Section IX. 2021 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 the Centers for Disease Control and Prevention (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 the release of Census estimates 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 September 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 2021

The IISAR underwent revisions in 2020 to align with the Data Quality Blueprint. The survey was reorganized to align with the blueprint milestones. Please be sure to carefully review the logic guidance in all sections in order to respond to their new specifications as accurately as possible.

- COVID-19 Inclusion Guidance: In 2020, awardees were instructed to exclude COVID-19 data, as well as COVID-19-only provider sites and patient records. With the likelihood of continued COVID-19 vaccination, awardees are instructed to include COVID-19 data in the 2021 IISAR. Awardees should:
 - Include provider sites who have currently only submitted COVID-19 vaccination data
 - Count any COVID-19 vaccinations toward patient participation counts
 - o Factor COVID-19 vaccinations into vaccine record timeliness calculations
 - Respond "Yes" to questions about system functionality and activity, even if they were only deployed in the context of COVID-19 vaccines
- H1N1 Guidance Removed: To better streamline logic guidance in the IISAR, guidance pertaining to the exclusion criteria for the 2009 H1N1 pandemic have been removed. Though these guidance have been removed, awardees should:
 - Continue to exclude provider sites, if any, that only ever provided H1N1 vaccination data during the
 2009 pandemic
 - o Continue to exclude H1N1 vaccinations from patient participation calculations

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 5 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.

- Items reflect a range of topics involving the IIS's live production environment. The production environment refers to your IIS being in operation and available for its intended use by its users.
- 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 (ACIP) and indicates the lower and upper age limits for who should be included in data reporting. 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.
- The IISAR questionnaire assesses several functionalities and activities of your IIS. Please note that questions utilizing the term "could" refer to capabilities of your system regardless of whether they were performed during the calendar year, while questions utilizing the term "did" refer to activities that your IIS actively performed during the calendar year.
- Submission of the final IISAR 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, 2022; the year of performance is calendar year 2021. CDC IISSB staff will contact each IIS after March 31 with questions and/or comments about the report and data submitted for calendar year 2021. After March 31, 2022, 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 2021 data that were uploaded AFTER the March 31 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.

Resources

- For additional guidance on Patient Active/Inactive Status in Immunization Information Systems, see the AIRA guide here: http://repository.immregistries.org/files/resources/5835adc2dad8d/mirow pais full guide.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
- For additional guidance on IIS security, see the AIRA guide here:
 http://repository.immregistries.org/files/resources/595e4e25ab1b1/aira security guidance final new logo.pdf
- The Immunization Information Systems (IIS) Data Quality Blueprint is located here: https://www.cdc.gov/vaccines/programs/iis/downloads/Data-Quality-Blueprint-508.pdf

Q.1 – Q.5 are required to be completed by all List ONLY government employee contacts in (0.3 and 0.4	n transition or temporarily inactive.
1. Awardee		
2. Name of person(s) submitting this report_		
3. Programmatic IIS contact person (a manag	er or administrator who coordinates	IIS activities):
a. First Name:	e. Phone:	f. Ext:
b. Last Name:		
c. Title:		
d. Affiliation:	_	
h. Check if contact person for quest	ions about this report	
4. Technical IIS contact person (coordinator o	f IIS software and/or hardware) :	
Check if same as programmatic conta	act (if yes, autopopulate a-g)	

h. Check if contact person for questions about this report

a. First Name: _____

b. Last Name: ______
c. Title: _____
d. Affiliation: _____

5. There is no IIS in production in this state/city/territory. (If yes, block out all subsequent sections of report)

e. Phone:______ f. Ext: _____

g. Email:_____

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 a reporting mandate or the completeness of data captured for that age group.

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

DATA QUALITY CHARACTERISTIC: COMPLETE

- 90% of all provider sites in the jurisdiction are reporting to the IIS
- 90% of demographic records for the jurisdiction are included in the IIS
- 90% of vaccination records for persons in the jurisdiction are included in the IIS

Provider Site Participation

Logic Guidance— **Provider Site Participation**:

- Notes on Provider Site Classifications:
 - o **Provider Site:** A provider organization that provides vaccination services and that maintains permanent records (excluding temporary or mobile immunization clinics, health fairs, etc.).
 - Enrolled: A provider site is considered enrolled if it is in your IIS and has achieved a live interface or is manually entering data to the IIS.
 - o All provider sites enrolled in VFC as of December 31, 2021 should be counted as a VFC site.
- Use the table below to identify provider sites to include in the assessment for Q.7 − 9.

General provider site inclusions/exclusions	
All provider sites enrolled in your IIS, regardless of age group served by those sites or your IIS	
All provider sites enrolled in your IIS as of December 31, 2021	
Provider sites that are physically located outside your jurisdiction	

Provider Sites					
	VFC Sites	Non-VFC Sites			
7. Number of provider sites in your jurisdiction as of December 31, 2021.	a.				
8. Number of provider sites in your jurisdiction enrolled in your IIS as of	a.	b.			
December 31, 2021.					
9. Number of enrolled provider sites reporting data to your IIS at least once from	a.	b.			
July 1, 2021 – December 31, 2021.					
c. Percentage of VFC provider sites that reported data to your IIS at least	Q.9a/Q.7a				
once from July 1, 2021 – December 31, 2021. (auto-calculated)					
d. Percentage of all VFC provider sites and enrolled non-VFC provider sites					
that reported data to your IIS at least once from July 1, 2021 – December (Q.9a + Q.9b)/(Q.7a + Q.8b)					
31, 2021. (auto-calculated)					

Newborn Population Capture

Logic Guidance—Newborn Population Capture:

Notes on Vital Records vs Other Records

- Vital Records: Vital Records are records of life events kept under governmental authority and include birth certificates.
- Other record: Other birth records are all other records of birth that are not Vital Records and may come from birthing hospitals, perinatal or newborn screening programs.
- Reported numbers of newborn records established from Vital Records and other record sources should be mutually exclusive.
- For Q.11 Q.12 below, if a patient record comes to your IIS through other birth record sources, but is later verified by Vital Records, consider the patient record to have come from Vital Records.
- For Q.11 Q.12 below, if a patient record comes to your IIS through other birth record sources ONLY, consider the patient record to have come from other record sources.

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

Jurisdictional Status	Age	Residence	Immunization History	Include?
<any></any>	Born 1/1/2021 through 12/31/2021	Known to reside in jurisdiction at time of query, regardless of residence at time of birth	<any></any>	Yes
Active	Born 1/1/2021 through 12/31/2021	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2021 through 12/31/2021	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2021 through 12/31/2021	Address unknown	IIS has never received vaccination information	YES
Unknown	Born 1/1/2021 through 12/31/2021	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time*	YES
			* Note that the "extended period of time" could be defined differently by each IIS	

Inactive	Born 1/1/2021 through 12/31/2021	Address not in jurisdiction	<any></any>	NO
Deceased	Born 1/1/2021 through 12/31/2021	<any></any>	<any></any>	NO
<any></any>	Born before 1/1/2021 or after 12/31/2021	<any></any>	<any></any>	NO

- **11.** Number of patient records created in your IIS from Vital Records for children born from January 1 through December 31, 2021 who resided in your jurisdiction at the time of query._____
- **12.** Number of patient records created in your IIS from sources other than Vital Records for children born from January 1 through December 31, 2021 who resided in your jurisdiction at the time of query. _____
 - a. Percentage of children in your IIS born from January 1 through December 31, 2021 with records created in your IIS from all sources. (Q.11+Q.12/Q.10)

Enrollment in IIS (0-18 years, lifespan)

Logic Guidance—Enrollment among individuals aged 0 through 18 years:

- Q.14: For individuals 0 18 year of age
- Use the table below to identify individuals to include in the assessment:

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born 1/1/2003 through 12/31/2021	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2003 through 12/31/2021	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2003 through 12/31/2021	Address unknown	IIS has never received vaccination information	YES
Unknown	Born 1/1/2003 through 12/31/2021	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born 1/1/2003 through 12/31/2021	Address not in jurisdiction	<any></any>	NO
Deceased	Born 1/1/2003 through 12/31/2021	<any></any>	<any></any>	NO
<any></any>	Born before 1/1/2003 or after 12/31/2021	<any></any>	<any></any>	NO

• After identifying individuals in the table above, use this table to further identify individuals to include in the assessment for Q.14:

General demographic inclusions/exclusions	
Individuals enrolled in your IIS, even if they only have travel vaccines, non-vaccine products, or no	
vaccines in the vaccine record	

- **13.** Number of individuals aged 0 years through 18 years in the jurisdiction at the time of query. (2020 Census data)
- **14.** Number of individuals aged 0 years through 18 years (born from January 1, 2003 through December 31, 2021) in both your jurisdiction AND your IIS. ______

a. 0–18 years enrollment: Percentage of individuals aged 0 years through 18 years in both your jurisdiction AND your IIS. (Q.14/Q.13)

Logic Guidance—Enrollment among individuals of all ages:

- Q.16: For individuals of all ages
- Use the table below to identify individuals to include in the assessment:

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born on or before 12/31/2021	Address in jurisdiction	<any></any>	YES
Active	Born on or before 12/31/2021	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born on or before 12/31/2021	Address unknown	IIS has never received vaccination information	YES
Unknown	Born on or before 12/31/2021	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born on or before 12/31/2021	Address not in jurisdiction	<any></any>	NO
Deceased	Born on or before 12/31/2021	<any></any>	<any></any>	NO
<any></any>	Born after 12/31/2021	<any></any>	<any></any>	NO

• After identifying individuals in the table above, use this table to further identify individuals to include in the assessment for Q.16:

General demographic inclusions/exclusions	
Individuals enrolled in your IIS, even if they only have travel vaccines, non-vaccine products, or no	
vaccines in the vaccine record	

- **15.** Number of individuals of all ages in the jurisdiction at the time of query. (2020 Census data)
- 16. Number of individuals of all ages (born on or before December 31, 2021) in both your jurisdiction AND your IIS.

a. Lifespan enrollment: Percentage of individuals of all ages in both your jurisdiction AND your IIS. (Q.16/Q.15)

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

Logic Guidance—Enrollment among children aged 4 months through 5 years:

- For Q.18:
- Use the table below to identify children to include in the enrollment assessment:

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born 1/1/2016 through 8/31/2021	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2016 through 8/31/2021	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2016 through 8/31/2021	Address unknown	IIS has never received vaccination information	YES
Unknown	Born 1/1/2016 through 8/31/2021	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born 1/1/2016 through 8/31/2021	Address not in jurisdiction	<any></any>	NO
Deceased	Born 1/1/2016 through 8/31/2021	<any></any>	<any></any>	NO
<any></any>	Born before 1/1/2016 or after 8/31/2021	<any></any>	<any></any>	NO

After identifying children in the table above, use this table to further identify children to include in the assessment for Q.18:

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

17. Number o	of children aged	d 4 months through 5	years in the	jurisdiction at the time o	of quer	y. (2020	Census data)

- **18.** Number of children aged 4 months through 5 years (born from January 1, 2016 through Aug 31, 2021) in both your jurisdiction AND IIS at the time of query.
 - a. Child enrollment: Percentage of children aged 4 months through 5 years in both your jurisdiction AND IIS at the time of query. (Q.18/Q.17)

Logic Guidance—Participation among enrolled children aged 4 months through 5 years:

- For Q.19:
- After identifying children for enrollment in Q.18, use this table to further identify children with the following vaccinations for Q.19:

General vaccination inclusions/exclusions	Include?
All doses (valid and invalid) administered before January 1, 2022, including those recorded in your IIS after December 31, 2021	
Travel vaccines (yellow fever, typhoid, etc.) See: http://wwwnc.cdc.gov/travel/page/yellowbook-home	NO
COVID-19 vaccines administered	YES
Non-vaccine products (e.g. immune globulins, PPD)	NO

19. Number of children in Q.18 (children born from January 1, 2016 through Aug 31, 2021 in both your jurisdiction AND IIS at the time of query) who 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 both your jurisdiction AND IIS at the time of query who have 2 or more vaccine doses recorded in your IIS. (Q.19/Q.17)

Adolescent Participation in IIS (aged 11 through 17 years)

Logic Guidance—Enrollment among adolescents aged 11 through 17 years:

• For Q.21:

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

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born 1/1/2004 through 12/31/2010	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2004 through 12/31/2010	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2004 through 12/31/2010	Address unknown	IIS has never received vaccination information	YES
Unknown	Born 1/1/2004 through 12/31/2010	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born 1/1/2004 through 12/31/2010	Address not in jurisdiction	<any></any>	NO
Deceased	Born 1/1/2004 through 12/31/2010	<any></any>	<any></any>	NO
<any></any>	Born before 1/1/2004 or after 12/31/2010	<any></any>	<any></any>	NO

• After identifying adolescents in the table above, use this table to further identify adolescents to include in the assessment for Q.21:

General demographic inclusions/exclusions	
Adolescents enrolled in your IIS, even if they only have travel vaccines, non-vaccine products, or	YES
no vaccines in the vaccine record	

20. Number of adolescents a	aed 11 throuah 17	vears in vour i	iurisdiction at the time of query	. (2020 Census data)
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- **21.** Number of adolescents aged 11 through 17 years (born from January 1, 2004 through December 31, 2010) in both your jurisdiction AND IIS at the time of query.
 - a. Adolescent enrollment: Percentage of adolescents aged 11 through 17 years in both your jurisdiction AND IIS at the time of query. (Q.21/Q.20)

Logic Guidance—Participation among enrolled adolescents aged 11 through 17 years:

- For Q.22:
- After identifying adolescents for enrollment in Q.21, use this table to further identify adolescents with the following vaccinations for Q.22:

General vaccination inclusions/exclusions	Include?
All doses (valid and invalid) administered before January 1, 2022, including those recorded in your IIS after December 31, 2021	YES
Adolescent doses ONLY if they were <u>administered</u> from age 9 through 17 years. Only include: Tdap/Td, HPV, MenACWY, MenB, seasonal influenza, pneumococcal, HepA, HepB, polio, MMR, and varicella (http://www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html#printable)	YES
COVID-19 vaccines administered	YES
Doses administered to adolescents before the adolescent's 9th birthday	NO
Travel vaccines (yellow fever, typhoid, etc.) See: http://wwwnc.cdc.gov/travel/page/yellowbook-home	NO
Non-vaccine products (e.g. immune globulins, PPD)	NO

22.	Number of adolescents in Q.21 (adolescents born from January 1, 2004 through December 31, 2010 in both you
	jurisdiction AND IIS at the time of query) who 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 both your jurisdiction AND IIS at the time of query who have 2 or more adolescent vaccine doses recorded in your IIS. (Q.22/Q.20)

Adult Participation in IIS (aged 19 years and older)

Logic Guidance—Enrollment among adults aged 19 years and older:

• For Q.24:

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

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born on or before 12/31/2002	Address in jurisdiction	<any></any>	YES
Active	Born on or before 12/31/2002	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born on or before 12/31/2002	Address unknown	IIS has never received vaccination information	YES
Unknown	Born on or before 12/31/2002	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born on or before 12/31/2002	Address not in jurisdiction	<any></any>	NO
Deceased	Born on or before 12/31/2002	<any></any>	<any></any>	NO
<any></any>	Born after 12/31/2002	<any></any>	<any></any>	NO

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

General demographic inclusions/exclusions	
Adults enrolled in your IIS, even if they only have travel vaccines, non-vaccine products, or no	YES
vaccines in the vaccine record	

:	24. Number of adults aged 19 years and older (born on or before December 31, 2 at the time of query	.002) in both your jurisdiction AND IIS
	a. Adult enrollment: Percentage of adults aged 19 years and older in bot of query. (Q.24/Q.23)	th your jurisdiction AND IIS at the time
	Logic Guidance—Participation among enrolled adults aged 19 years and older:	
	• For Q.25:	
	 After identifying adults for enrollment in Q.24, use this table to further identifications for Q.25: 	ntify adults with the following
	General vaccination inclusions/exclusions	Include?
	All doses (valid and invalid) administered before January 1, 2022, including the IIS after December 31, 2021	ose recorded in your YES
	Adult doses ONLY if they were <u>administered</u> from age 19 years and older. Only influenza, Tdap/Td, varicella, HPV, zoster, MMR, pneumococcal, MenACWY, MepB https://www.cdc.gov/vaccines/schedules/downloads/adult/adult-comb	MenB, HepA, and
	COVID-19 vaccines administered	YES
	Doses administered to adults before 19 years of age	NO
	Travel vaccines (yellow fever, typhoid, etc.) See: http://www.nc.cdc.gov/travel-home	/page/yellowbook- NO
	Non-vaccine products (e.g. immune globulins, PPD)	NO
;	25. Number of adults in Q.24 (born on or before December 31, 2002 in both your query) who have 1 or more adult vaccine dose(s) administered at 19 years an IIS	
	a. Adult participation: Percentage of adults aged 19 years and older in boof query who have 1 or more adult vaccine dose(s) recorded in your II.	

23. Number of adults aged 19 years and older in your jurisdiction at the time of query. (2020 Census data)

Notes for BLUEPRINT: COMPLETE	Please provide any relevant notes or comments for data provided in for this section
_	

26. Within the last six months of 2021, did your IIS assess the number of publicly-funded vaccines delivered AND the

number of publicly-funded vaccines administered in your IIS using IIS vaccine inventory functionality?

Yes/No

DATA QUALITY CHARACTERISTIC: VALID

- 100% of routine age-based vaccines in the IIS are evaluated and forecasted in alignment with ACIP recommendations
- 100% of patient addresses are validated using external sources

Address Validation

- **27.** In 2021, were residential addresses verified to ensure a patient currently resided at the address listed in the patient record? Yes/No
- 28. In 2021, were residential addresses standardized and validated as USPS addresses?

 Yes/No

Notes for BLUEPRINT: VALID	Please provide any relevant notes or comments for data provided in for this section

DATA QUALITY CHARACTERISTIC: TIMELY

- 95% of birth records are created in the IIS within 30 days of the patient's birth
- 95% of vaccination events are recorded in the IIS within 1 day

Timeliness of Birth Records in IIS

Logic Guidance—Birth Record Timeliness:

Notes on Days:

- o Day 0 refers to the date of birth.
- Days listed refer to calendar days.

Notes on Vital Records versus Other Records

- Vital Records: Vital Records are records of life events kept under governmental authority and include birth certificates.
- Other record: Other birth records are all other records of birth that are not Vital Records and may come from birthing hospitals, perinatal or newborn screening programs.
- 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 your IIS by Vital Records FIRST.

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

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born 1/1/2021 through 12/31/2021	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2021 through 12/31/2021	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2021 through 12/31/2021	Address unknown	IIS has never received vaccination information	YES
Unknown	Born 1/1/2021 through 12/31/2021	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born 1/1/2021 through 12/31/2021	Address not in jurisdiction	<any></any>	NO

Deceased	Born 1/1/2021	<any></any>	<any></any>	NO
	through			
	12/31/2021			
<any></any>	Born before	<any></any>	<any></any>	NO
	1/1/2021 or after			
	12/31/2021			

29. For children born January 1 through December 31, 2021 in your IIS's jurisdiction, what number had a demographic record established in your 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)/(j+k)
>30 days - ≤60 days	d.	e.	f. (d+e)/(j+k)
>60 days	g.	h.	i. (g+h)/(j+k)
Total (auto-calculated)	j	k	

Timeliness of Vaccination Records in IIS

Logic Guidance—Vaccine Record Timeliness:

Notes on timeliness:

- 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 your IIS.
- o Timeframes listed refer to calendar days.
- Use the table below to identify individuals to include in the assessment:

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	For 0 – 18 year olds: Born 1/1/2003 through 12/31/2021 For All Ages: Born 12/31/2021 or earlier	Address in jurisdiction	<any></any>	YES
Active	For 0 – 18 year olds: Born 1/1/2003 through 12/31/2021 For All Ages: Born 12/31/2021 or earlier	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	For 0 – 18 year olds: Born 1/1/2003 through 12/31/2021 For All Ages: Born 12/31/2021 or earlier	Address unknown	IIS has never received vaccination information	NO
Unknown	For 0 – 18 year olds: Born 1/1/2003 through 12/31/2021 For All Ages: Born 12/31/2021 or earlier	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time*	YES

			* Note that the "extended period of time" could be defined differently by each IIS	
Inactive	For 0 – 18 year olds: Born 1/1/2003 through 12/31/2021 For All Ages: Born 12/31/2021 or earlier	Address not in jurisdiction	<any></any>	NO
Deceased	For 0 – 18 year olds: Born 1/1/2003 through 12/31/2021 For All Ages: Born 12/31/2021 or earlier	<any></any>	<any></any>	NO
<any></any>	For 0 – 18 year olds: Born 1/1/2003 through 12/31/2021 For All Ages: Born 12/31/2021 or earlier	<any></any>	<any></any>	NO

• 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?
For 0 – 18 year olds: Vaccinations administered in CY2021 for all persons 0 – 18 years in your IIS For All Ages: Vaccinations administered in CY2021 for persons of all ages in your IIS	YES
Doses that were administered before January 1, 2022, including those recorded after December 31, 2021	YES
All doses (valid and invalid)	YES
COVID-19 vaccines administered	YES
Travel vaccines (yellow fever, typhoid, etc.) See: http://wwwnc.cdc.gov/travel/page/yellowbook-home	NO
Historical vaccinations (vaccination information submitted to your IIS by a provider who did not administer that vaccination)	NO

30. For vaccinations administered in 2021 to all persons 0 - 18 years and of all ages in your IIS, list the number of vaccine doses posted to production to your IIS within the following time frames:

	Number of vaccine doses administered (i.e. non-historical) during CY2021 to persons aged 0 through 18 years as of the date of vaccination	Percentage of doses reported for persons aged 0 through 18 years for the specified timeframe (auto- calculated)	Number of vaccine doses administered to persons of all ages (lifespan) (i.e. non- historical) during CY2021	Percentage of doses reported for persons of all ages (lifespan) for the specified timeframe (auto- calculated)
≤1 days	а	f (a/e)	j	o (j/n)
>1 days– ≤14 days	b	g (b/e)	k	p (k/n)
>14 days– ≤30 days	С	h (c/e)	1	q (I/n)
>30 days	d	i (d/e)	m	r (m/n)
Total (auto- calculated)	е		n	

Notes for BLUEPRINT: TIMELY	Please provide any relevant notes or comments for data provided in for this section

DATA QUALITY CHARACTERISTIC: AVAILABLE

Immunization program staff have the ability to query IIS data for coverage reports and ad hoc questions

Reporting Capability

- **31.** In 2021, were IIS data used to generate population-based coverage assessments for provider sites by patient age, age group, single vaccine, vaccine series, geographic sub-jurisdiction-level areas, OR other characteristics and published in a report that was shared with providers or other stakeholders within the jurisdiction? Yes/No
- **32.** In 2021, were IIS data used to generate population-based coverage assessments by patient age, age group, single vaccine, vaccine series, geographic sub-jurisdiction-level areas, OR other characteristics and published to a public facing website? Yes/No
 - a. If yes, please provide website link:
- **33.** In 2021, was your IIS used to generate provider-level coverage assessments that met current published CDC operational and technical guidelines for provider-level quality improvement? Yes/No
- **34.** In 2021, did IIS staff produce IIS-generated provider-level coverage assessments based on user-selected criteria? Yes/No
- **35.** In 2021, did non-IIS immunization program staff (VFC coordinators, IQIP coordinators, etc.) produce IIS-generated provider-level coverage assessments based on user-selected criteria? Yes/No
- **36.** In 2021, could providers produce IIS-generated coverage assessments based on user-selected criteria? Yes/No
- **37.** In 2021, did your 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
- **38.** In 2021, could your IIS generate data for health plans to support HEDIS reports based on query parameters (e.g. a patient age group/DOB range, list of specific individuals, geographic area, recipients of specific vaccines, etc.)? Yes/No
- **39.** In 2021, was your IIS used to generate data to support Medicaid and Medicare quality improvement based on user-selected parameters? Yes/No

Notes for BLUEPRINT: AVAILABLE	Please provide any relevant notes or comments for data provided in for this section
pt.	

DATA QUALITY CHARACTERISTIC: ACCURATE

Patient Status Assignation

- **40.** In 2021, did your IIS assign patient status when receiving an inactive flag or notification from an EHR at the **jurisdiction** level? Yes/No
- **41.** In 2021, did your IIS assign patient status when receiving an inactive flag or notification from an EHR at the **provider** level? Yes/No

Data Elements – Patient Status Indicators

Logic Guidance— Data Elements—Patient Status Indicators for individuals aged 0 – 18 years:

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

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born 1/1/2003 through 12/31/2021	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2003 through 12/31/2021	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2003 through 12/31/2021	Address unknown	IIS has never received vaccination information	YES
Unknown	Born 1/1/2003 through 12/31/2021	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born 1/1/2003 through 12/31/2021	Address not in jurisdiction	<any></any>	NO
Deceased	Born 1/1/2003 through 12/31/2021	<any></any>	<any></any>	NO
<any></any>	Born before 1/1/2003 or after 12/31/2021	<any></any>	<any></any>	NO

Patient-level data elements	Field Status (check one)	Number of patient records with date of birth from January 1, 2003 through December 31, 2021, <u>with</u> <u>field populated with data</u>	Percentage of patient records with date of birth from January 1, 2003 through December 31, 2021 with field populated with data. Denominator from Q.14 (auto-calculated)
42. Patient status indicators 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	a. □ Field present □ No field	b.#	c. Q.42b/Q.14

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.		
If your IIS cannot assign active status and only assigns inactive or deceased status, do not count the field as present.		

- 43. In 2021, did your IIS generate a roster of active patients for a provider site from your IIS? Yes/No
- 44. In 2021, could your IIS assign deceased status to an individual based on information from vital statistics? Yes/No

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

Logic Guidance—Child Immunization Coverage in IIS:

Notes on Coverage:

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 individuals residing in geographic location covered by
your IIS.

• For Q.46:

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

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born 1/1/2019 through 5/31/2020	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2019 through 5/31/2020	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2019 through 5/31/2020	Address unknown	IIS has never received vaccination information	NO
Unknown	Born 1/1/2019 through 5/31/2020	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born 1/1/2019 through 5/31/2020	Address not in jurisdiction	<any></any>	NO
Deceased	Born 1/1/2019 through 5/31/2020	<any></any>	<any></any>	NO
<any></any>	Born before 1/1/2019 or after 5/31/2020	<any></any>	<any></any>	NO

• After identifying children using the tables above, use this table to further identify children with the following vaccinations for Q.46:

General vaccination inclusions/exclusions	Include?
Both valid and invalid doses.	YES
Doses administered before January 1, 2022, including those recorded after December 31, 2021	YES

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.

YES

[†] When counting Varicella, only include those who received 1 or more dose of Varicella. Do not count history of disease.

	All Doses
45. Number of children aged 19 through 35 months in your jurisdiction at the time of query. (2020 Census data)	
46. Number of children born during January 1, 2019 through May 31, 2020 in both your jurisdiction AND IIS at the time of query who 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 wh have completed the 4:3:1:3:3:1:4 series. (Q.46/Q.45)	Q.46/Q.45 (Autocalculated)

4:3:1:3:3:1:4 Series Coverage (for children born 2018 – 2019)

Logic Guidance— Child Immunization Coverage in IIS—2 year olds:

Notes on Coverage:

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 individuals residing in geographic location covered by
the IIS.

• Q.49:

• Use the appropriate age ranges listed above and the table below to identify children to include in the assessment:

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born 1/1/2018 through 12/31/2019	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2018 through 12/31/2019	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2018 through 12/31/2019	Address unknown	IIS has never received vaccination information	NO
Unknown	Born 1/1/2018 through 12/31/2019	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born 1/1/2018 through 12/31/2019	Address not in jurisdiction	<any></any>	NO
Deceased	Born 1/1/2018 through 12/31/2019	<any></any>	<any></any>	NO
<any></any>	Born before 1/1/2018 or after 12/31/2019	<any></any>	<any></any>	NO

• After identifying children using the tables above, use this table to further identify children with the following vaccinations for Q.49:

General vaccination inclusions/exclusions	Include?
Both valid and invalid doses.	YES
Doses administered before January 1, 2022, including those recorded after December 31, 2021	YES
Doses administered on or after the child's 2 nd birthday	NO

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.	YES	
† When counting Varicella, only include those who received 1 or more dose of Varicella. Do not count history of disease.		

		All Doses
47. Num	ber of children born in 2018 and 2019. (2020 Census data)	
recei	l:3:1:3:3:1:4 series coverage percentage for children born in 2018-2019 who have ived complete 4:3:1:3:3:1:4 series before they reached 24 months of age. (2020 NIS for 2017 – 2018)	
juriso	ber of children born during January 1, 2018 through December 31, 2019 in both your diction AND IIS at the time of query who have received the complete 4:3:1:3:3:1:4 as before they reached 24 months of age?	
<i>a</i> .	Coverage – percentage of children born in 2018 – 2019 in the population who have completed the 4:3:1:3:3:1:4 series before reaching 24 months of age. (Q.49/Q.47)	(Q.49)/(Q.47) (Autocalculated)
b.	IIS Point Estimate Difference – NIS — IIS 4:3:1:3:3:1:4 series coverage percentage minus NIS 4:3:1:3:3:1:4 series coverage percentage. (Q.49a – Q.48)	Q.49a – Q.48 (Autocalculated)

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

Logic Guidance—Adolescent Immunization Coverage in IIS:

Notes on Coverage:

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 individuals residing in geographic location covered by
your IIS.

• For Q.52:

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

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born 1/1/2004 through 12/31/2008	Address in jurisdiction	<any></any>	YES
Active	Born 1/1/2004 through 12/31/2008	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born 1/1/2004 through 12/31/2008	Address unknown	IIS has never received vaccination information	NO
Unknown	Born 1/1/2004 through 12/31/2008	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born 1/1/2004 through 12/31/2008	Address not in jurisdiction	<any></any>	NO
Deceased	Born 1/1/2004 through 12/31/2008	<any></any>	<any></any>	NO
<any></any>	Born before 1/1/2004 or after 12/31/2008	<any></any>	<any></any>	NO

• After identifying adolescents using the tables above, use this table to further identify adolescents with the following vaccinations for Q.52:

General vaccination inclusions/exclusions	
Both valid and invalid doses.	YES
Tdap/Td vaccines, including those labeled as "unspecified"	YES

Any DT/DTP/DTaP-containing vaccines* given at or after age 7 years, including those labeled as "unspecified"	YES
*Doses reported as DT/DTP/DTaP-containing that were administered at or after age 7 years could reflect misreported Tdap doses. DTaP that has been misadministered at age 7 years or older may also be counted toward adolescent Tdap.	
Any undeterminable DT/DTP/DTaP/Tdap/Td-labeled dose* given at or after age 7 years, BUT before the adolescent's 18 th birthday AND before January 1, 2022 *"Undeterminable DT/DTP/DTaP/Tdap/Td" is a specific label used by some IIS to indicate doses where the contents of the dose regarding DT, DTP, DTaP, Tdap, or Td were not specified in the documentation. Doses reported under this label of "undeterminable DT/DTP/DTaP/Tdap/Td" that were administered at or after age 7 years could reflect misreported Tdap doses. If your IIS does not use the "undeterminable DT/DTP/DTaP/Tdap/Td" label, disregard this logic guidance.	YES
Doses administered before January 1, 2022, including those recorded after December 31, 2021	YES
Doses administered on or after the adolescent's 18th birthday	NO

		All Doses
	nber of adolescents aged 13 through 17 years in your jurisdiction at the time of query. O Census data)	
51. NIS 7	dap/Td coverage percentage for adolescents aged 13 through 17. (2020 NIS data)	
Dece	ber of adolescents aged 13 through 17 years (born from January 1, 2004 through ember 31, 2008) who are in 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 who have at least one dose of Tdap/Td. (Q.52/Q.50)	Q.52/Q.50 (Autocalculated)
b.	IIS Point Estimate Difference — NIS — IIS Tdap/Td coverage percentage minus NIS Tdap/Td coverage percentage. (Q.52a — Q.51)	Q.52a – Q.51 (Autocalculated)

Adult Influenza Coverage (aged 18 and older)

Logic Guidance—Adult Influenza Coverage in IIS:

Notes on Coverage:

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 individuals residing in geographic location covered by
your IIS.

• Q.55:

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

Jurisdictional Status	Age	Residence	Immunization History	Include?
Active	Born on or before 12/31/2003	Address in jurisdiction	<any></any>	YES
Active	Born on or before 12/31/2003	Address unknown	Received an immunization from a provider organization within the jurisdiction	YES
Unknown	Born on or before 12/31/2003	Address unknown	IIS has never received vaccination information	NO
Unknown	Born on or before 12/31/2003	Address in jurisdiction OR Address unknown	IIS has not received immunization information for an extended period of time* * Note that the "extended period of time" could be defined differently by each IIS	YES
Inactive	Born on or before 12/31/2003	Address not in jurisdiction	<any></any>	NO
Deceased	Born on or before 12/31/2003	<any></any>	<any></any>	NO
<any></any>	Born after 12/31/2003	<any></any>	<any></any>	NO

After identifying adults using the tables above, use this table to further identify adults with the following vaccinations for Q.55:

General vaccination inclusions/exclusions	
Both valid and invalid doses	YES
Doses of adult influenza administered on or after July 1, 2020 through May 31, 2021	YES
Doses administered before June 1, 2021, including those recorded after May 31, 2021	YES

Doses administered at any time on or after the adult's 18th birthday	YES
Doses of influenza administered to a patient during the 2020 – 2021 flu vaccination season before the patient's 18 th birthday	YES

•		All Doses
53. Numl	ber of adults 18 years or older in your jurisdiction at the time of query. (2020 Census	
54. BRFS	S influenza coverage percentage for adults 18 years or older. (2019 – 2020 BRFSS data)	
your vacci	ber of adults aged 18 years or older (born on or before December 31, 2003) in both jurisdiction AND IIS at the time of query who have at least one dose of adult influenza ne administered during the 2020 – 2021 flu vaccination season (July 1, 2020 – May 31,) at the age of 18 or older?	
a.	Coverage — Percentage of adults aged 18 years or older who have at least one dose of adult influenza administered during the 2020 – 2021 flu vaccination season (July 1, 2020 – May 31, 2021). (Q.55/Q.53)	Q.55/Q.53 (Autocalculated)
b.	IIS Point Estimate Difference — BRFSS — IIS influenza coverage percentage minus BRFSS influenza coverage percentage. (Q.55a — Q.54)	Q.55a – Q.54 (Autocalculated)

Please provide any relevant notes or comments for data provided in for this section

DATA QUALITY CHARACTERISTIC: UNIQUE

Records Management

56. In 2021, did your IIS assess the number of records that require manual resolution after the automated matching process? Yes/No

Logic Guidance:

For Q.57 & Q.58:

"Routinely" is defined as "on a set schedule as part of regular operating procedures".

57. In 2021, did your IIS routinely assess the time to perform manual data resolution of records?

Yes/No

58. In 2021, did your IIS routinely assess the percentage of duplicates in the system?

Yes/No

Notes for BLUEPRINT: UNIQUE	Please provide any relevant notes or comments for data provided in for this section

DATA QUALITY CHARACTERISTIC: ADDITIONAL DATA

Onboarding Status

Logic Guidance

Q.59:

- **Provider Site:** A provider organization that provides vaccination services and that maintains permanent records (excluding temporary or mobile immunization clinics, health fairs, etc.).
- Count physical sites, not individual providers.
- If multiple provider sites report through a single portal, count each provider site separately.
- Count each provider site only once in the table.
- "Connected with your IIS" is defined as using any of the methods listed in the columns in the table below.

59. Indicate the TOTAL number of provider sites connected with your IIS in production as of the end of 2021.

	HL7 2.5.1		Other than HL7 2.5.1			Total (auto-	
	Both Submission/ Acknowled- gement and Query/ Response	_	Response <u>only</u>	Submission/	-	Query/ Response <u>only</u>	calculated)
Mediated by a Health Information Exchange	a.	b.	с.	d.	e.	f.	g. (a+b+c+d+e+ f)
Not mediated by a Health Information Exchange	h.	i.		k.	l.		n. (h+i+j+k+l+m)
TOTAL	o. (a+h)	p. (<i>b+i)</i>	q. <i>(c+j)</i>	r. <i>(d+k)</i>	s. <i>(e+I)</i>	t. <i>(f+m)</i>	

Logic Guidance

Q.60:

- **Provider Site:** A provider organization that provides vaccination services and that maintains permanent records (excluding temporary or mobile immunization clinics, health fairs, etc.).
- **Registered intent** refers to provider sites that have indicated their intention to onboard, but have not yet started the testing process. Only include sites that intend to onboard through Meaningful Use.
- Count physical sites, not individual providers.
- If multiple provider sites report through a single portal, count each provider site separately.
- Count each provider site only once in the table.
- Count both immunizing and non-immunizing provider sites that your IIS intends to move to production or that are already in production.

60. Indicate the TOTAL number of provider sites in each onboarding category as of the end of 2021.

Onboarding	<u>Both</u>	Submission/Acknowledgement	Query/Response only
Category	Submission/Acknowledgement and Query/Response	<u>only</u>	
Registered intent, and are not testing or in production	a.	b.	c.
Currently testing, and are not in production	d.	e.	f.
In production (auto- calculated)	g. (Q.59a+Q.59d+Q.59h+Q.59k)	h. (Q.59b+Q.59e+Q.59i+Q.59l)	i. (Q.59c+Q.59f+Q.59j+Q.59m)

Notes for ADDITIONAL DATA	Please provide any relevant notes or comments for data provided in this section.