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.
- Reported numbers of newborn records established from Vital Records and other record sources should be mutually exclusive.
- 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.

In this section:

Use the table below to identify newborns to include in the assessment:

Newborns who are considered	Include	Exclude
Residence in jurisdiction is confirmed or received an immunization from a provider organization within the jurisdiction and address is unknown	Х	
Inactive, outside jurisdiction • Does not reside in the jurisdiction		Х
 Unknown, no address – no vaccination Address is unknown and IIS has never received vaccination information 	Х	
Unknown, no activity for extended period of time Has not received demographic and/or immunization information for an extended period of time	х	

 Note that the "extended period of time" could be defined differently by each IIS 	
DeceasedDeceased at the time of query	Х

7. For children born January 1 through December 31, 2017 in the IIS's jurisdiction, 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 (autocalculated)
≤30 days	a.	b.	c. (a+b)/(m+n)
>30 days - ≤45 days	d.	e.	f. (d+e)/(m+n)
>45 days - ≤60 days	g.	h.	i. (g+h)/(m+n)
>60 days	j.	k.	I. (j+k)/(m+n)
Total (auto-calculated)	m	n	

Timeliness of vaccination records in IIS

Logic Guidance

- The period of timeliness corresponds to the time between the date of administration of the vaccine dose indicated on the vaccination record and the date the vaccination record was posted to production in the IIS.
- Age at which vaccine is administered should be determined as of the date of vaccine administration during CY2017.
- Depending on the date of birth, vaccines administered to an individual may fall within two different age ranges.
 - Example: Vaccines administered to a child born on November 25, 2010 would be included in the "0 through 6" age range if administered before November 25, 2017, since the child would be 6 years and one day before their 7th birthday. Vaccines administered on or after November 25, 2017 would be included in the "0 through 18" age range because they were administered when the child then turned 7 years old.
- Timeframes listed refer to calendar days.

• In this section:

Use the table below to identify individuals to include in the assessment:

Vaccination records for individuals who are considered	Include	Exclude
Active		
Residence in jurisdiction is confirmed or received an immunization from a	Х	
provider organization within the jurisdiction and address is unknown		
Inactive, outside jurisdiction		Х
Does not reside in the jurisdiction		Χ
Unknown, no address – no vaccination		V
Address in unknown and IIS has never received vaccination information		Х
Unknown, no activity for extended period of time		
Has not received demographic and/or immunization for an extended period		
of time	Х	
 Note that the "extended period of time" could be defined differently 		
by each IIS		
Deceased		V
Deceased at the time of query		Х

After identifying individuals in the table above, use this table to determine the appropriate **vaccination records** to include in the assessment:

General vaccination inclusions/exclusions	Include	Exclude
Vaccinations administered in CY2017 for all persons in the IIS	X	
Doses that were administered before January 1, 2018, including those recorded after December 31, 2017	Х	
All doses (valid and invalid)	X	
H1N1 vaccines administered and demographic records belonging to those with only an H1N1 vaccination record		Х
Travel vaccines (yellow fever, typhoid, etc.) See: www.nc.cdc.gov/travel/page/yellowbook-home		Х
Historical vaccinations		Χ
Non-vaccine products (e.g. immune globulins, PPD)		Х

8. In 2017, was your registry able to capture the date the vaccination record was posted to production? Yes/No

For vaccinations administered in CY2017 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 aged 0 through 6 years (i.e. non-historical) during CY2017	Number of vaccine doses administered to persons aged 0 through 18 years (i.e. non-historical) during CY2017	Number of vaccine doses administered to persons of all ages (lifespan) (i.e. non- historical) during CY2017	Percentage of doses reported for children aged 0 through 6 years for the specified timeframe (auto- calculated)	Percentage of doses reported for persons aged 0 through 18 years for the specified timeframe (autocalculated)	Percentage of doses reported for persons of all ages (lifespan) for the specified timeframe (autocalculated)
≤3 days	а	b	С	p (a/m)	q (b/n)	r (c/o)
>3 days-	d	е	f	s (d/m)	t (e/n)	u (f/o)
≤14 days						
>14 days-	g	h	i	v (g/m)	w (h/n)	x (i/o)
≤30 days						
>30 days		k	1	y (j/m)	z (k/n)	aa (I/o)
Total (auto- calculated)	m	n	0			

Newborn Population Capture

Logic Guidance:

- For newborns born January 1 through December 31, 2017
- 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.
- In this section:

Use the table below to identify newborns to include in the assessment:

General demographic inclusions/exclusions	Include	Exclude
Newborns who currently are known to reside in your jurisdiction at the time of query,	V	
regardless of residence at the time of birth.	^	

After identifying newborns in the table above, use this table to further identify newborns to include in the assessment:

Newborns who are considered	Include	Exclude
Active		
 Residence in jurisdiction is confirmed or received an immunization from a provider organization within the jurisdiction and address is unknown 	Х	
Inactive, outside jurisdiction		Х
Does not reside in the jurisdiction		^
Unknown, no address – no vaccination		
 Address in unknown and IIS has never received vaccination information 	X	
Unknown, no activity for extended period of time		
 Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each IIS 	x	
Deceased		V
Deceased at the time of query		Х

- **9.** Number of children in the jurisdiction born from January 1 through December 31, 2017 (2017 Census data)
- **10.** Number of patient records created in your IIS from Vital Records for children born from January 1 through December 31, 2017 who resided in your jurisdiction at the time of query._____
- 11. Number of patient records created in your IIS from sources other than Vital Records for children born from January 1 through December 31, 2017 who resided in your jurisdiction at the time of query. ______
 - a. Percentage of children in the IIS born from January 1 through December 31, 2017 with records created in the IIS from all sources (Q.10+Q.11/Q.9)

Enrollment in IIS (0-6 years, 0-18 years, lifespan)

Logic Guidance:

- Q.13: For individuals born from January 1, 2011 through December 31, 2017
- Q.15: For individuals born from January 1, 1999 through December 31, 2017
- Q.17: For individuals born on or before December 31, 2017

Enrollment:

In this section:

Use the table below to identify individuals to include in the assessment:

Individuals who are considered	Include	Exclude
Active		
Residence in jurisdiction is confirmed or received an immunization from a provider	Х	
organization within the jurisdiction and address is unknown		
Inactive, outside jurisdiction		V
Does not reside in the jurisdiction		Х
Unknown, no address – no vaccination	V	
 Address in unknown and IIS has never received vaccination information 	X	
Unknown, no activity for extended period of time		
 Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each 	Х	
Deceased		
Deceased at the time of query		Х

After identifying individuals in the table above, use this table to further identify individuals to include in the assessment:

General demographic inclusions/exclusions	Include	Exclude
Demographic records belonging to those with only an H1N1 vaccination record		Х

- **12.** Number of individuals aged 0 years through 6 years in the jurisdiction at the time of query (2017 Census data)
- **13.** Number of individuals aged 0 years through 6 years (born from January 1, 2011 through December 31, 2017) in both in your jurisdiction AND in your IIS_____
 - a. 0–6 years enrollment: Percentage of individuals aged 0 years through 6 years in both your jurisdiction AND in your IIS (Q.13/Q.12)
- 14. Number of individuals aged 0 years through 18 years in the jurisdiction at the time of query (2017 Census data)
- **15.** Number of individuals aged 0 years through 18 years (born from January 1, 1999 through December 31, 2017) in both in your jurisdiction AND in your IIS______
 - a. 0–18 years enrollment: Percentage of individuals aged 0 years through 18 years in both your jurisdiction AND in your IIS (Q.15/Q.14)

17. Number of individuals of all ages (born on or before December 31, 2017) in both in your jurisdiction A	ND in your
IIS	

a. Lifespan enrollment: Percentage of individuals of all ages in both your jurisdiction AND in your IIS (Q.17/Q.16)

16. Number of individuals of all ages in the jurisdiction at the time of query (2017 Census data)

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For children born from January 1, 2012 through August 31, 2017

Enrollment among children:

• In this section:

Use the table below to identify children to include in the enrollment assessment:

Individuals who are considered	Include	Exclude
Active		
Residence in jurisdiction is confirmed or received an immunization from a provider	Х	
organization within the jurisdiction and address is unknown		
Inactive, outside jurisdiction		Х
Does not reside in the jurisdiction		^
Unknown, no address – no vaccination		
 Address in unknown and IIS has never received vaccination information 	Х	
Unknown, no activity for extended period of time		
 Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each IIS 	х	
Deceased		Х
Deceased at the time of query		^

After identifying children in the table above, use this table to further identify children to include in the assessment:

General demographic inclusions/exclusions	Include	Exclude
Children enrolled in the IIS, even if they only have travel vaccines, non-vaccine products, or	V	
no vaccines in the vaccine record	^	

Participation among enrolled children:

• In this section:

After identifying children for enrollment using the tables above, use this table to further identify children with the following vaccinations:

General vaccination inclusions/exclusions		Exclude
All doses (valid and invalid) administered before January 1, 2018, including those recorded in	Х	
the IIS after December 31, 2017	^	
Travel vaccines (yellow fever, typhoid, etc.) See:		V
wwwnc.cdc.gov/travel/page/yellowbook-home		Х
Non-vaccine products (e.g. immune globulins, PPD)		Х

- **18.** Number of children aged 4 months through 5 years in the jurisdiction at the time of query (2017 Census data)
- **19.** Number of children aged 4 months through 5 years (born from January 1, 2012 through Aug 31, 2017) in both in your jurisdiction at the time of query AND in your IIS______

- a. Child enrollment: Percentage of children aged 4 months through 5 years in both your jurisdiction at the time of query AND in your IIS (Q.19/Q.18)
- **20.** Number of children in Q.19 (children born from January 1, 2012 through Aug 31, 2017 that are both in your jurisdiction at the time of query AND in your IIS) that have 2 or more vaccine doses recorded in your IIS (Healthy People 2020 objective) ______
 - a. Child participation: Percentage of children aged 4 months through 5 years in your jurisdiction at the time of query and IIS that have 2 or more vaccine doses recorded in your IIS (Q.20/Q.18)

Adolescent Participation in IIS (aged 11 through 17 years)

Logic Guidance — Adolescent participation in IIS

For adolescents born from January 1, 2000 through December 31, 2006

Enrollment among adolescents:

• In this section:

Use the table below to identify adolescents to include in the enrollment assessment:

Individuals who are considered	Include	Exclude
Residence in jurisdiction is confirmed or received an immunization from a provider organization within the jurisdiction and address is unknown	х	
Inactive, outside jurisdiction • Does not reside in the jurisdiction		х
 Unknown, no address – no vaccination Address in unknown and IIS has never received vaccination information 	Х	
Unknown, no activity for extended period of time Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each IIS	Х	
Deceased • Deceased at the time of query		Х

After identifying adolescents in the table above, use this table to further identify adolescents to include in the assessment:

General demographic inclusions/exclusions		Exclude
Adolescents enrolled in the IIS, even if they only have travel vaccines, non-vaccine products, or no vaccines in the vaccine record	Х	
Demographic records belonging to adolescents with only an H1N1 vaccination record		Х

Participation among enrolled adolescents:

• In this section:

After identifying adolescents for enrollment using the tables above, use this table to further identify adolescents

General vaccination inclusions/exclusions	Include	Exclude
All doses (valid and invalid) administered before January 1, 2018, including those recorded	Χ	
in the IIS after December 31, 2017		
Adolescent doses ONLY if they were administered from age 9 through 17 years. Only	Χ	
include: Tdap/Td, HPV, meningococcal (any serotype), seasonal influenza, pneumococcal,		
HepA, HepB, polio, MMR, and varicella		
(www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html#printable)		
Doses administered to adolescents before the adolescent's 9th birthday		Χ
H1N1 vaccines administered		Χ

Travel vaccines (yellow fever, typhoid, etc.) See:	Х
wwwnc.cdc.gov/travel/page/yellowbook-home	
Non-vaccine products (e.g. immune globulins, PPD)	Х

- **21.** Number of adolescents aged 11 through 17 years in your jurisdiction at the time of query (2017 Census Data)
- **22.** How many adolescents aged 11 through 17 years (born from January 1, 2000 through December 31, 2006) are both in your jurisdiction at the time of query AND in your IIS? _____
 - a. Adolescent enrollment: Percentage of adolescents aged 11 through 17 years that are both in your jurisdiction at the time of query AND in your IIS (Q.22/Q.21)
- 23. How many adolescents in Q.22 (adolescents born from January 1, 2000 through December 31, 2006 that are both in your jurisdiction at the time of query AND in your IIS) have 2 or more adolescent vaccine doses administered from age 9 through 17 years recorded in your IIS? (Healthy People 2020 objective) ______
 - a. Adolescent participation: Percentage of adolescents aged 11 through 17 years in your jurisdiction at the time of query and IIS that have 2 or more adolescent vaccine doses recorded in your IIS (Q.23/Q.21)

Adult Participation in IIS (aged 19 years and older)

Logic Guidance — Adult Participation in IIS

For adults born on or before December 31, 1998

Enrollment among adults:

In this section:

Use the table below to identify adults to include in the enrollment assessment:

Individuals who are considered	Include	Exclude
Active		
Residence in jurisdiction is confirmed or received an immunization from a provider	Х	
organization within the jurisdiction and address is unknown		
Inactive, outside jurisdiction		V
Does not reside in the jurisdiction		Х
Unknown, no address – no vaccination	vn, no address – no vaccination	
 Address in unknown and IIS has never received vaccination information 	X	
Unknown, no activity for extended period of time		
Has not received demographic and/or immunization for an extended period of time	x	
 Note that the "extended period of time" could be defined differently by 	_ ^	
each IIS		
Deceased		V
 Deceased at the time of guery 		Х

After identifying adults in the table above, use this table to further identify adults to include in the assessment:

General demographic inclusions/exclusions	Include	Exclude
Adults enrolled in the IIS, even if they only have travel vaccines, non-vaccine products, or no vaccines in the vaccine record	Х	
Demographic records belonging to adults with only an H1N1 vaccination record		Χ

Participation among enrolled adults:

• In this section:

After identifying adults for enrollment using the tables above, use this table to further identify adults with the following vaccinations:

General vaccination inclusions/exclusions	Include	Exclude
All doses (valid and invalid) administered before January 1, 2018, including those recorded in	Х	
the IIS after December 31, 2017		
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	х	
(any serotype), HepA, and HepB	^	
https://www.cdc.gov/vaccines/schedules/downloads/adult/adult-schedule.pdf		
Doses administered to adolescents before 19 years of age		Χ
H1N1 vaccines administered		Χ
Travel vaccines (yellow fever, typhoid, etc.) See:		Х
https://wwwnc.cdc.gov/travel/page/yellowbook-		۸
Non-vaccine products (e.g. immune globulins, PPD)		Χ

- **24.** Number of adults aged 19 years and older in your jurisdiction at the time of query (2017 Census data)
- **25.** How many adults aged 19 years and older (born on or before December 31, 1998) are both in your jurisdiction at the time of query AND in your IIS?
 - a. Adult enrollment: Percentage of adults aged 19 years and older that are both in your jurisdiction at the time of query AND in your IIS (Q.25/Q.24)
- **26.** How many adults in Q.25 (born on or before December 31, 1998 who are both in your jurisdiction at the time of query AND in your IIS) have 1 or more adult vaccine dose(s) administered at 19 years and older recorded in your IIS?
 - a. Adult participation: percentage of adults aged 19 years and older in your jurisdiction at the time of query and IIS that have 1 or more adult vaccine dose(s) recorded in your IIS (Q.26/Q.24)

4:3:1:3:3:1:4 Series Coverage (for children aged 19 through 35 months)

Logic Guidance:

- For children born from January 1, 2015 through May 31, 2016
- **Coverage** is defined as the number of individuals in a certain age group who received a vaccination(s) divided by the Census-based estimate of persons in that age group in your jurisdiction. Jurisdiction is defined as the area that contains the population of children residing in geographic location covered by the IIS.
- In this section:

Use the table below to identify children to include in the assessment:

Childre	n who are considered	Include	Exclude
Active			
•	Residence in jurisdiction is confirmed or received an immunization from a provider organization within the jurisdiction and address is unknown	Х	
Inactiv	e, outside jurisdiction		Х
•	Does not reside in the jurisdiction		^
Unknown, no address – no vaccination			>
•	Address in unknown and IIS has never received vaccination information		Х
Unkno	wn, no activity for extended period of time		
•	Has not received demographic and/or immunization for an extended period of time O Note that the "extended period of time" could be defined differently by each IIS	х	
Deceas	ed		V
•	Deceased at the time of query		Х

After identifying children using the tables above, use this table to further identify children with the following vaccinations:

General vaccination inclusions/exclusions	Include	Exclude
Both valid and invalid doses.	Χ	
Doses administered before January 1, 2018, including those recorded after December 31, 2017	Х	
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.	Х	
† When counting Varicella, only include those who received 1 or more dose of Varicella. Do not count history of disease.		

All Doses

	aber of children aged 19 through 35 months in your jurisdiction at the time of query (2017 sus data)	
	4:3:1:3:3:1:4 series coverage percentage for children aged 19 through 35 months (2017 data)	
	many children born during January 1, 2015 through May 31, 2016 that are in your diction at the time of query have received the complete 4:3:1:3:3:1:4 series?	
a.	Coverage – percentage of children aged 19 through 35 months in the population that have completed the 4:3:1:3:3:1:4 series (Q.29/Q.27)	Q.29/Q.27 (Autocalculated)
b.	NIS–IIS Point Estimate Difference (2017 data) – NIS 4:3:1:3:3:1:4 series coverage percentage minus IIS 4:3:1:3:3:1:4 series coverage percentage (Q.28 – Q.29)	Q.28 – Q.29 (Autocalculated)

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

Logic Guidance — **Adolescent Immunization Coverage in IIS**

- For adolescents born from January 1, 2000 through December 31, 2004
- **Coverage** is defined as the number of individuals in a certain age group who received a vaccination(s) divided by the census-based estimate of persons in that age group in your jurisdiction. Jurisdiction is defined as the area that contains the population of adolescents residing in the jurisdiction covered by the IIS.

In this section:

Use the table below to identify adolescents to include in the assessment:

Adolescents who are considered	Include	Exclude
Residence in jurisdiction is confirmed or received an immunization from a provider organization within the jurisdiction and address is unknown	x	
Inactive, outside jurisdiction • Does not reside in the jurisdiction		Х
 Unknown, no address – no vaccination Address in unknown and IIS has never received vaccination information 		Х
Unknown, no activity for extended period of time Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each IIS	х	
Deceased ● Deceased at the time of query		Х

After identifying adolescents using the tables above, use this table to further identify adolescents with the following vaccinations:

General vaccination inclusions/exclusions	Include	Exclude
Both valid and invalid doses	Х	
Tdap/Td vaccines	X	
Any DT/DTP/DTaP-containing vaccines* given at or after age 7 years *Doses reported as DT/DTP/DTaP-containing that were administered at or after age 7 years could reflect misreported Tdap doses.	Х	
Doses administered before January 1, 2018, including those recorded after December 31, 2017	Х	
Doses administered at any time before the adolescent's 18th birthday	Х	

	All Doses
30. Number of adolescents aged 13 through 17 years in your jurisdiction at the time of query	
(2017 Census data)	
31. NIS Tdap/Td coverage percentage for adolescents aged 13 through 17 (2017 NIS data)	

32. How	many adolescents aged 13 through 17 years (born from January 1, 2000 through	
December 31, 2004) that are both in your jurisdiction at the time of query AND in your IIS		
have	at least one dose of Tdap/Td?	
a.	Coverage — Percentage of adolescents aged 13 through 17 years in the population	Q.32/Q.30
	that have at least one dose of Tdap/Td. (Q.32/Q.30)	(Autocalculated)
b.	NIS–IIS Point Estimate Difference (2017 data) – NIS Tdap/Td coverage percentage	Q.31 – Q.32
	minus IIS Tdap/Td coverage percentage (Q.31 – Q.32)	(Autocalculated)

Adult Influenza Coverage (aged 18 and older)

Logic Guidance — Adult Influenza Coverage in IIS

- For adults born on or before December 31, 1999
- For the half flu vaccination season of July 1, 2017 December 31, 2017
- **Coverage** is defined as the number of individuals in a certain age group who received a vaccination(s) divided by the census-based estimate of persons in that age group in your jurisdiction. Jurisdiction is defined as the area that contains the population of adults residing in the jurisdiction covered by the IIS.

In this section:

Use the table below to identify adults to include in the assessment:

Adults who are considered	Include	Exclude
Residence in jurisdiction is confirmed or received an immunization from a provide organization within the jurisdiction and address is unknown	r χ	
Inactive, outside jurisdiction • Does not reside in the jurisdiction		Х
Unknown, no address – no vaccination • Address in unknown and IIS has never received vaccination information		Х
 Unknown, no activity for extended period of time Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each IIS 	e X	
Deceased • Deceased at the time of query		х

After identifying adults using the tables above, use this table to further identify adolescents with the following vaccinations:

General vaccine inclusions/exclusions	Include	Exclude
Both valid and invalid doses	Х	
Doses of adult influenza administered on or after July 1, 2017	Х	
Doses administered before January 1, 2018, including those recorded after December 31, 2017	Х	
Doses administered at any time on or after the adult's 18th birthday	Х	
Doses of influenza administered to a patient during the 2017 half flu vaccination season before the patient's 18 th birthday		Х

	All Doses
33. Number of adults 18 years or older in your jurisdiction at the time of query (2017 Census	
data)	
34. BRFSS influenza coverage percentage for adults 18 years or older (2017 BRFSS data)	

bot infl	w many adults aged 18 years or older (born on or before December 31, 1999) that are h in your jurisdiction at the time of query AND in your IIS have at least one dose of adult uenza vaccine administered during the 2017 half flu vaccination season (July 1, 2017 – tember 31, 2017) at the age of 18 or older?	
a.	Coverage — Percentage of adults aged 18 years or older that have at least one dose of adult influenza administered during the 2017 half flu vaccination season (July 1, 2017 – December 31, 2017) (Q.35/Q.33)	(Q.35/Q.33) (Auotcalculated)
<i>b</i> .	BRFSS–IIS Point Estimate Difference (2017 data) – BRFSS influenza coverage percentage minus IIS influenza coverage percentage (Q.34 – Q.35)	Q.34 – Q.35 (Autocalculated)

Logic Guidance: Data Elements — Vaccination Records

- These questions pertain to all **vaccinations** administered from January 1, 2017 through December 31, 2017, for:
 - Children aged 0 through 6 years, born from January 1, 2011 through December 31, 2017
 - o Individuals aged 0 years through 18 years born from January 1, 1999 through December 31, 2017
 - o All individuals (lifespan) aged 0 and above, born on or before December 31, 2017
- Please fill in the following on each data element field included in your IIS database.
- In this section:

Use the table below to identify individuals to include in the assessment:

Vaccination records for individuals who are considered	Include	Exclude
 Residence in jurisdiction is confirmed or received an immunization from a provider organization within the jurisdiction and address is unknown 	х	
Inactive, outside jurisdiction • Does not reside in the jurisdiction		Х
 Unknown, no address – no vaccination Address in unknown and IIS has never received vaccination information 		Х
 Unknown, no activity for extended period of time Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each IIS 	х	
DeceasedDeceased at the time of query		Х

After identifying individuals in the table above, use this table to determine the appropriate **vaccination records** to include in the assessment:

General vaccination record inclusions/exclusions Inclu		
H1N1 vaccines administered and demographic records belonging to those with only an H1N1 vaccination record		X
Travel vaccines (yellow fever, typhoid, etc.) See: https://wwwnc.cdc.gov/travel/page/yellowbook-		Х
Historical vaccinations		X
Non-vaccine products (e.g. immune globulins, PPD)		X

36.	What is the number of vaccination records in the IIS for vaccines administered in CY2017 to children born from
	January 1, 2011 through December 31, 2017?
37.	What is the number of vaccination records in the IIS for vaccines administered in CY2017 to individuals born from
	January 1, 1999 through December 31, 2017?
38.	What is the number of vaccination records in the IIS for vaccines administered in CY2017 to individuals born on or
	before December 31, 2017?

Vaccination data elements	Vaccines administered in 2017 to children aged 0–6 years with field populated with data	Vaccines administered in 2017 to individuals aged 0– 18 years <u>with field populated</u> <u>with data</u>	Vaccines administered in 2017 to all individuals (lifespan) <u>with field</u> populated with data
39. Vaccine Product Type Administered			
Logic guidance: Vaccine Type can refer to CVX, CPT, or NDC. If a record is populated with an acceptable value for any of these product type codes, consider the field populated.	a. # b. % (Autocalculated w/Q.36)	c. # d. % (Autocalculated w/ Q.37)	e. # f. % (Autocalculated w/ Q.38)
40. Vaccination Administration Date			
Logic guidance: if the value for administration date is in the future or not a real date, consider the field not populated.	a. # b. % (Autocalculated w/Q.36)	c. # d. % (Autocalculated w/ Q.37)	e. # f. % (Autocalculated w/ Q.38)
41. Vaccine Manufacturer Name			
Logic guidance: if the value for manufacturer is "unknown," consider the field not populated.	a. # b. % (Autocalculated w/Q.36)	c. # d. % (Autocalculated w/ Q.37)	e. # f. % (Autocalculated w/ Q.38)
42. Vaccine Lot Number			
Logic guidance: if the value is unacceptable for your IIS (e.g. vaccine type, "N/A", "Missing"), consider the field not populated.	a. # b. % (Autocalculated w/Q.36)	c. # d. % (Autocalculated w/ Q.37)	e. # f. % (Autocalculated w/ Q.38)

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

Logic Guidance: Vaccination 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 and c. 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, 2017** to 0–18 year olds (**date of birth January 1, 1999 through December 31, 2017**) as only this age group is eligible for VFC.
 - o Note: If your registry is not authorized to serve individuals of this entire age range, respond to the question with individuals your registry <u>is</u> authorized to serve.
- A provider is counted as VFC provider if enrolled as such during the entire calendar year

• In this section:

Use the table below to identify individuals to include in the assessment:

Vaccination records for individuals who are considered	Include	Exclude	
Residence in jurisdiction is confirmed or received an immunization from a provider organization within the jurisdiction and address is unknown	х		
Inactive, outside jurisdiction • Does not reside in the jurisdiction			
 Unknown, no address – no vaccination Address in unknown and IIS has never received vaccination information 			
 Unknown, no activity for extended period of time Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each IIS 			
Deceased • Deceased at the time of query		Х	

After identifying individuals in the table above, use this table to determine the appropriate vaccination records to include in the assessment:

General vaccination record inclusions/exclusions Include		
H1N1 vaccines administered and demographic records belonging to those with only an H1N1 vaccination record		Х
Travel vaccines (yellow fever, typhoid, etc.) See: https://wwwnc.cdc.gov/travel/page/yellowbook-		Х
Historical vaccinations		Χ
Non-vaccine products (e.g. immune globulins, PPD)		X

Vaccination data element	Field status (check one)	VFC providers only	у
43. VFC/Awardee Program Vaccine Eligibility at Dose Level Examples: Not VFC eligible VFC eligible — Medicaid VFC eligible — Uninsured VFC eligible — American Indian/Alaskan Native VFC eligible — Underinsured (FQHC/RHC/Provider with delegated authority) Eligible for a non-VFC funding source (e.g., state or locally defined)	a. □ Field present □ No field	b. # numerator (number of vaccination records with vaccine date of administration from January 1 through December 31, 2017, administered to persons aged 0 through 18 years (DOB January 1, 1999 through December 31, 2017), by VFC providers only with this field populated with data) c. # denominator (number of vaccination records administered to persons aged 0 through 18 years (DOB January 1, 1999 through December, 31, 2017) by VFC providers only in the IIS in 2017)	d. Autocalculated percent vaccination records with vaccine date of administration from January 1 through December 31, 2017 administered to persons aged 0 through 18 years with field populated with data (Q.43b/c)

Data Elements - Patient Records

Logic Guidance: Data Elements – Patient Records

- For children with date of birth from January 1 through December 31, 2017
- Please fill in the following on each data element field included in your IIS database.
- In this section:

Use the table below to identify newborns to include in the assessment:

Newborns who are considered	Include	Exclude
Active		
Residence in jurisdiction is confirmed or received an immunization from a provider	Х	
organization within the jurisdiction and address is unknown		
Inactive, outside jurisdiction		V
Does not reside in the jurisdiction		Х
Unknown, no address – no vaccination		
 Address in unknown and IIS has never received vaccination information 	X	
Unknown, no activity for extended period of time		
Has not received demographic and/or immunization for an extended period of time	X	
 Note that the "extended period of time" could be defined differently by each 	^	
IIS		
Deceased		V
Deceased at the time of query		^

Patient-level data elements	Field Status (check one)	Number of child records with date of birth from January 1 through December 31, 2017, <u>with field</u> <u>populated with data</u>	Percentage of child records with date of birth from January 1 through December 31, 2017 with field populated with data. Denominator derived from Q.10+Q.11 (auto- calculated)
44. Patient Name Logic guidance: if the value is unacceptable for your IIS (e.g. "Baby Boy"), consider the field not populated.	a. First Name ☐ Field present ☐ No field b. Last Name ☐ Field present ☐ No field	c. # d. #	e. <i>Q.44/(Q.10+Q.11)</i> f. –
45. Patient Date of Birth Logic guidance: if the value for birthdate is in the future or not a real date, consider the field not populated.	a. □ Field present □ No field	b. #	C
46. Patient Gender Logic guidance: if the value for gender is "unknown," consider the field not populated. If the value is "other", consider the field to be populated.	a. □ Field present □ No field	b. #	C

47. Address (Street, City, State, ZIP code) Logic guidance: if there is more than one address listed per child, only include one per child record, such as the most recent. Consider Street to be populated if the field is populated with the patient's P.O. Box number.	a. Street: Field present No field b. City: Field present No field c. State: Field present No field d. ZIP code: Field present No field	e. # Street f. # City g. # State h. # ZIP code	i. – j. – k. – l. –
48. Mother's Name Logic guidance: If Mother's Name can be determined from Responsible Person Name elements, do so and consider it having Mother's First and/or Last Name field/s present. Count any Responsible Person Name information for mothers toward Mother's Name fields.	a. First Name ☐ Field present or derived ☐ No field b. Last Name ☐ Field present or derived ☐ No field	c. # Mother's First Name d. # Mother's Last Name	e. – f. –
49. Patient Telephone Number Logic guidance: refers to the telephone number of either the patient or the parent/responsible person	a. □ Field present □ No field	b. #	C

50. In 2017, my IIS stored or derived all CDC-endorsed data elements. Yes/No

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

FUNCTIONAL STANDARD 8: The IIS exchanges data with health information systems in accordance with current interoperability standards endorsed by CDC for message content, format, and transport.

- 8.1 The IIS supports the Simple Object Access Protocol (SOAP) standard Interface, Web Services Definition Language (WSDL), or other transport solutions as endorsed by CDC.
- 8.2 The IIS receives submissions and returns acknowledgements consistent with the current CDC-endorsed HL7 Implementation Guide.
- 8.3 The IIS receives queries from, and sends responses to, health information systems consistent with the current CDC-endorsed HL7 Implementation Guide.

Logic Guidance

Q.52-54:

• In order for testing to be considered **independent**, it must be conducted by an external entity (e.g., the American Immunization Registry Association) **OR**, the testing must be conducted through testing tools developed by the National Institute of Standards and Technology.

Q.53 and Q.54:

- "Conformance" indicates that the IIS passed all tests and met all standards, except where any deviation is as a
 result of documented state or local policy. Any deviations as a result of other factors does not meet the definition
 of conformance.
- **51.** In 2017, did your IIS support the SOAP Standard Interface 1.2 specification, Web Services Definition Language (WSDL) in production, as endorsed by CDC? Yes/No
- **52.** If yes to Q.51, was your IIS's message transport functionality independently tested? Yes/No
- **53.** If yes to Q.52, did your IIS pass tests demonstrating conformance in the following areas (select all that apply):
 - a. Connectivity Yes/No
 - **b.** Submit Single Message Yes/No
 - c. Security Fault Yes/No

54.

HL7 v2.5.1 Release 1.5 Standard Messages						
The IIS received and		The ability to	The IIS has been independently determined to be able			
	processed the	receive this message	to receive the following message types that conform			
	following message	type has been	to the HL7 v2.5.1 release 1.5 standard. Any observed			
Message Type	types (in production)	independently	deviation from the national standard is a necessary			
Received	during 2017	tested	result of documented state or local policy			
QBP a. □ Yes □ No b. □ Yes		b. ☐ Yes ☐ No	c. □ Yes □ No			
VXU d. □ Yes □ No		e. □ Yes □ No	f. ☐ Yes ☐ No			
		The ability to send	The IIS has been independently determined to be able			
The IIS sent the		this message type	to send the following message types that conform to			
following message has been		has been	the HL7 v2.5.1 release 1.5 standard. Any observed			
Message Type	types (in production)	independently	deviation from the national standard is a necessary			
Sent	ent during 2017 tested		result of documented state or local policy			

RSP	j. □ Yes □ No	k. □ Ye	s 🗆 No	I. □ Yes □ No
Notes for Fund	ctional Standard 8		-	vide any relevant notes or comments for data provided onal Standard 8.

i. ☐ Yes ☐ No

h. ☐ Yes ☐ No

g. □ Yes □ No

ACK

FUNCTIONAL STANDARD 9: The IIS ensures and promotes user access to immunization records for clinical decision-making.

- 9.1 The IIS has policies and procedures for recruiting and enrolling immunization providers in the IIS.
- 9.2 The IIS actively engages immunization providers to recruit and enroll them in the IIS.
- 9.3 The IIS ensures enrolled immunization providers have access to a patient's immunization record in the IIS at the time immunization services are delivered.

Provider Site Participation

Logic Guidance

- **Provider Site:** A provider organization that provides vaccination services and that maintains permanent records (excluding temporary or mobile immunization clinics, health fairs, etc.).
- All provider sites enrolled in VFC as of December 31, 2017 should be counted as a VFC site.
- In this section:

Use the table below to identify provider sites to include in the assessment:

General provider site inclusions/exclusions	Include	Exclude
All provider sites enrolled in your IIS, regardless of age group served by those sites or your	Х	
IIS		
All provider sites enrolled in the IIS as of December 31, 2017	X	
Provider sites that only enrolled to provide emergency vaccines such as during pandemic		Χ
response scenarios.		
Example: Exclude a community center that only enrolled due to the 2010 H1N1 influenza pandemic and does not provide other immunizations. However , <i>include</i> a pediatrician that enrolled due to the 2010 H1N1 influenza pandemic if they also continue to provide routine immunizations.		

Provider Sites			
	VFC Sites	Non-VFC Sites	
55. Number of provider sites in your jurisdiction as of December 31, 2017	a.		
56. Number of provider sites in your jurisdiction enrolled in your IIS as of December 31, 2017	a.	b.	
57. Number of enrolled provider sites reporting data to your IIS at least once from July 1, 2017 – December 31, 2017	a.	b.	
c. Percentage of VFC provider sites that reported data to your IIS at least once from July 1, 2017 – December 31, 2017 (auto-calculated)	Q.57a/Q.55a		
d. Percentage of all VFC provider sites and enrolled non-VFC provider sites who reported data to your IIS at least once from July 1, 2017 – December 31, 2017 (auto-calculated)	(Q.57a + Q.57b)/(Q.55a + Q.56b)		

Notes for Functional Standard 9	Please provide any relevant notes or comments for data provided for	
	Functional Standard 9.	

FUNCTIONAL STANDARD 10: The IIS forecasts pediatric, adolescent, and adult immunizations in a manner consistent with Advisory Committee on Immunization Practices (ACIP) recommendations.

- 10.1 The IIS uses Clinical Decision Support (CDS) functionality that can be updated to reflect new or revised ACIP recommendations.
- 10.2 The IIS displays and sends an evaluated immunization history that adheres to ACIP recommendations for each vaccination event.
- 10.3 The IIS displays and sends a forecast that adheres to ACIP recommendations, with status indicators for each vaccine and vaccine family.
- 10.4 The IIS CDS functionality is updated for the IIS in a timely fashion after new ACIP recommendations are incorporated into the CDC Clinical Decision Support for immunization (CDSi) resources published on the CDC website.

Logic Guidance

- Answer "yes" for the questions below only if all of the CDC-published CDSi test cases in each category were run and
 the IIS produced the result specified for each test case (except for cases where results intentionally differed from
 the test cases due to policies described in the questions below).
- **58.** In 2017, my IIS used CDC-endorsed methods to ensure that evaluations and forecasts produced by my IIS were consistent with ACIP age-based vaccination recommendations (excluding risk factors, contraindications, and immunities); any deviations from ACIP recommendations exist because of documented state and local policy, for the following age groups:

a. 0–6 years Yes/No

b. 0–18 years Yes/No

c. All ages (lifespan) Yes/No

59. In 2017, my IIS used CDC-endorsed methods to ensure that evaluations and forecasts produced by my IIS were consistent with ACIP vaccination recommendations, including risk factors, contraindications, and immunities; any deviations from ACIP recommendations exist because of documented state and local policy, for **all ages (lifespan)** including:

a. Risk factors Yes/No

b. Contraindications Yes/No

c. Immunities Yes/No

- **60.** CDC released CDSi version 3.5 on August 25, 2017, which included updates for the 2017–18 influenza seasonal recommendations. How long did it take for your IIS to implement all of **the influenza guidance for evaluation and forecasting** into production?
 - a. 30 days or less
 - **b.** 31–60 days
 - c. Greater than 60 days

d. The IIS has not been updated with the CDSi functionality to reflect the September 2, 2016 (Version 3.1) CDSi recommendations for influenza.

Please provide any relevant notes or comments for data provided for Functional Standard 10.

FUNCTIONAL STANDARD 11: The IIS manages patient status at the provider organization and jurisdiction levels.

- 11.1 The IIS maintains patient "active" or "inactive" status (PAIS) at the provider site level.
- 11.2 The IIS assigns patient PAIS to an individual at one or more jurisdictional levels.
- 11.3 The IIS user can update PAIS through the user interface or via HL7 message.
- 11.4 The IIS user can generate a roster of active patients from the IIS for a provider site.
- 11.5 The IIS assigns PAIS to a patient for a provider site based on information in the IIS.

Data Elements – Patient Status Indicators

Logic Guidance: Data Elements – Patient Status Indicators

- For individuals age 0–18 years with date of birth from January 1, 1999 through December 31, 2017
 - Note: If your registry is not authorized to serve individuals of this entire age range, respond to the question with individuals your registry **is** authorized to serve.

• In this section:

Use the table below to identify individuals to include in the assessment:

Individuals who are considered	Include	Exclude
Residence in jurisdiction is confirmed or received an immunization from a provider organization within the jurisdiction and address is unknown	х	
Inactive, outside jurisdiction		Х
Does not reside in the jurisdiction		
Unknown, no address – no vaccination	X	
Address in unknown and IIS has never received vaccination information	^	
Unknown, no activity for extended period of time		
 Has not received demographic and/or immunization for an extended period of time Note that the "extended period of time" could be defined differently by each IIS 	Х	
Deceased		Х
Deceased at the time of query		^

After identifying individuals in the table above, use this table to further identify newborns to include in the assessment:

General demographic inclusions/exclusions	Include	Exclude
Demographic records belonging to those with only an H1N1 vaccination record		Х

			Percentage of patient records
Patient-level data elements	Field Status (check one)	Number of patient records with	with date of birth from January
		date of birth from January 1, 1999	1, 1999 through December 31,
		through December 31, 2017, with	2017 with field populated with
		field populated with data	data. Denominator from Q.15
			(auto-calculated)

at the provider site level: Definition: A field to denote the status of a patient. Examples: Active Inactive – No longer a patient Inactive – Lost to follow- up Inactive – Unspecified 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. ☐ Field present ☐ No field	b.#	c. Q.61b/(Q.15)
	omatically assign PAIS to an indiv	idual at one or more jurisdiction	al levels based on the

- **63.** In 2017, did the IIS set the status of an individual to permanently inactive/deceased based on any information submitted to the IIS?

 Yes/No
- **64.** In 2017, by which mechanism(s) could an IIS user update PAIS? Check all that apply:
 - *a.* Direct user interface
 - b. HL7 message
- 65. In 2017, did the IIS generate a roster of active patients for a provider site from the IIS? Yes/No
- **66.** In 2017, did the IIS automatically assign PAIS to a patient for one or more provider levels based on information in the IIS (e.g., based on which provider administered the most recent vaccinations)? Yes/No

Notes for Functional Standard 11	Please provide any relevant notes or comments for data provided for Functional Standard 11.

FUNCTIONAL STANDARD 12: The IIS supports vaccine product recall activities.

- 12.1 The IIS creates a list of patients who received recalled vaccine.
- 12.2 The IIS creates a list of provider sites that received recalled vaccine.
- 12.3 The IIS user can generate a list of patients or provider sites that received recalled vaccine.
- **67.** In 2017, could the IIS create a line list report of patients who received recalled vaccine based on query parameters (e.g. vaccination date, lot number, provider site, etc.)? Yes/No
- **68.** In 2017, could the IIS create a line list report of provider sites that received recalled vaccine based on query parameters (e.g. shipment date, lot number, etc.)? Yes/No
- **69.** In 2017, could the **IIS user** create a line list report of patients or provider sites that received recalled vaccine based on query parameters? Yes/No

Notes for Functional Standard 12	Please provide any relevant notes or comments for data provided for Functional Standard 12.

FUNCTIONAL STANDARD 13: The IIS supports reporting and investigation of vaccine adverse events.

- 13.1 The IIS has policies and procedures in place that support vaccine adverse event investigation.
- 13.2 The IIS provides IIS-related training, access, and support to adverse event investigators.
- 13.3 The IIS refers IIS users to appropriate resources for VAERS support.

Logic Guidance

- "Not Applicable" refers to instances in which no investigations occurred during 2017.
- 70. In 2017, did vaccine adverse event investigators in your jurisdiction routinely use IIS data? Yes/No/Not Applicable
- **71.** In 2017, did you have a link to the Vaccine Adverse Event Reporting System (VAERS) form in your IIS for users to access? Yes / No

Notes for Functional Standard 13	Please provide any relevant notes or comments for data provided for Functional Standard 13.

FUNCTIONAL STANDARD 14: The IIS supports public health response during disease outbreaks.

- 14.1 The IIS has policies and procedures in place that support vaccine-preventable disease investigation and control.
- 14.2 The IIS provides training, access, and support for disease investigators.
- 14.3 The IIS provides access to IIS data to support vaccine-preventable disease investigation and control.
- 14.4 The IIS provides access to IIS data to support perinatal hepatitis B prevention efforts.
- **72.** In 2017, did the IIS have the capability to create vaccination coverage and line list reports based on user-defined query parameters (e.g. a patient age group/DOB range, list of specific individuals, geographic area, recipients of specific vaccines, etc.) to support vaccine preventable disease investigation and control? Yes/No

Logic Guidance

- "Not Applicable" refers to instances in which no investigations occurred during 2017.
- 73. In 2017, did disease investigators in your jurisdiction routinely use IIS data? Yes/No/Not Applicable
- 74. In 2017, did Perinatal HepB investigators in your jurisdiction routinely use IIS data? Yes/No/Not Applicable

Notes for Functional Standard 14	Please provide any relevant notes or comments for data provided for Functional Standard 14.

FUNCTIONAL STANDARD 15: The IIS supports immunization-related efforts in school settings.

- 15.1 The IIS has policies and procedures in place that support school staff access and use of IIS data to assess student compliance with school immunization requirements.
- 15.2 The IIS has policies and procedures in place that support the use of IIS data for state and local school reporting requirements.
- 15.3 The IIS has policies and procedures in place that support the use of IIS data for identifying schoolaged students who are at risk during vaccine-preventable disease outbreaks.
- 15.4 The IIS actively engages with stakeholders to support immunization-related efforts in school settings.

Logic Guidance

- Include public schools that are subject to school entry requirements by age or grade in your jurisdiction.
- Use kindergarten entry requirements, requirements for 6 year old children, etc. when defining elementary schools.
- Use 6th grade entry requirements, requirements for 12 year olds, etc. when defining middle schools.
- If a school serves age ranges encompassing both elementary and middle schools, it is acceptable to count the school twice for the public elementary school count and the public middle school count.
 - Example: A school serves kindergarten-age children through 13 year old children. This school would be included in counts for public elementary schools and public middle schools.
- **75.** Select all methods by which your IIS supported immunization-related efforts in elementary or middle school settings during 2017:

Vec/No

u.	by providing offine access to school starr	103/140
<i>b</i> .	By sending individual immunization records to schools upon request	Yes/No
<i>c</i> .	By having an electronic connection to the school system	Yes/No
d.	By generating compliance reports by school	Yes/No
e.	By supporting schools in identifying school-age students at risk during vaccine-preventable outbreaks Yes/No	disease
f.	Other (specify)	

- **76.** Can your IIS calculate the percentage of public elementary schools in your jurisdiction that used the IIS as the primary source of immunization data to support immunization-related business requirements (e.g. assess student compliance with school immunization requirements, support state and local school reporting requirements, identify school-aged students who are at risk during vaccine-preventable disease outbreaks)? Yes/No
- 77. In 2017, how many public elementary schools were in your jurisdiction?

By providing online access to school staff

78. In 2017, how many public elementary schools use the IIS as the primary source of immunization data to support immunization-related business requirements (e.g. assess student compliance with school immunization

	requirements, support state and local school reporting requirements, identify school-aged students who are at risk during vaccine-preventable disease outbreaks)?			
	a. Percentage of public elementary schools in your jurisdiction that used IIS data (Q.78/Q.77)			
79.	9. Can your IIS calculate the percentage of public middle schools in your jurisdiction that used the IIS as the primary source of immunization data to support immunization-related business requirements (e.g. assess student compliance with school immunization requirements, support state and local school reporting requirements, identify school-aged students who are at risk during vaccine-preventable disease outbreaks)? Yes/No			
80.	In 2017, how many public middle schools were in your jurisdiction?			
81.	 81. In 2017, how many public middle schools in your jurisdiction that used the IIS as the primary source of immunization data to support immunization-related business requirements (e.g. assess student compliance with school immunization requirements, support state and local school reporting requirements, identify school-aged students who are at risk during vaccine-preventable disease outbreaks)? a. Percentage of public middle schools in your jurisdiction that used IIS data (Q.81/Q.80) 			
N	otes for Functional Standard 15 Please provide any relevant notes or comments for data provided for Functional Standard 15.			

FUNC [*]	FIONAL STANDARD 16: The IIS supp	ports immunization-related efforts in childcare	e settings.
16.1	The IIS has policies and procedures in place that support childcare staff access and use of IIS data to assess student compliance with childcare immunization requirements.		
16.2			
16.3	The IIS has policies and procedure	es in place that support the use of IIS data for	identifying children in
16.4		accine-preventable disease outbreaks. eholders to support immunization-related eff	orts in childcare
82. Sel	ect all methods by which your IIS supp	orted immunization-related efforts in childcare set	tings during 2017:
a.	By providing online access to child	dcare staff	Yes/No
b.	By sending individual immunization	on records to childcare settings upon request	Yes/No
c.	c. By having an electronic connection to the childcare system Yes/No		Yes/No
d.	d. By generating compliance reports by childcare setting Yes/No		Yes/No
e.	By supporting childcare settings in identifying children at risk during vaccine-preventable disease outbreaks Yes/No		table disease outbreaks
f.	Other (specify)		
pri co	mary source of immunization data to s mpliance with childcare immunization	tate-licensed childcare settings in your jurisdiction support immunization-related business requirement requirements, support state and local childcare regisk during vaccine-preventable disease outbreaks)?	nts (e.g., assess student porting requirements,
84. In :	In 2017, how many state-licensed childcare settings were in your jurisdiction?		
im ch	85. In 2017, how many state-licensed childcare settings in your jurisdiction used the IIS as the primary source of immunization data to support immunization-related business requirements (e.g., assess student compliance with childcare immunization requirements, support state and local childcare reporting requirements, identify children in childcare who are at risk during vaccine-preventable disease outbreaks)?		
a.	Estimated percentage of state-lic	ensed childcare settings in your jurisdiction that us	ed data (Q.85/Q.84)
Note	s for Functional Standard 16	Please provide any relevant notes or comment Functional Standard 16.	s for data provided for

FUNCTIONAL STANDARD 18: The IIS provides predefined and ad hoc assessment and coverage reports that users can generate without assistance from the IIS.

- 18.1 The IIS produces Assessment, Feedback, Incentive, and eXchange (AFIX) assessments that adhere to published CDC AFIX operational and technical guidelines.
- 18.2 The IIS assists with identification of under-immunized populations.
- 18.3 The IIS enables immunization stakeholders to generate vaccination coverage assessments for populations they serve (e.g., schools, health plans, health departments).
- **86.** In 2017, did at least one Assessment Feedback Incentive and eXchange (AFIX) visit conducted in the past calendar year use IIS-generated assessments that adhere to published CDC AFIX-IIS assessment requirements? Yes/No
- **87.** In 2017, did the IIS generate vaccination coverage assessments for geographic sub-jurisdiction-level areas (e.g. county, ZIP code, region, etc.) to identify under-immunized populations? Yes/No

Logic Guidance

- If the report can only be generated by looking up each patient record individually, select "No" for Q.88.
- **88.** In 2017, did the IIS have the capability to create vaccination coverage assessments and line list reports based on user-defined query parameters (e.g. a patient age group/DOB range, geographic area, recipients of specific vaccines, etc.) for a sub-population defined by the immunization stakeholder (i.e. a list of specific individuals)? Yes/No

Notes for Functional Standard 18	Please provide any relevant notes or comments for data provided for Functional Standard 18.

FUNCTIONAL STANDARD 19: The IIS supports reminder and recall activities.

- 19.1 The IIS supports the maintenance of complete and accurate contact information for individuals with records in the IIS.
- 19.2 The IIS identifies individuals in the IIS who have not received one or more age-appropriate vaccinations or vaccination series.
- 19.3 The IIS generates reminder and recall data by age, vaccine, vaccine series, reference date, IIS-defined geographic area, and provider site.
- 19.4 The IIS generates or supports more than one method of reminder and recall notification from the IIS or from third-party systems.
- 19.5 The IIS excludes individuals from reminder and recall outputs upon request.
- **89.** In 2017, were external sources (e.g., SmartyStreets, GIS) of address data used to verify/correct the formatting of addresses in your IIS (e.g., changing "ROAD" to "Rd")? Yes/No
- **90.** In 2017, were external sources (e.g., U.S. Postal Service, Lexis-Nexis) of residential addresses used to verify whether patients currently reside at the addresses listed in their IIS record, or to update the record to reflect the current address? Yes/No

Logic Guidance

Q.92:

- Answer "yes" if IIS data were used to support reminder and/or recall messages regardless if messages were generated by third-party systems or the IIS itself.
- If age-based reminder and/or recall messages were generated for any individuals within a listed age range, answer "yes" for that age range, even if the entire age range was not included.
- **91.** At least once in 2017, did any provider or the immunization program use the IIS to generate age-based reminder and/or recall messages for any individuals who were not up-to-date for their vaccinations? Yes/No
- **92.** If yes to Q.91, which of the following age groups did providers or the immunization program use the IIS to generate age-based reminder and/or recall messages for?

a. 0–6 years Yes/No

b. 7–18 years Yes/No

c. ≥19 years Yes/No

d. My IIS was used to generate reminder/recall messages, but cannot determine the age of the individuals Yes/No

93. In 2017, did your IIS exclude individuals from reminder and recall outputs upon request by a parent, guardian, or individual? Yes/No

Notes for Functional Standard 19	Please provide any relevant notes or comments for data provided for Functional Standard 19.

FUNCTIONAL STANDARD 20: The IIS provides immunization records to individuals with appropriate authentication.

20.1 The IIS has policies and procedures in place and facilitates access to official immunization records for individuals, parents, or custodial guardians.

Logic Guidance:

- An "official immunization record" refers to an immunization record that is acceptable for business functions including school entry and travel.
- **94.** In 2017, could individuals, parents, and custodial guardians obtain an official immunization record from the IIS... (select all that apply)
 - a. Through their healthcare provider? Yes/No
 - b. Through a provider-managed patient portal that interfaces with the IIS? Yes/No
 - c. Directly from the IIS through a consumer access portal? Yes/No
 - **d.** Directly from the IIS or Immunization Program without a consumer access portal (e.g. fax, mail, walk-in paper record, etc.)? Yes/No

Notes for Functional Standard 20	Please provide any relevant notes or comments for data provided for Functional Standard 20.

FUNCTIONAL STANDARD 22: The IIS reliably exchanges information electronically with IISs in other jurisdictions consistent with the current CDC-endorsed HL7 Implementation Guide.

- 22.1 The IIS has memoranda of understanding, interagency agreements, or other documented authorization to request and receive immunization information from other IISs.
- 22.2 The IIS can query another IIS for an immunization history.
- 22.3 The IIS sends patient demographic and vaccination records to IISs in other jurisdictions for patients who reside in those jurisdictions.
- **95.** In 2017, did your IIS send at least one QBP message in production to another jurisdiction's IIS, consistent with the CDC-endorsed HL7 Implementation Guide v. 2.5.1? Yes/No
- **96.** In 2017, if your IIS sent patient demographic and vaccination records to IIS in other jurisdictions, list all of these jurisdictions: [Free text box, open ended no text limit]
- **97.** In 2017, if your IIS received patient demographic and vaccination records from IIS in other jurisdictions, list all of these jurisdictions: [Free text box, open ended no text limit]

Notes for Functional Standard 22	Please provide any relevant notes or comments for data provided for Functional Standard 22.

FUNCTIONAL STANDARD 23: The IIS supports vaccine management and quality assurance functions for VFC and state and local vaccine programs.

- 23.1 The IIS captures provider site Master Data in accordance with VTrckS data exchange specifications.
- 23.2 The IIS maintains a list of vaccines available for ordering consistent with the most current Federal Vaccines List.
- 23.3 The IIS supports vaccine ordering for provider sites enrolled in VFC and state and local vaccine programs.
- 23.4 The IIS provides the status of vaccine orders placed in the IIS to provider sites.
- 23.5 The IIS supports provider site enrollment in VFC and state and local vaccine programs.
- 23.6 The IIS supports the collection of the Provider Profile data for provider sites enrolled in VFC and state and local vaccine programs.
- 23.7 The IIS supports the tracking of VFC eligibility at the dose level for every administered dose of publicly purchased vaccine ordered, administered, and reported to the IIS.
- **98.** In 2017, did the IIS capture provider site Master Data in accordance with VTrckS data exchange specifications? Yes/No
- **99.** In 2017, did the IIS maintain a list of vaccines available for ordering consistent with the most current federal vaccines list? Yes/No
- **100.** In 2017, did the IIS support vaccine ordering for provider sites enrolled in VFC and state and local vaccine programs? Yes/No
- 101. In 2017, did the IIS provide the status of vaccine orders placed in the IIS to provider sites? Yes/No
- 102. In 2017, did the IIS support provider site enrollment in VFC and state and local vaccine programs? Yes/No
- **103.** In 2017, did the IIS support the collection of the provider profile data for provider sites enrolled in VFC and state and local programs? Yes/No

Notes for Functional Standard 23	Please provide any relevant notes or comments for data provided for Functional Standard 23.

FUNCTIONAL STANDARD 24: The IIS supports data exchange with the national Vaccine Tracking System (VTrckS).

- 24.1 The IIS exports provider Master Data, inventory data, and order data to VTrckS.
- 24.2 The IIS imports provider site shipment data from VTrckS.
- 24.3 The IIS inventory is populated automatically through receipt of vaccine shipment data from VTrckS or by provider site acknowledgement of receipt.
- 24.4 The IIS exports vaccine return and wastage data to VTrckS.
- 104. In 2017, did the IIS import provider site shipping data from VTrckS? Yes/No
- **105.** In 2017, was the IIS inventory populated automatically through receipt of vaccine shipment data from VTrckS or by provider site acknowledgement of receipt? Yes/No
- 106. In 2017, did the IIS export vaccine return and wastage data to VTrckS? Yes/No

Notes for Functional Standard 24	Please provide any relevant notes or comments for data provided for Functional Standard 24.

FUNCTIONAL STANDARD 25: The IIS supports provider site level vaccine inventory management and reconciliation according to VFC and state and local immunization program requirements.

- 25.1 The IIS provides access to the IIS vaccine inventory functionality for all provider sites that receive publicly purchased vaccine.
- 25.2 The IIS organizes and indicates vaccine inventory by any combination of NDC, lot number, expiration date, and public private indicator for vaccine inventory managed in the IIS.
- 25.3 The IIS allows provider sites to record information about inventory they receive (e.g., vaccine orders or incoming transfers).
- 25.4 The IIS automatically decrements administered doses (not historical doses) from active inventory.
- 25.5 The IIS supports the reconciliation of expected inventory in the IIS with the provider site's actual physical inventory.
- 25.6 The IIS documents reductions in vaccine inventory (e.g., outgoing vaccine transfers, returns, wastage, and other).
- 25.7 The IIS supports the printing of packing slips for vaccines being returned to the distributor.
- 25.8 The IIS supports the management of provider site inventory by fund type.
- **107.** In 2017, did the IIS organize and indicate vaccine inventory by any combination of NDC, lot number, expiration date and public private indicator for vaccine inventory managed in the IIS?

 Yes/No
- **108.** In 2017, did the IIS allow provider sites to record information about inventory they receive (e.g., vaccine orders or incoming transfers)? Yes/No
- **109.** In 2017, did the IIS automatically decrement administered doses (and not historical doses) from the current inventory? Yes/No
- **110.** In 2017, for each provider site, did the IIS: (Select all that apply)
 - a. Display the expected inventory for the reconciliation period (i.e. since the last reconciliation)?
 - **b.** Require providers to report actual physical inventory? Yes/No
 - c. Require documentation describing discrepancies between expected and actual inventory? Yes/No
- **111.** In 2017, did the IIS document reductions in vaccine inventory (e.g., outgoing vaccine transfers, returns, wastage, and other)? Yes/No
- 112. In 2017, did the IIS support the printing of a packing slip for vaccines being returned to the distributor? Yes/No
- **113.** In 2017, did the IIS allow the management of provider site inventory by fund type? Yes/No

Notes for Functional Standard 25	Please provide any relevant notes or comments for data provided for Functional Standard 25.

FUNCTIONAL STANDARD 26: The IIS provides data or produces reports for VFC and state and local immunization programs.

- 26.1 The IIS produces reports or data that estimate, by patient age, the number of doses of publicly purchased vaccine each provider site will administer during the upcoming year.
- 26.2 The IIS produces reports or data that estimate, by patient age, the aggregate number of publicly purchased vaccines all providers will administer during the upcoming year.
- 26.3 The IIS produces reports or data that detail publicly purchased vaccine doses administered by a provider site.
- 26.4 The IIS produces reports or data that support vaccine inventory management and accountability for purposes other than ordering and reconciliation.
- 26.5 The IIS produces accountability reports or data that support the vaccine ordering process.
- 114. In 2017, did the IIS produce reports or data that... (select all that apply)
 - a. Estimate, by patient age, the number of doses of publicly purchased vaccine **each** provider site will administer during the upcoming year? Yes/No
 - **b.** Estimate, by patient age, the aggregate number of publicly purchased vaccines **all** providers will administer during the upcoming year? Yes/No
 - c. Detail publicly purchased vaccine doses administered by a provider site? Yes/No
 - d. Support vaccine inventory management and accountability for purposes other than ordering and reconciliation? Yes/No

115. In 2017, did the IIS produce accountability reports or data that support the vaccine ordering process? Yes/No

Notes for Functional Standard 26	Please provide any relevant notes or comments for data provided for Functional Standard 26.