

Operations Guide

July 1, 2023 - June 30, 2024

Version 5.0



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About This Guide

The Immunization Quality Improvement for Providers (IQIP) Operations Guide:

- Reflects IQIP program policies and processes for the July 1, 2023 June 30, 2024, project year.
- Defines IQIP requirements and outlines the steps or components necessary to meet the requirements.
- Communicates IQIP programmatic information to state, local, and territorial immunization programs.

Overview

The IQIP Operations Guide details the requirements and standards for CDC's IQIP program. It is intended for use by CDC's immunization program awardees that receive Vaccines for Children (VFC) funding under cooperative agreement CDC-RFA-IP19-1901, "Immunization and Vaccines for Children." This guide serves as a companion document and further explains the required activities in the "Provider Quality Improvement" chapter of CDC's Immunization Program Operations Manual (IPOM).

Since awardees are responsible for implementing the IQIP program, they are required to ensure their IQIP operations are compliant with the standards outlined in this guide. This guide should serve as the primary IQIP reference for awardees developing or updating policies and procedures specific to their immunization program.

CDC develops and administers the IQIP program. The quality improvement processes and strategies outlined as a part of IQIP may be used by unaffiliated parties but, to avoid confusion, unaffiliated parties are encouraged to distinguish their initiative's name from CDC's IQIP program.

Design

Modules are color-coded for easy reference.

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IQIP programmatic requirements for awardees are indicated by a grey box with a green check icon.



IQIP Program Requirement

A summary of all IQIP requirements is provided in <u>Appendix A: Summary of IQIP Program Requirements</u>. Important and supplemental information can be found in boxes throughout the guide.

Terms Used in this Guide

For purposes of this guide:

- Assessment reports collectively refer to patient line lists and vaccination coverage reports.
- Awardee, program, and <u>IQIP staff</u> are used interchangeably to refer to state, local, and territorial immunization programs that operate VFC programs and conduct IQIP activities with cooperative agreement funding from CDC.
- <u>CocASA</u> refers to the Comprehensive Clinic Assessment Software Application (CoCASA), which is a tool for assessing immunization coverage and practices within a provider clinic, or any other environment where immunizations are provided.
- <u>Disinformation</u> is the false information deliberately created and disseminated with malicious intent. Frequently combined with the term "misinformation" and written as "mis/disinformation".
- <u>Immunization</u> is the process of being made immune or resistant to an infectious disease, typically by the administration of a vaccine. It implies that a person has had an immune response.
- <u>Immunization information system (IIS)</u> is a confidential, population-based, computerized database that records all vaccine doses administered by participating providers to persons residing within a given geopolitical area.
- <u>IIS Data Quality Blueprint</u> defines a set of measures and activities, organized by key IIS data quality characteristics, to drive data quality improvement among IISs.
- <u>IIS Dashboard</u> The IIS Dashboard contains data quality reports for each jurisdiction's IIS which help identify strengths and areas for improvement based on information from the 2019-2021 IISARs, the AIRA Measurement and Improvement Initiative, and other data sources.
- IQIP candidate provider locations are the subset of VFC-enrolled provider locations most likely to offer routine vaccination services for their patients, based on their "VFC provider type" classification in the Provider Education, Assessment, and Reporting system (PEAR). These provider locations are most likely to benefit from the implementation of IQIP strategies, which focus on routine vaccination workflow. CDC calculates the number of required IQIP visits from this subset instead of from the total number of VFC-enrolled provider locations. Awardees may still conduct an IQIP visit with a VFC-enrolled provider location not defined as an IQIP candidate if the awardee determines the provider location offers routine vaccination services.
- IQIP coordinator refers to an individual responsible for managing an awardee's IQIP program.
- <u>IQIP consultant</u> or <u>consultant</u> refers to an individual who conducts IQIP site visits, check-ins, or follow-ups, or otherwise communicates with provider staff regarding IQIP efforts on behalf of an immunization program.
- **IQIP Database** is the system for entering, monitoring, and exporting IQIP data. It is built on the REDCap platform and is accessible via the Secure Access Management Services (SAMS) portal.
- <u>IQIP Database File Repository</u> is located in the IQIP Database and contains IQIP resources that could be used by IQIP consultants to support IQIP site visits and subsequent provider engagement.
- <u>IQIP Library</u> is a library located in the ISD Awardees SharePoint Portal. The library contains resources that can be used by both IQIP coordinators and IQIP consultants. See <u>Appendix B: Navigating the IQIP Library in the ISD Awardees SharePoint Portal</u> on its structure and how to locate resources in the library.
- <u>Misinformation</u> is the false information shared by people who do not intend to mislead others. Frequently combined with the term "disinformation" and written as "mis/disinformation".
- Power BI Awardee IQIP Dashboards provide visualizations of IQIP datatools for monitoring IQIP program

implementation, such as data quality, data trends, and timeliness of site visits, check-ins, and follow-ups. The dashboards present data from the IQIP Database and are refreshed every six hours.

- <u>Prescriber</u> refers to provider staff responsible for prescribing vaccines. This refers not only to physicians, but also to physician assistants and nurse practitioners as applicable.
- <u>Provider</u> is used inclusively in this guide to describe both health care providers and provider staff who offer vaccination services through the VFC program to patients aged 0–18 years.
- <u>Provider Education Assessment and Reporting System (PEAR)</u> an online Vaccines for Children (VFC) program oversight management tool for awardees and CDC. The system collects relevant VFC data, including VFC enrolled provider information, to support overall program activities.
- **Provider location** refers to a specific VFC provider facility, practice, or clinic.
- <u>Strategy implementation plan</u> represents the compiled list of action items agreed upon for each selected strategy during the site visit, check-ins, and follow-up.
- <u>Tele-IQIP</u> refers to the awardee option to conduct IQIP site visits remotely using a virtual platform. Awardees may conduct IQIP site visits in-person or remotely via tele-IQIP.
- <u>Vaccination</u> is the use of vaccines to produce immunity to a disease. This usually entails administering an antigenic material, or vaccine, by injection.
- <u>Vaccination coverage</u> refers to the percentage of people in a defined cohort who have received specific vaccines. In the context of this guide, "coverage" does not refer to health insurance coverage.

Additional Resources

Additional resources to assist awardees are mentioned throughout this guide. Many of these resources are available through the IQIP Database's File Repository or the main IQIP Program Library found in CDC's Immunization Services Division (ISD) Awardees SharePoint portal. Immunization program managers may request access for their IQIP staff through their assigned ISD Immunization Operations and Services Branch (IOSB) project officer.

<u>Future Changes to the Guide</u>

Modules in the IQIP Operations Guide will be updated and appendices added as needed. CDC will notify awardees by e-mail anytime changes are made, and updated versions will be posted in the ISD Awardees SharePoint portal.

Questions

Awardees should direct any questions about the IQIP Operations Guide to their IOSB project officer or to IQIP@cdc.gov with their assigned IOSB project officer copied.

Provider-Level Immunization Quality Improvement: Background and Overview

<u>History of Provider-Level Coverage Assessment and Feedback</u>

The VFC program was created by the Omnibus Budget Reconciliation Act of 1993 as a new entitlement program required to be a part of each state's Medicaid plan. The program was officially implemented in October 1994. VFC funds were awarded to state, local, and territorial jurisdictions to conduct quality assurance reviews (QARs or VFC visits), which were formal site visits to assess VFC-enrolled providers' compliance with the requirements of the VFC program, beginning in 1995. CDC later developed and implemented the "Assessment, Feedback, Incentives, and eXchange" (AFIX) program in partnership with its Immunization and Vaccines for Children cooperative agreement awardees. Under this program, awardees conducted visits to selected VFC-enrolled providers, performed provider-level vaccination coverage assessments and worked with them to implement evidence-based strategies to increase vaccine uptake. The assessment visits were implemented in public-sector clinics to improve immunization practices and vaccination coverage.

In 1999, the <u>National Vaccine Advisory Committee (NVAC)</u>¹ recommended that all immunization providers, both public and private, should have their vaccination coverage assessed annually and that private providers should be assisted in this effort by state, local, and territorial health departments. This recommendation provided support to expand implementation of AFIX to private provider settings. In 2000, the Task Force on Community Preventive Services completed a review of immunization-focused

quality improvement (QI) literature and "strongly recommended" assessment and feedback (key components of the AFIX process) in the Guide to Community Preventive Services (Community Guide)². The separate VFC and AFIX initiatives were combined in 2000 to allow the programs to achieve a broader reach among both public and private providers. That year, supplemental funds were awarded to 37 awardees to support a combined VFC-AFIX initiative. A 2011 update of the task force's review concluded that assessment and feedback remained effective interventions for improving vaccination coverage.

Barriers to Immunization Quality Improvement

- Competing priorities at the awardee level
- Diverse personalities and skill sets among consultants
- Varying levels of engagement among providers
- An increasingly complex immunization schedule
- Inadequate immunization information infrastructure
- Limited ability to access and use existing data
- Constraints on time to spend with providers
- Provider-reported QI fatigue or administrative burden
- Decreased Vaccine Confidence

Recommendations from CDC scientific and programmatic staff in 2017–18, resulting from operational research and an internal evaluation of the AFIX program, focused on the need to refine CDC's approach to provider-level immunization QI efforts.

Recommendations also focused on the need to scale such efforts to function within the boundaries of constraints faced by CDC and awardee immunization programs as well as the current health care environment. Those recommendations resulted in the transition from AFIX to IQIP. Presently, 61 awardees receive VFC Compliance and Quality Improvement (formerly "VFC-AFIX") funding.

The Office of the Inspector General (OIG) initiated an audit of the VFC program in December 2021 to determine whether CDC VFC awardees conducted site visits at enrolled and active VFC program providers locations that administer routine childhood vaccines according to program requirements. Because the IQIP program is implemented using the same funds as the VFC program, it is also included in the scope of the Office of the Inspector General's (OIG) oversight activities. Therefore, IQIP programs need to observe the same level of diligence in assuring appropriate use of funds as they would the VFC program and assure that they are implementing the IQIP program according to CDC program requirements.

IQIP Program

QI programs analyze processes and use a systematic approach to improve performance. The basic QI process follows these steps:

- State the problem and desired result.
- Use data to understand the problem.
- Identify strategies for improvement.
- Implement strategies and refine as needed.
- Evaluate outcomes.

IQIP is an immunization QI program for health care providers enrolled in the VFC program. The purpose of IQIP is to promote and support the implementation of provider-level strategies designed to increase on-time vaccination among child and adolescent patients in adherence to the Advisory Committee on Immunization Practices' (ACIP) routine <u>immunization schedule</u>.³ IQIP is specifically designed to accommodate the unique barriers that face immunization program awardees in delivering quality improvement services to providers.

IQIP Strategies

- Facilitate return for vaccination. UPDATED
- 2. Leverage IIS functionality to improve immunization practice.
- 3. Give a strong vaccine recommendation (include HPV vaccine if the provider has adolescent patients).
- 4. Strengthen vaccination communications.
- 5. Awardee-developed custom strategy (if offered)

For detailed overview of each strategy, its rationale and possible implementation, see <u>Module 4 – IQIP</u> <u>Core Strategies</u>.

IQIP serves to assist and support health care providers by identifying opportunities to improve vaccine uptake and to ensure providers are:

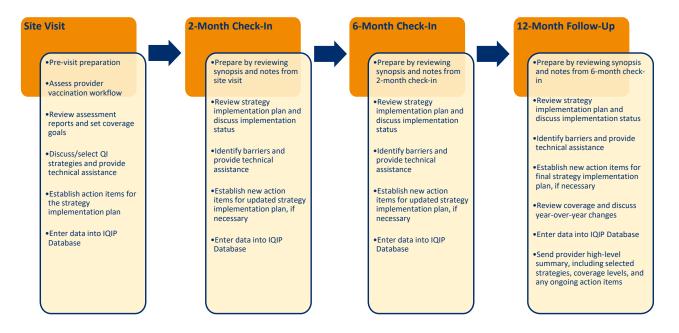
- Aware of and knowledgeable about their vaccination coverage and missed opportunities to vaccinate
- Supported when implementing new vaccination service delivery strategies and incorporating changes into their current practices
- Capable of sustaining changes and improvements to their vaccination delivery services
- Able to use available data from the IIS and/or electronic health record (EHR) to improve services and coverage

Using the IQIP process and available data, awardees assess vaccination service delivery practices of selected VFC providers identify suboptimal practices and gaps that allow missed opportunities to occur, then collaborate with them to identify strategies designed to enhance their vaccination workflow to improve vaccine uptake. Vaccination coverage is measured at or near the date of the site visit to establish baseline performance and again one year later to evaluate progress.

Technical assistance and support are given via telephone two and six months after the site visit to aid providers in staying on course with their strategy implementation plan. A final discussion of strategy implementation plan progress and sustainability of practice changes occurs after 12 months.

Because the IQIP cycle spans 12 months, it is expected that the cycle will begin and end in different project years. See <u>Appendix C : IQIP Timeline Examples</u>.

IQIP Cycle



In-Person Site Visits and Tele-IQIP Site Visits

When the IQIP program was launched in 2019, in-person site visits were the standard, with no option for awardee IQIP programs to perform site visits virtually. During the COVID-19 pandemic and prior to the availability of a vaccine against the disease, no-contact prevention measures and restrictions on local travel prevented programs from performing IQIP site visits in person. To support programs in continuing IQIP activities, CDC created a virtual site visit option called "tele-IQIP". After COVID-19 transmission decreased to levels where awardee staff could resume in-person site visits, CDC staff observed several tele-IQIP visits to gauge the level quality achievable via the remote option. Findings indicated that site visits conducted using a virtual platform offered a comparable level of quality to in-person site visits, and as a result, the virtual tele-IQIP site visit was made a permanent option for awardees in January 2023. CDC tele-IQIP guidelines must be followed. See the *Updated Tele-IQIP Guidance (January 2023)* resource located in the IQIP Library.

IQIP Program Staffing



Requirement: Awardees must designate an individual to serve as IQIP coordinator.

Awardees must designate an IQIP coordinator and have sufficient staff to implement and monitor IQIP program activities. Awardees may have various staffing models and jurisdictional job titles, but there should be clear understanding of who holds the title of IQIP coordinator and acts as the designated IQIP point of contact for CDC. IQIP coordinators are responsible for ensuring all awardee IQIP staff receive guidance and other information shared from CDC.

Awardees must notify their IOSB project officer and IQIP@cdc.gov any time there is a change in the individual filling this role, including staff who may be in the role temporarily.

Though staffing structure and job titles may vary among awardees, the positions providing support to an awardee IQIP program ideally include:

IQIP Staff and Support					
Immunization Program Manager					
CDC Field Assignee	The CDC field assignee, most often a public health advisor, may be responsible for awardee activities that fall under any of the roles mentioned here, including ensuring fulfillment of CDC reporting requirements.				
IQIP Coordinator	 The IQIP coordinator manages the awardee's IQIP program. Responsibilities include: Developing and maintaining an awardee IQIP operation guide that is in alignment, but can have awardee-level variances, with the current CDC's IQIP Operation Guide. Developing and implementing monitoring and evaluation procedures to ensure IQIP program conformity and data integrity. Annual project year training for all IQIP consultants conducting IQIP activities for the awardee. Program orientation and initial IQIP training of all IQIP consultants who conduct IQIP activities for the awardee, including direct-hire, contract, or sub-awardee-level staff. Thi training must be successfully completed prior to the new consultant conducting IQIP activities independently. Observing awardee IQIP consultant staff annually during IQIP site visits, check-ins and/or follow-ups. Directing the IQIP consultants' work to support provider-level quality improvement according to current CDC and awardee-specific IQIP requirements and operational standar Working with the awardee's IIS manager to support IQIP program activities using the IIS for the child, adolescent, and older teenage cohorts (if IIS functionality allows) as well a developing activities related to the core IQIP strategy to leverage IIS functionality to imprimmunization practice. Serving as the awardee's primary point of contact with CDC IQIP staff. Participating on behalf of the awardee in CDC-led IQIP meetings, calls, workgroups, and webinars. 				
IQIP Consultants	 IQIP consultants conduct IQIP activities with selected VFC provider locations on behalf of the awardee IQIP program. Responsibilities include: Conducting IQIP site visits with providers to ascertain the vaccination workflow, identify opportunities for process improvement, and provide technical assistance and other resources to develop a strategy implementation plan tailored to the individual provider location. Generating (or working with the provider to generate) assessment reports of provider-level vaccination coverage for baseline and follow-up measurements of progress of children, adolescents, and older- teen (if applicable) age cohorts. Collaborating with provider staff through 2- and 6-month check-ins to provide support for the selected QI strategies and related activities. Conducting 12-month follow-ups to assess progress made on the selected QI strategies. Timely and accurate data entry into the CDC developed IQIP database for each stage of the IQIP cycle. 				
IIS Manager	 The IIS manager is responsible for the overall direction and technical management of an awardee's IIS. This includes IIS functions and operations that intersect with the IQIP purpose: Supporting CDC's IIS functional standards, which specify the operations, data quality, and technology needed by IISs to support vaccination providers, immunization programs, and other immunization stakeholders. Onboarding providers for data exchange between the provider's EHR and the IIS. Monitoring and ensuring high data quality in the IIS. Delivering training to stakeholders, such as IQIP staff and providers. Supporting data needs for IQIP, including the integration of vaccination coverage assessment into IIS functionality. Using the IIS Data Quality Report, <u>IIS Data Quality Blueprint</u>, and <u>IIS Dashboard</u> to identify strategies and activities for the jurisdiction. 				

Module 1 – Provider Location Selection

Overview



Requirement: Awardees are required to initiate IQIP activities with 25% of CDC-defined IQIP candidate providers within their jurisdiction and to conduct timely check-in and follow-up activities with those providers already engaged in the process.

Awardees must initiate IQIP cycles with 25% of CDC-defined IQIP candidate provider locations annually as well as continue other IQIP activities with providers already engaged in the process. Before the start of the project year, CDC calculates the number of required IQIP visits for each awardee using VFC provider data in PEAR. The number of required visits does not change over the course of the project year, even if new providers enroll or existing providers unenroll. CDC includes the PEAR provider types most likely to offer routine pediatric vaccination services and excludes the remaining provider types from the denominator when calculating an awardee's 25% target. Awardees may still conduct IQIP visits with VFC-enrolled providers from any PEAR provider type they choose, so long as the provider offers routine vaccination services for the childhood or adolescent IQIP age cohorts. Each provider type sees a unique group of patients and has their own strengths and challenges. Therefore, CDC encourages awardees to select providers across various provider types to better serve a cross section of the jurisdiction's population.

PEAR Provider Types* (√ indicates provider types included when calculating number of required IQIP visits)				
Addiction Treatment Center	Private Practice (e.g., family practice, pediatric, primary care)			
Birthing Hospital or Birthing Center	✓ Private Practice (e.g., family practice, pediatric, primary care) as agent for FQHC/RHC-deputized			
✓ Community Health Center	✓ Public Health Department Clinic (state/local)			
Community Vaccinator (non-health department)	✓ Public Health Department Clinic (state/local) as agent for FQHC/RHC-deputized			
✓ Correctional Facility	Refugee Health Clinic			
Family Planning Clinic (non-health department)	✓ Rural Health Clinic			
✓ Federally Qualified Health Center	✓ School-Based Clinic (permanent clinic location)			
Hospital	STD/HIV Clinic (non-health department)			
✓ Indian Health Services, Tribal, or Urban Clinic	Teen Health Center (non-health department)			
Juvenile Detention Center	Urgent Care Center			
✓ Migrant Health Center	✓ Women, Infants, and Children (WIC) Clinic			
Mobile Provider	✓ Other			
Pharmacy				

^{*}Refer to Appendix D: PEAR Provider Type Definitions to get more information on PEAR provider types.

Awardees have flexibility to let their program priorities and judgment inform their provider location selection. Awardees also have the latitude to change their selection and prioritization criteria from project year to project year to best support program priorities.

CDC encourages awardees to consider and use selection criteria that best apply to their jurisdictions but cautions against using awardee convenience as criteria for provider selection. Selecting provider locations based on factors such as ease of access only may result in fewer opportunities to engage in immunization quality improvement work among VFC-enrolled providers serving groups higher risk of being under vaccinated. Selection criteria may be applied individually or in combination (see <u>Table: Example</u> provider selection and prioritization criteria for IQIP).

Table: Example provider selection and prioritization criteria for IQIP				
Selection Criteria	Comment			
Providers with large patient populations in either of the required IQIP age cohorts (2-year-olds and/or, 13-year-olds)	Maximizes the number of patients who may be impacted from IQIP strategy implementation and action items.			
Providers residing in areas identified as high need based on the Social Vulnerability Index +	Immunization QI strategies and action items can assist with efforts to increase timely vaccination with the populations identified as socially vulnerable.			
Providers who serve populations experiencing preventable health disparities++	May support providers' efforts to better serve the specific needs and concerns of groups that have been economically or socially marginalized.			
Providers located in areas with low vaccination coverage	May focus on provider locations in areas with identified coverage disparities (NIS, NIS-teen and/or IIS data).			
Provider location vaccination coverage*	May base selection on vaccination coverage for any ACIP- recommended vaccine or vaccine series, but should measure coverage equally for all IQIP candidate providers at approximately the same selection time, may use any IQIP age cohort.			
Lack of Immunization Information Systems (IIS) participation by provider	Selecting providers with minimal IIS proficiency or participation can assist with increasing their familiarity with and use of the IIS, reducing the time it takes for clinical decision-making and documenting vaccine administration data.			
Time since last QI visit	Offers immunization QI support to providers who have not been visited by the awardee in recent project years.			
Each provider receives a visit every five years	Ensures visits to all eligible providers within a jurisdiction and creates an opportunity to learn from high-performing providers.			
Other	Additional criteria that awardees believe address the specific needs and challenges of their jurisdiction that could result in increased timely vaccination of its pediatric population.			

^{+&}lt;u>https://www.atsdr.cdc.gov/placeandhealth/svi/index.html</u>

⁺⁺https://www.cdc.gov/healthequity/whatis/index.html

^{*}If ranking provider locations by coverage for a given vaccine or series to select sites for visits, it is important to base the ranking on coverage data that were generated at about the same time using the same assessment software and parameters to maximize consistency of data compared.

Vaccine Equity and IQIP

On-time vaccination throughout childhood is essential because it helps provide immunity before children are exposed to potentially life-threatening diseases. However, racial and ethnic disparities in vaccination coverage rates persist, leaving many children at risk. The IQIP program offers awardees the opportunity to address vaccine equity by focusing their efforts on VFC-enrolled providers serving the racial and ethnic communities where these disparities exist. CDC encourages awardees to use the IQIP program to partner with these providers in reaching these populations and increasing vaccine access.

Selecting provider locations based on factors such as ease of access only may result in fewer opportunities to engage in immunization quality improvement work among VFC-enrolled providers serving groups with higher risk of being under immunized.

To address vaccine equity, awardees should consider patient population factors (e.g., social, geographic, economic, etc.) during their provider selection process. Some of these factors include:

- Education, income, and wealth gaps
- Racism and other forms of discrimination
- Gaps in healthcare access
- Transportation and neighborhood conditions
- Lack of trust because of past medial racism and experimentation

In addition to prioritizing providers serving communities experiencing vaccine inequities, awardee IQIP programs can also partner with these and other VFC-enrolled providers to apply health equity principles to their vaccination services (e.g., written and oral communications about vaccines) to help increase vaccine acceptance. CDC encourages awardees to connect with health equity initiatives in their jurisdictions and leverage the direct access to vaccination providers supported by the IQIP program.

For more information in vaccine equity please see the following resources:

Health Equity Guiding Principles for Inclusive Communication | Gateway to Health Communication | CDC

Partnering for Vaccine Equity | CDC

COVID-19 Vaccine Equity for Racial and Ethnic Minority Groups (cdc.gov)

Module 2 – Assessment Report Generation

Overview

QI strategies are intended to enhance provider performance in vaccinating pediatric patients on time, in adherence to the ACIP routine immunization schedule. IQIP assessment reports help inform awardees and providers when selecting QI strategies for implementation or improvement (see <u>Table: Benefits of IQIP assessment reports</u>). IQIP assessment reports include, but are not limited to:

- Required: vaccination coverage reports at the initial site visit and 12-month follow-up
- Recommended: One or more patient line lists; examples include, but are not limited to:
 - o Patients who are not up to date (UTD) or who are missing vaccinations
 - o Patients with missed opportunities for vaccination
 - o Invalid doses

Table: I	Benefits	of IQIP	assessment	reports
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	Report Type		
Benefit	Vaccination Coverage (Required)	Patient Line Lists (Recommended)	
Identify baseline coverage	✓		
Select coverage goals	✓		
Examine records of individual patients as examples of opportunities to improve performance		✓	
Inform the development/delivery of technical assistance for the strategies selected	✓	✓	
Evaluate year-over-year coverage change	✓		

The qualitative data gathered during the vaccination workflow assessment and other discussions are critical components to strategy selection. When no assessment data is available at a provider location, consultants must be prepared to focus provider attention on areas for improvement in their vaccination workflow and document clearly the change in processes over the 12-month IQIP cycle.

<u>Assessment Data Sources</u>



Requirement: CDC requires assessment of coverage for any provider receiving an IQIP site visit or 12-month follow-up if the provider has IIS data that are appropriate and available for assessment.

IIS Data

CDC recommends providers generate their own IQIP coverage assessments. Providers who generate coverage assessments on a regular basis and share the information with staff are better equipped to measure improvement and success. If providers are not comfortable generating IIS-based assessment reports, IQIP consultants should deliver or arrange for technical assistance to teach them to generate assessment reports independently. Working with providers to improve their familiarity and use of IIS functionality fulfills the IQIP core strategy "leverage IIS functionality to improve immunization practice." The goal is for providers to monitor coverage and patient line lists independently at regularly scheduled intervals rather than doing so only when selected for an IQIP visit.

IQIP consultants should generate assessment reports in advance of the IQIP visit and be confident and knowledgeable enough to review the data in detail with the provider. Assessment reports should be generated using the IIS, or with an assessment module integrated with the IIS. Awardees may use <u>CoCASA</u> if the IIS is not yet able to generate assessment reports. However, CoCASA version 17 will not be updated moving forward. To support IQIP program data needs, awardees dependent on CoCASA for coverage assessments will need to develop IIS capability to assess vaccination coverage according to IQIP program assessment specifications.

Note on Confidentiality

Patient confidentiality is an important issue to providers. Consultants should be prepared to discuss a provider's concerns.

Some providers may ask for documentation showing that consultants have the right to extract information from their patients' medical records and that assessments will maintain the confidentiality of the information. Others may ask about the state or federal regulations such as the Health Insurance Portability and Mortality Weekly Report (MMWR) has published information on the privacy rule.*

IQIP coordinators must address the issue of confidentiality with those conducting IQIP assessments by establishing procedures for distribution, handling, and disposal of confidential information. For example, programs can develop an oath of confidentiality for IQIP consultants and ensure other staff is following procedures to protect confidentiality.

In addition, though it is not considered a confidentiality issue, some providers might ask about regulations or policies that do or do not require them to report to the IIS or other mechanisms that support/encourage reporting, such as vaccine ordering through IIS (VTrckS, ExIS) and meaningful use. Consultants should be prepared to address these issues and/or provide resources for more information.

^{*}https://aspe.hhs.gov/report/health-insurance-portability-and-accountability-act-1996

⁺https://www.cdc.gov/mmwr/pdf/other/m2e411.pdf

Electronic Health Record (EHR) Data

EHR-based coverage data may be used for IQIP assessments when IIS data are unavailable or if the provider prefers to use the EHR. Providers that fall into this category may be ideal candidates for the core IQIP strategy "leverage IIS functionality to improve immunization practice," especially those that have IIS data but do not trust the data's accuracy. IQIP consultants may provide technical assistance to these providers on how to improve IIS data quality. However, the responsibility for generating EHR-based reports, if used, falls on the provider staff. The IQIP consultant is not responsible for using, learning, or delivering technical assistance for EHR software.

Manual Chart Review Data

CDC recognizes that IIS or EHR data are not available for some providers. In those circumstances, a consultant may opt to perform manual chart reviews to calculate coverage, but CDC discourages this practice. Manual chart reviews are labor-intensive. While coverage assessments are beneficial, the benefits must be considered along with the costs, which include (a) time inconveniencing provider staff and using provider space and resources and (b) time devoted to chart pulls instead of delivering technical assistance to the provider or other providers within the jurisdiction. When coverage assessments are not performed, consultants should proceed with all other aspects of the IQIP process as normal. The site visit and calls should be conducted as usual, but the focus will be solely on QI strategies and technical assistance, without discussion of coverage. The "Leverage IIS Functionality to Improve Immunization Practice" strategy would be a worthwhile strategy to work on with these providers if the awardee's IIS is ready for provider use.

IIS Data Selection and Management

IISs can support providers in delivering effective and efficient vaccination services. By reviewing IIS-based vaccination coverage with providers, IQIP consultants can assist providers in monitoring and supporting vaccine uptake among children and adolescents. Every IIS is unique, so it is important for consultants to understand their IIS's functionality and current limitations prior to a site visit. Even if a provider chooses to generate vaccination coverage reports or patient line lists from their EHR, the consultant understanding the pros and cons of available immunization data resources can help to guide management and assessment report discussions. IQIP coordinators should work with the IIS staff to ensure IIS assessment reports comply with the IQIP requirements and are easy to understand and available for providers to generate or reference.

Vaccination coverage assessments should be generated for the provider's active patients. Active patients are those individuals for whom the provider has responsibility for vaccinating and can vary depending on the awardee IIS platform (one- to -one or one- to -many relationship for patients and providers). The American Immunization Registry Association (AIRA) provides guidance on managing patient active/inactive status⁴ (PAIS) in the IIS. Interpretation of coverage assessments may be complicated by the inclusion of inactive patients for whom the provider no longer holds responsibility for vaccination. IQIP consultants clarify how patients are included in the coverage assessment denominator with the provider. Awardees should provide technical assistance with the provider on how to incorporate using the IIS active and inactive status procedure for their IIS. IQIP consultants should:

- Ensure the IQIP site visit (and its scheduling) is the first awardee-provider contact of the IQIP cycle.
- Avoid assigning tasks for provider staff to complete in advance of the IQIP site visit. Tasks assigned

⁴ https://repository.immregistries.org/files/resources/5cf691f15b26e/aira mirow mgmt of patient status in iis - 6 1 2020.pdf

without the context and explanation of the full IQIP process provided during the site visit may deter their desire to participate in IQIP.

Patient active/inactive status not only serves to link a patient to a provider for the purpose of coverage assessment and reminder/recall efforts, but it also identifies who is responsible for a patient's immunization status. Awardees should take steps to assure that if a provider location has inactivated a patient that the patient is still assigned to a responsible party (e.g., district, city, county, or other local public health) within the geographic jurisdiction. This will ensure that although the provider location will not be attempting to contact the patient, there is still a responsible party, or "safety net," that will conduct outreach and attempt to locate the patient and connect them with an immunization provider. See <u>Patient Status in Immunization Information Systems</u> for guidance on managing patient active/inactive status (PAIS) in IIS, and <u>Template for Provider Guidance on Patient Status Management</u> for guidance on discussing management of their patients' PAIS in the IIS.

Provider staff will not learn how to properly maintain their IIS data when awardee staff cleans the data for them. Data quality improvements attributable to awardee staff are not sustained if proper IIS data management is not incorporated into the provider's routine workflow. Consultants should:

- Avoid cleaning IIS data for the provider to prevent engaging in time-consuming discussions
 about data validity, thus making the data the focus of the visit rather than process improvement.
 Instead, capitalize on the opportunity to teach the provider staff how to more effectively maintain
 their IIS data if the initial assessment reports include inactive patients.
- Encourage the provider to select the "Leverage IIS Functionality to Improve Immunization Practice" IQIP strategy and to incorporate routine data maintenance and periodic self-assessments of coverage into the provider's strategy implementation plan.

If the provider improves IIS data management practices during the IQIP cycle, then comparison of initial coverage to 12-month coverage will be affected by the changes in data quality. These changes, however, are usually indicated by decreases in patient denominator size. IQIP consultants must consider changes in denominator size when interpreting changes in coverage. This topic is discussed in more detail in Module 8-12-Month Follow-Up and Appendix E : Interpretation of IQIP Coverage Data.

Assessment Specifications (Cohorts, Parameters, and Doses)



Requirement: Awardees must assess both childhood and adolescent cohorts if the provider has any active patients in either cohort.

Awardees must assess (childhood and adolescent) cohorts in which the provider has any active patients and for which IIS or EHR data are available. Awardees may assess the older teen cohort if the provider has any active patients in that cohort. CDC discourages assessments based on manual chart review (see Module 2 – Assessment Report Generation, Manual Chart Review Data). The recommended age cohort for childhood assessments is 24–35 months, and for adolescent assessments is 13 years, and for older teen assessments is 17 years (see Table: Recommended parameters for IQIP coverage assessments by age cohort). These parameters best facilitate evaluation of on-time vaccination performance according to the ACIP-recommended immunization schedules.

Table: Recommended parameters for IQIP coverage assessments by age cohort				
	Assessment Cohort			
Recommended Parameter*	Childhood	Adolescent	Older Teen⁺	
Patient age	24–35 months	13 years	17 years	
Patient evaluated at/compliance by	2nd birthday	13th birthday	17th birthday	
Assessment "as of" date	Assessment date	Assessment date	Assessment date	

^{*}Variations are acceptable if assessment software cannot accommodate the recommended parameter

CDC requires assessment of coverage for eight childhood and three adolescent vaccines. Awardees may also assess provider vaccination coverage for older teens, if desired (see <u>Table: Coverage to report by age cohort</u>). IQIP Coordinators should collaborate with the awardee IIS Coordinator to meet the IQIP required assessment parameters for IIS reports.

[†]Optional IQIP assessment cohort

Table: Coverage to report by age cohort			
Reporting Condition	Childhood	Adolescent	Older Teen*
Required	4 DTaP 3 IPV 1 MMR UTD Hib UTD HepB 1 VAR UTD PCV13 4:3:1:UTD:UTD:1:UTD series	1 Tdap 1 MenACWY UTD HPV	
Optional	UTD RV 2 HepA UTD Influenza UTD COVID-19‡	1 HPV UTD HepB 2 MMR 2 VAR 2 HepA UTD IPV UTD Influenza UTD COVID-19#	1 Tdap 2 MenACWY UTD HPV 1 MenB† UTD Influenza UTD COVID-19‡

^{*}Optional IQIP assessment cohort

‡See https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html#note-covid-19 for description and timing of COVID-19 vaccination series by age group and manufacturer[GSB(1] [PS((2)])

Assessment reports should include all active patients in the cohorts assessed. For IQIP purposes, there must be a minimum of one active patient in either cohort. All providers benefit from periodic quantitative performance assessments, no matter how large or small their patient population. Awardees may deviate from recommended assessment parameters if the parameters cannot be accommodated by available assessment software. Awardees should consider their IIS functionality to determine the best measure of on-time vaccination if unable to produce the IQIP-recommended coverage reports. Consultants should always use the same parameters for both the initial and the 12-month follow-up assessments. In nearly all cases, all assessments within each awardee jurisdiction should be conducted using the same methods and parameters.

Assessment of older teens allows for the review of provider-level on-time vaccination for doses due after the adolescent assessment age (i.e., after age 13 years). Such doses include 2 MenACWY, 1 MenB, and annual influenza vaccine.

[†]Measures initiation of the 2-dose MenB series, which may be administered based on individual clinical decision to adolescents not at increased risk age 16–23 years (preferred age 16–18 years). See https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.htm-l#note-mening-b for more information.

Timing and Generation of Assessment Reports

Consultants must review initial and 12-month coverage reports with provider staff except in instances where IIS or EHR data are not available for assessment. To accurately reflect the provider location's vaccination coverage, the reports should be run during or shortly before site visit and 12-month follow-up. Assessment reports should be generated within one week of the site visit and 12-month follow-up. to accurately reflect the provider's coverage at those times (i.e., refrain from running coverage reports in bulk for site visits that will be conducted at different times). If this is not possible (e.g., scheduling difficulties or limited access to coverage report functionality), reports must be run no earlier than one month prior. Initial and 12-month coverage data must be reported in the IQIP Database. CDC encourages the use of patient line lists during the site visit to demonstrate examples in the provider's practice where vaccination delivery processes could be improved.

Although not required, the IQIP Database allows for reporting of 6-month coverage. There is no option for reporting of 2-month coverage.

Assessment reports may be generated and analyzed more frequently than CDC requires, but this practice is discouraged unless all the following criteria are met:

- Generating the assessment reports does not require the IQIP consultant to visit the provider location.
- The burden on provider and awardee staff for generating coverage assessments is minimal (i.e., assessments are completed using the IIS, assessment module integrated with the IIS, or the provider's EHR).
- Assessments are generated by provider staff or (if necessary) jointly by the IQIP consultant and provider staff, ideally as a component of the "leverage IIS functionality to support immunization practice" strategy. EHR assessments should be generated by the provider staff only.

In general, providers should run assessment reports at a frequency greater than that required by CDC only when providers can generate—or be taught to generate—the assessment reports independently.

Assessment reports generated using CoCASA do not meet the above criteria. CoCASA is not intended to be used by provider staff, and CDC does not recommend that IQIP consultants provide CoCASA-related technical assistance for providers.

Module 3 – Data Collection and Reporting

IQIP Database Overview

The IQIP Database is a data entry and analysis tool built on the REDCap* platform and is used to promote and support immunization quality improvement activities at the provider level. IQIP consultants record provider-level data and notes at each step of the IQIP cycle. The database is designed to:

- Offer simple navigation and data management.
- Help with scheduling and planning by offering calendar functionality.
- Facilitate the delivery of technical assistance customized to each provider using narrative data entry fields.
- Generate editable reports to share with providers.
- Provide a dashboard to monitor visit status throughout the IQIP cycle.
- Simplify retrieval of data and reports for review and analysis.
- Reduce unnecessary data entry.
- Record data for providers engaged in either IQIP or an alternate QI program (see Module 9 Alternate QI Program Credit).

IQIP Database User Guide and Training Resources

Detailed information about the IQIP Database is provided in the IQIP Database User Guide. The user guide provides an overview and screenshots of IQIP Database features, a step-by-step tutorial for data entry and monitoring for the entire IQIP cycle, and guidance for working with data reports. In addition, a series of tutorial videos covering all aspects of the IQIP Database is available at https://www2.cdc.gov/vaccines/ed/iqip/. Also, **Session 3: IQIP Database** in the **IQIP Consultant Training Packet** provides an overview of the IQIP database including the purpose, features, and applications. This training session includes an adaptable PowerPoint slide deck and training activity. The IQIP Consultant Training Packet can be found in the IQIP Library in the ISD Awardee SharePoint Portal.

Obtaining Access to the IQIP Database

Immunization program managers should submit requests for IQIP Database access on behalf of IQIP consultants to their CDC POB project officer, who initiates the following sequence of events. **Note: IQIP consultants who fail to complete Step 4 below will not gain access to the database.**

- 1. The IQIP consultant receives an automated e-mail from CDC's Secure Access Management Services (SAMS) and follows the instructions to complete the SAMS registration/verification process.
- 2. Upon completion of SAMS registration/verification, the IQIP consultant receives an e-mail from SAMS confirming that the account is activated and that the IQIP consultant may access REDCap.
- 3. The IQIP consultant visits REDCap at https://sams.cdc.gov and is instructed to enter first name, last name, and e-mail address. The IQIP consultant then receives an e-mail from REDCap with the subject, "verify your e-mail address," and clicks on the verification link.
- 4. IMPORTANT: Immediately after completing the above e-mail verification step, the IQIP consultant must send an e-mail to IQIPDatabase@cdc.gov with the subject, "REDCap verification complete."

^{*}Harris PA et al. Research electronic data capture (REDCap): a metadata-driven methodology and workflow process for providing translation al research informatics support. J Biomed Inform 2009;42(2):377-81.

If this e-mail is not sent, the IQIP consultant will not be given access to the IQIP Database. There are many REDCap projects at CDC, and many new users are given access to REDCap every day. This step is the only way to know which of the many new REDCap users are IQIP consultants seeking access to the database.

5. Upon receipt of the above e-mail, CDC IQIP staff will add the IQIP consultant as an IQIP Database user assigned to the appropriate awardee program. The IQIP consultant will receive a final e-mail (autogenerated by REDCap) confirming access.

If staff leave the IQIP program, please e-mail IQIPdatabase@cdc.gov to have their access to the IQIP Database deactivated.

Technical Support

IQIP staff with questions about the IQIP Database should first consult the *IQIP Database User Guide* and *IQIP Database Tutorial Videos* (located at https://www2.cdc.gov/vaccines/ed/iqip/), all of which are available through the ISD Awardees SharePoint portal. Any questions that remain after consulting these documents should be sent to IQIPDatabase@cdc.gov.

Important

Do not use the "Submit a REDCap Support Request" button in REDCap when seeking answers to IQIP Database questions. Requests submitted with this button are routed to the REDCap team that supports all CDC REDCap projects. This team is not familiar with the details of the IQIP program or the database and will not be able to provide assistance.



Module 4 – IQIP Core Strategies

Overview

An essential responsibility of a vaccination provider is ensuring patients receive all vaccines they need when needed. Reviewing and improving vaccination systems can increase effective vaccine delivery and patient uptake.

For Project Year 5, the IQIP core strategy **Schedule the next vaccination visit before the patient leaves the provider location** has been expanded and renamed as **Facilitate return for vaccination**.

IQIP promotes and supports implementation and ongoing improvement of four provider-level strategies designed to help increase on-time vaccination. If a provider is not implementing these strategies, participation in IQIP introduces and promotes a new approach that providers can add to their existing vaccination workflow practices. If a provider location already implements one or more of these strategies, participation in IQIP allows the opportunity to improve current implementation.

This module presents the four IQIP core strategies and provides an overview, rationale, and best-practice implementation examples for each core strategy. For more

Facilitate Return for Vaccination

Give a Strong Vaccine Recommendation

| Strengthen Vaccination | Communications | Communic

detailed information on each strategy, see the *Overview of IQIP Core Strategies* resource in the IQIP Resources Toolkit in the IQIP Library.

CDC Vaccination Initiatives That Support IQIP Core Strategies

Most parents are confident in the safety and effectiveness of vaccines. However, the spread of misinformation puts communities at risk. CDC provides strategies that communities and providers can implement to increase the public's confidence in vaccines:

Vaccinate with Confidence

Vaccinate with Confidence is CDC's strategic framework guiding the creation of investments, partnerships, and activities for strengthening public trust in the life-saving protection of vaccines. CDC uses this framework to advance three key priorities: protect communities, empower families, and stop myths by:

- partnering with immunization programs to identify and address areas of low vaccination coverage,
- expanding resources for health care professionals to support effective vaccine conversations, and
- containing the spread of misinformation and increase confidence in vaccines.

Foster Support for Vaccination in Your Practice

Providers can adopt practices to create a "culture of vaccination" to help prescribers and other staff share consistent messaging about vaccines. All best practices promoted in this initiative are part of the IQIP program, such as scheduling upcoming vaccination appointments before the patient leaves the office, reviewing each patient's vaccination status at every visit, and the use of a presumptive vaccine recommendation.

Facilitate Return for Vaccination



Strategy Overview and Rationale

This core strategy focuses on implementing clinical and clerical processes that support keeping follow-up appointments and addresses barriers to patients returning for vaccination.

Making vaccination more accessible by expanding practice hours, allowing walk-in vaccination appointments, and ensuring the next vaccination appointment is scheduled before the patient leaves the office, to name a few examples—supports parents in keeping their child on time for vaccination. Reminder and recall systems also help reduce the likelihood of missed appointments.

- A 2017 AAP clinical report asserts that making families aware of when vaccines are needed and scheduling follow-up appointments before they leave are crucial steps to increase adolescent vaccination rates.
- Studies from 2010 and 2016 of seasonal influenza vaccine uptake demonstrated the success of various scheduling default vaccination appointments that require parents to opt out instead of opting in.
- A 2018 Cochrane review of 75 studies concluded that using reminder and recall systems in primary care settings likely improve vaccination coverage across all age groups.

Best Practices for Strategy Implementation

The following list of activities serves as examples of best practices for implementing this strategy. Although not an exhaustive list, these are standards that providers should strive to meet and may be adapted to meet the providers' needs:

- Conduct routine training on current ACIP-recommended immunization schedules to inform when to schedule patients for subsequent visits.
- Maintain accurate patient contact information by verifying and updating patient contact information at each appointment to support scheduling and reminder and recall efforts.
- **Take action to prevent missed opportunities** by routinely generating lists of patients that have upcoming appointments using various technologies via EHR, IIS-based, or scheduling software platforms; screening patients for vaccination eligibility at each visit regardless of the type of visit (e.g., sick visit, well-child, sports physicals, etc.); and maintaining accurate vaccination records.
- Use effective scheduling protocol by scheduling the next appointment (e.g., well-child visit, nurse-only, etc.) before the patient leaves the office, either in the exam room or at check-out; scheduling the next vaccination visit and the next well-child visit to occur the same day whenever possible; offering various types of appointments (e.g., nurse-only appointments, vaccination-only clinic days, etc.) where vaccinations can occur.
- Inform parents of future vaccine dates by giving parents a copy of their current immunization record and a list of future recommended vaccines with precise due dates.
- Implement reminder and recall systems using multiple methods (e.g., text messages, portal messages, e-mails, postcards, phone calls, etc.) to remind patients of upcoming appointments.
- Track no-shows and canceled appointments and contact those patients within the same week to reschedule.

Leverage Immunization Information System (IIS) Functionality to **Improve Immunization Practice**



Strategy Overview and Rationale

On-time vaccination depends on tracking patient vaccination status and knowing which vaccines a patient is due for. When providers maintain patients' vaccination data in the IIS, they can use its functionality more effectively to determine appropriate patient vaccinations and self-monitor their performance.

Using an IIS can directly increase vaccination coverage for a provider's patient population by providing vaccination recommendations, provider-level coverage assessments, and reminder and recall for patients due or overdue vaccinations. During the IQIP cycle, consultants can help providers understand their role in ensuring IIS data for their patients are accurate, timely, and complete so that their assessment reports are accurate. When providers improve the quality of patient data in the IIS, the IIS will, in turn, improve the quality of its output. Reminder and recall lists, vaccine forecasts, and coverage assessments generated by the IIS will reveal valuable information in improving on-time vaccination, identifying missed opportunities, and monitoring overall performance.

Before the site visit, consultants should learn about the provider's current IIS reporting method (e.g., electronically or direct data entry) and status (e.g., reports regularly, sometimes, or rarely).

Many studies* describe the advantages IIS offer providers in their vaccination practice:

- A 2014 review of IIS-focused studies describes the wide variety of features IISs offer to improve provider workflow and vaccine uptake, such as measuring and monitoring trends over time in vaccination coverage and using this information to target areas for vaccination workflow improvement.
- Timely and complete IIS data prevent over-vaccination, as demonstrated by a 2015 study of influenza vaccination in children.
- A 2021 review of studies on patient reminder and recall—which many IISs facilitate—concluded that reminder and recall are among the most effective and cost-effective tools for childhood and adolescent vaccine delivery.

A note about EHR Data

If the provider considers their EHR data to be more timely, complete, or accurate than their IIS data, consultants may explore the following:

- The basis for the provider's perspective
- Options for synchronizing the data across both platforms
- Opportunities for IIS functionality to complement the use of the provider's EHR

Best Practices for Strategy Implementation

The following activities serve as examples of best practices for implementing this strategy. Although not an exhaustive list, these are standards that providers should strive to meet and may be adapted to meet

^{*} For additional IIS studies, visit CDC's IQIP Program's website (IQIP Strategies | CDC) for more information.

the provider's needs:

- Maintain accurate patient contact information by verifying and updating patient contact information in the IIS at each appointment to support scheduling, reminder, and recall efforts.
- **Report** all historical and administered vaccination data to the IIS routinely to support complete and up-to-date patient records.
- Assess immunization status in the IIS for patient active/inactive status and doses due at every
 patient encounter, including drop-ins and sick visits.
- **Use a prompt system** to notify staff when vaccinations are due for every patient encounter, including drop-ins and sick visits.
- **Generate patient line lists** routinely to identify patients not up-to-date and overdue to determine future due dates for vaccines.
- Assess practice performance and generate practice-level coverage reports at regularly scheduled intervals for single vaccine and combination series for various age cohorts.
- **Use reminder and recall functionality** to communicate with patients about appointments (e.g., future well-child, vaccination-only, and follow-up sick appointments).

Give a Strong Vaccine Recommendation (include HPV if the provider has adolescent patients)



Strategy Overview and Rationale

On-time vaccination depends on parents choosing to vaccinate their children, and providers play a critical role in leading parents to that decision. Parents usually consider their child's healthcare professionals one of the most trusted vaccine information sources. This strategy focuses on the prescriber's interaction with the patient and parent, how the provider introduces the topic of vaccination, presents vaccination recommendations to parents, and addresses their concerns.

Several studies have linked making a strong vaccination recommendation to increased vaccine confidence and acceptance, thus increasing vaccination rates:

- Parents in a 2013 <u>study</u> were less likely to have concerns about vaccinating their child if they
 received vaccination information from their child's doctor than if they received vaccination information from other sources.
- Results from a 2016 <u>national survey</u> of parents and adolescents showed that high-quality provider recommendations were positively associated with HPV vaccine uptake and negatively associated with refusal and delay.
- A 2011 <u>study</u> on low HPV vaccination rates found poor provider recommendations contributed to under-vaccination. Providers trained to use the presumptive announcement approach for HPV vaccination saw more significant increases in HPV vaccination coverage among their patients relative to coverage among control clinics in a 2017 <u>randomized clinical trial</u>.

Best Practices for Strategy Implementation

This strategy focuses on helping the provider adopt or improve upon making a strong vaccine

recommendation to help parents decide to vaccinate. Implementation of this strategy supports awardees, providers, and their staff in addressing gaps in coverage that may exist due to low vaccine confidence. The following list details examples of best practices for implementing this strategy. Although not an exhaustive list, these are standards that providers should strive to meet and may be adapted to meet the provider's needs:

- Use effective communication approaches (e.g., presumptive language, bundling approach, sandwiching recommendations, etc.) when recommending vaccines.
- **Prevent missed opportunities** by recommending vaccines when they are due and recommending multiple vaccines simultaneously if the ACIP schedule indicates the patient is due for more than one vaccine at the time of the visit.
- **Listen to parents** and seek to understand the concerns behind parents' questions before responding. Willingness to listen and acknowledge parents' concerns plays a role in building trust.
- Reduce disparities / promote vaccine equity by training prescribers to recognize the diversity within their community and acknowledge the systemic, cultural, and historical reasons some patients may have low confidence in vaccines.
- Receive routine training to prepare for and focus on the vaccination discussion with parents on the current <u>ACIP Recommended Routine and Catch-Up Immunization Schedules</u>.

Strengthen Vaccination Communications



Strategy Overview and Rationale

The spread of vaccine mis/disinformation puts patients at risk for vaccine-preventable diseases. Confidence and trust in vaccines are built through conversations between parents, doctors, nurses, pharmacists, and community members. Patients and parents can feel more confident about vaccinating when everyone in the practice shares the same message. Everyone is essential in supporting vaccination, from the front desk to the exam room to checkout. Strengthening vaccine communications helps providers to:

- Increase positive vaccination messaging throughout their practice
- Provide accurate, easily accessible information on vaccines
- Engage in effective vaccine conversations with parents

The strategy includes developing, updating, and disseminating the provider location's patient vaccination policy. It also includes other approaches to vaccination messaging, such as displaying flyers and posters in the waiting room and examination rooms and providing vaccination-related content in emails, mailings, website content, and social media posts.

The messengers and messages used to convey accurate information about vaccines are essential to combating mis/disinformation and improving vaccine confidence. Prioritizing clear, positive messaging about vaccination by all clinic staff creates an environment where patients and parents can have their concerns addressed and feel affirmed in their decision to vaccinate their child. This strategy covers internal communications (e.g., staff meetings, training to refine clinic workflows, etc.) and external communications (e.g., public-facing messaging like websites, newsletters, etc.).

Studies have linked providers' vaccination communications to vaccination acceptance and confidence:

- This <u>continuing education module</u> demonstrates how positive vaccine communication from nurses and medical assistants can support vaccine acceptance.
- A 2017 <u>study</u> found increased on-time vaccination among infants whose parents were provided with web-based content about vaccines, including social media options while pregnant.

Best Practices for Strategy Implementation

The following list of activities serves as examples of best practices for implementing this strategy. Although not an exhaustive list, these are standards that providers should strive to meet and may be adapted to meet the provider's needs:

- Promote the provider's patient vaccination policy by sharing practice-wide vaccination policy
 with all new and existing patients and including the policy in new patient packets, displaying it in
 waiting areas and exam rooms.
- **Promote patient and parent education** by including vaccine-related promotional material (e.g., patient vaccination policy, ACIP immunization schedule, educational one-pagers, etc.) in welcome packets for new patients and accessible locations throughout the practice.
- Update and train staff by incorporating routine and current vaccine-related content (e.g., the
 ACIP schedule, increasing vaccine confidence, how to address common questions or mis/disinformation about vaccines, etc.) in training curricula and promoting CMEs, MOCs, and other continuing education that focuses on vaccine education.
- **Promote vaccination on the practice's website and social media** by incorporating vaccine-related content and have protocols to ensure the content is routinely updated.
- Reduce disparities / promote vaccine equity by ensuring patient materials in languages spoken
 within the provider's community are available. Also, providing that images used in communications include the diversity of the population served and promote positive health behaviors. See
 Health Equity Guiding Principles for Inclusive Communication | Gateway to Health Communication | CDC for resources on promoting health equity.

Overlapping of IQIP Core Strategies

Implementation of the four IQIP core strategies can sometimes intersect and overlap. IQIP consultants should be aware of the possibility of overlapping strategies and be comfortable with explaining to providers how activities developed for implementing one core strategy can complement or even amplify those set for implementing another core strategy.

Please see <u>Table: Examples of Core Strategy Overlap</u> for examples of strategy implementation overlapping.

Table: Examples of Core Strategy Overlap			
Conduct routine training on current ACIP-recommended immunization schedules.	Facilitate Return for Vaccination Give a Strong Vaccine Recommendation Strengthen Vaccination Communications		
Maintain accurate patient contact information to support scheduling and reminder and recall efforts.	Facilitate Return for Vaccination Leverage IIS Functionality to Improve Immunization Practice		
Implement reminder and recall systems using multiple methods (e.g., text messages, portal messages, e-mails, postcards, phone calls, etc.)	Facilitate Return for Vaccination Leverage IIS Functionality to Improve Immunization Practice		
Reduce disparities/promote vaccine equity by recognizing the diversity within the patient population being served and acknowledging the systemic, cultural, and historical reasons some patients may have low confidence in vaccines.	Give a Strong Vaccine Recommendation Strengthen Vaccination Communications		

Available Resources to Support IQIP Core Strategy Implementation

Additional resources for IQIP program coordinators and consultants are available in the IQIP Resources Toolkit located in the IQIP Library. Follow the path below to find CDC-developed and partner resources for each strategy:

IQIP Library > Program Management > IQIP Resources Toolkit

Once in the IQIP Resources Toolkit, there are subfolders for each core strategy. There is also a standalone Excel file called the *IQIP Resources Index*. This index contains resources for each one of the core strategies. Index users should consult the "About This Index" tab for navigation guidance.

Module 5 - Pre-Site Visit

Overview

The IQIP site visit has several components, including reviewing the provider's vaccination workflow, sharing and discussing the provider's initial assessment reports, and collaborating with the provider to review and select quality improvement strategies. To complete all components successfully, consultants must invest time into preparing for the site visit. Efficient planning will result in a smooth, coordinated site visit that allows the provider staff to be fully engaged for its duration.

Awardees will find CDC's site visit preparation checklist for consultants in the IQIP Preparations Checklist

resource located in the IQIP Resources Toolkit in the IQIP Library. Awardees may develop additional tools to assist with consultant preparation.

Consultants should confirm that each provider location is in the IQIP Database prior to the site visit to support timely entry of data and notes.

CDC recommends conducting IQIP site visits independently from VFC compliance visits. When awardees must perform combined visits, it is imperative enough time be allotted

When preparing for an IQIP site visit, consultants should consider:

- How and when to initiate contact with the provider location staff.
- What content to include in the communication sent to the provider staff prior to the visit.
- Which assessment reports should be run prior to the visit.
- What additional provider location information is needed prior to the visit (e.g., previous visits, VFC status/issues, etc.).
- What materials and resources to have at the visit.
- What materials to leave with the provider staff after the visit is completed.

to fully observe provider workflow and engage appropriate staff in discussion of QI strategy implementation. Because it may be difficult to shift from a compliance-focused dialogue to one with a collaborative emphasis, awardees should perform the IQIP visit prior to the VFC compliance visit because it may be difficult to shift from a compliance-focused dialogue to one with a collaborative emphasis.

Arranging a Site Visit

Scheduling procedures should include the following:

- Determine if the site visit will be in-person or tele-IQIP (see the *Tips for Conducting Tele-IQIP* resource located in the IQIP Library).
- Identify a contact person at the provider location to discuss logistics (physical space, virtual platform, staff in attendance, etc.). Confirm their job title, e-mail address, and phone number.
 Remember that the appropriate contact for IQIP may not be the VFC primary or back-up coordinator. Confirm that the contact person is knowledgeable and is able to discuss vaccination workflow and can support quality improvement strategy implementation at the provider location.
- Explain the purpose and goals of participation in IQIP. This is an appropriate time to determine if
 the provider location is actively engaged in immunization QI projects and are available to participate in an IQIP cycle. If the provider is unable to participate in IQIP, the consultant should notify
 the IQIP coordinator to determine if the QI program should be submitted to CDC for alternate QI
 program credit for the provider location (see Module 10 Alternate QI Program Credit).
- Discuss with the contact person the estimated amount of time needed for the site visit. Site visits typically take one to two hours to complete.

- Discuss with the contact person the importance of participation by physicians and other vaccine prescribers, along with immunization champion (see *The Role of the Immunization Champion* resource located in the IQIP Resources Toolkit in the IQIP Library), QI coordinator, nursing, and office management staff being present during the site visit. This is important because any changes to workflow, policies, or procedures will require their buy-in and approval. If conducting a combination VFC/IQIP visit, participation is needed from more than the VFC coordinator alone.
- Confirm provider location information (e.g., address, safety protocols or entry requirements, etc.).
- Confirm if site has a written vaccination policy/philosophy for patients and ask them to provide a
 copy prior to the visit, if possible (see *Tips for Reviewing Vaccination Policies* resource located in
 the IQIP Resources Toolkit in the IQIP Library).
- Confirm the cohorts (i.e., child and/or adolescent) served by the provider.
- Outline any consultant on-site needs (e.g., meeting space, workstation, or power source).
- Send a confirmation letter or e-mail (see *IQIP Site Visit Confirmation Letter* template located in the IQIP Resources Toolkit in the IQIP Library) to the contact person that includes:
 - o Date and time of site visit
 - o The benefits of implementing immunization QI at the provider level
 - o What to expect during the site visit, check-ins, and 12-month follow-up. Consider including the *IQIP At-A-Glance for Providers* resource located in the IQIP Resources Toolkit and the IQIP Database File Repository.
 - o IQIP consultant contact information
- Confirm the site visit two to three working days before the scheduled appointment.

Preparing for the Site Visit

Effective planning for the site visit is critical to ensure the consultant has all the information and resources needed to conduct the site visit. Consultants should consider the information needed to optimize their time at the provider location. Types of helpful information include:

- General knowledge about the patient population served by the provider (e.g., race/ethnicity, socioeconomic status, health equity factors, insurance status, English proficiency, languages spoken, rural or urban setting)
- Additional vaccination services in the community (e.g., vaccination provider locations in areas with few vaccination providers)
- Cohorts (i.e., child, adolescent, and/or older teens) served by the provider location
- Staffing information, including an immunization champion, a lead physician, and additional staff with decision-making authority
- Any vaccine-related content (e.g., vaccination policy, links to trusted vaccination resources, etc.)
 on the provider's communication platforms (e.g., websites, social media, etc.)
- Data and information from previous quality improvement visits
- IIS reporting method (e.g., bi-directional query, HL7, direct data entry, batch transfers, etc.)
- IIS reporting status (e.g., potential data quality issues, frequency of submitting data, generating recall or reminder messages, vaccine inventory, etc.)
- Assessment reports (if generated prior to the site visit, see <u>Module 2 Assessment Report Generation</u>)

Consultants should also prepare and collect any materials and resources that may support discussions with the provider. These types of materials include:

- Tools for documenting site visit information (laptop/tablet with internet access or electronic or hard copy of the *IQIP Site Visit Form*)
- Awardee-specific IQIP Operations Guide and other awardee-developed materials
- Items from the IQIP Consultant Toolkit (including, but not limited to, material related to QI strategies, samples of parent-focused educational material, provider-focused training material), which are in the IQIP Library
- Assessment reports (if generated prior to the site visit, see <u>Module 2 Assessment Reports</u>)

Module 6 - Site Visit

Overview

Provider vaccination processes and messaging are vital to ensuring vaccination of their patients. Through the observation, discussion, and collaboration that occur during an IQIP consultant's visit to a provider location, a provider can identify areas for improvement in their policies and/or procedures and begin the steps to increasing vaccination coverage among their patients. Site visits also present critical opportunities to engage providers and develop and strengthen ongoing relationships.

During the IQIP site visit, the consultant and provider staff identify opportunities to improve the provider's performance in vaccination delivery. This is accomplished through a vaccination workflow assessment that includes organizational support of vaccination, discussion of patient-facing vaccination workflow and a review of assessment reports (e.g., initial vaccination coverage data and patient line lists). The consultant and provider staff then collaborate to set 12-month coverage goals and to select appropriate QI strategies to reach those goals. The consultant also provides technical assistance during the site visit to support the implementation of the QI strategies selected. The site visit should proceed in the following order (see Appendix F: IQIP Site Visit Process Diagram):

- 1. Initiate site visit with introductions, purpose of the visit, and overview of the IQIP process.
- 2. Begin workflow assessment in relation to the IQIP strategies with the first workflow point, practice management. This discussion should include:
 - Role of the immunization champion
 - Status of a vaccination policy for patients
 - Communication, education, and training practices
- 3. Review and assess provider vaccination workflow points in relation to the IQIP strategies.
- 4. Review assessment reports to identify opportunities for improvement.
- 5. Discuss and select IQIP strategies.
- 6. Develop action items, which will combine to form the strategy implementation plan.
- 7. Provide technical assistance as needed.
- 8. Wrap up by discussing next steps and establishing check-in and follow-up dates.

If the appropriate staff is not in attendance, establish how the absent staff will be informed of discussions and action items.

Tele-IQIP Guidance

Tele-IQIP provides awardees the option to conduct IQIP site visits virtually. The required criteria for tele-IQIP include:

- IQIP consultants must use a virtual platform and computer with functionality for both screensharing (to ensure effective presentation of documents and demonstration of software) and video conferencing (to increase engagement and allow for visual cues).
 - o The virtual platform should provide the capability to be used continuously for the duration of the site visit.
 - o The virtual platform must be HIPAA-compliant to provide patient privacy protection.
 - o Consultants must have proficiency and confidence in using the awardee's chosen video conferencing application. Until proficiency and confidence are achieved and the consultant can demonstrate use with ease, they should conduct in-person IQIP site visits only.

- The visit must adhere to existing IQIP guidance for site visit and documentation, which includes participation by prescribers and other decision-makers when possible.
- The visit must include a verbal or video walkthrough of the provider's workflow for patients receiving immunization services.

Note-Taking and Data Collection during the Site Visit



Requirement: Documentation of the site visit in the IQIP Database is required within 10 business days after the site visit.

The IQIP consultant should make the site visit as engaging and interactive as possible, while at the same time recording the notes and data necessary to (a) provide meaningful technical assistance and monitoring during the upcoming 2-month check-in and (b) record visit information accurately in the IQIP Database. CDC encourages the IQIP consultant to take notes and collect data using the method that is most comfortable and least distracting during the visit. Available options include:

- Enter notes and data directly into the IQIP Database. This is the most efficient option from a data entry perspective when internet connectivity is available at the provider location.
- Print a blank copy or have access to an electronic copy of the CDC **IQIP Site Visit Form**. This form is available for download in the IQIP Database's File Repository and in the IQIP Resources Toolkit.
- Print a blank copy or have access to an electronic copy of an awardee-developed IQIP site visit form. Note: An awardee-designed form is not required but may be created to provide additional guidance for the IQIP consultant not included on the CDC form. Any awardee-designed form must include all CDC-required documentation elements.

Initiate the Site Visit

It is important to familiarize both the consultant and provider participants with the names and roles of those in attendance, what to expect during the site visit, and remaining steps of the IQIP cycle. Initiating the site visit should include:

- **Introductions** The consultant introduces themselves and asks those in attendance to state their name and their role in the office with respect to vaccination.
- **Purpose of the Site Visit** The consultant explains the purpose of the site visit as a first step in a 12-month collaborative QI project where participating staff:
 - o Share information about their support of vaccination within the vaccination workflow;
 - o Identify opportunities for improvement;
 - o Select strategies to address those opportunities;
 - o Create action items to assist with strategy implementation; and
 - o Receive guidance and support from the consultant.
- Overview of the IQIP cycle The consultant explains the IQIP process, including a description of what will happen during the site visit (workflow assessment, assessment reports review, strategy selection, action item and implementation plan development), the subsequent 2- and 6-month check-in calls, and the 12-month follow-up.

Vaccination Workflow

The vaccination workflow is the sequence of clerical and clinical processes followed by the provider to assess, recommend, order, administer and document all eligible vaccinations, and to schedule future

vaccination appointments. An assessment of a provider location's vaccination workflow for process improvement is the primary purpose of an IQIP site visit and creates the foundation for the 12-month IQIP cycle. Vaccination workflow gaps or inconsistently followed processes can lead to missed opportunities, lower vaccination coverage, and reduced community protection against vaccine-preventable diseases. If a provider adjusts vaccination workflow to close gaps and staff successfully implement those changes, then hopefully more patients will understand the importance of vaccination, have their vaccination status assessed, receive all eligible vaccinations, and know when and where to receive the next vaccines due.

Vaccination Workflow Points

There are six key encounters, or workflow points, when vaccination-related activities can take place. These points and are discussed during the review of the IQIP vaccination workflow assessment:

- 1. **Practice Management** Management staff oversee the business affairs of the provider office, including but not limited to policies and procedures, job descriptions, supervision, hiring, communications, education, and training.
- 2. **Patient Documentation Preparation** Provider staff collect and organize patient documentation for upcoming appointments, including vaccination history and identifying vaccines due.
- 3. **Patient Check-In** Provider staff greet the parent and/or patient when they arrive for their appointment. Patients are asked to fill out any forms needed for the day's services.
- 4. **Prescriber Discussion and Exam** The vaccination prescriber (e.g., physician, nurse practitioner, etc.) discusses all eligible vaccines due at this visit, makes a strong vaccine recommendation to the patient, answers any questions, and places the order for vaccine administration.
- 5. **Vaccination** Clinical staff administers the prescribed vaccines and documents them in patient's the medical record.
- Patient Check-Out Provider staff assist the parent and/or patient before they leave the office
 by scheduling return appointments and providing paper copy of immunization record or appointment cards.



Figure 1 depicts a sample provider office layout, the provider office locations where staff perform vaccination-related activities, their corresponding IQIP vaccination workflow points, and icons representing where relevant IQIP strategies can be implemented.

Vaccination Workflow Assessment



Requirement: Awardees must assess the provider's vaccination workflow prior to discussing coverage assessment data.

The vaccination workflow assessment is the process of gathering information about the provider's vaccination workflow and identifying the current level of strategy implementation and opportunities for improvement. A consultant assesses the provider's vaccination workflow by leading a discussion with the provider staff about vaccination-related activities as currently performed at each of the six vaccination workflow points. As the provider describes the workflow, the consultant listens closely, comparing the provider's activities at each workflow point with the four core IQIP strategies and associated best practices. Core strategy best practices currently followed by the provider comprise the provider's current implementation status, and those not currently followed represent gaps, or opportunities for improvement.

The current strategy implementation status and gaps in combination with the information from provider's assessment reports are used to assist with strategy selection, developing action items, and forming those into the overall strategy implementation plan. Because workflow assessment findings drive IQIP strategy selection and action items, any discussion of vaccination coverage must occur only after the workflow assessment is completed.

Leading the Workflow Assessment Discussion

As the provider describes their vaccination processes, the IQIP consultant asks questions to clarify the who, where, when, and how, and take notes. To invite open discussion and information sharing, the consultant asks questions in a way that encourages the responder to engage in deeper thought and provide additional detail (i.e., using open-ended questions) rather than questions that need only a "yes" or "no" answer (i.e., using close-ended questions). Asking open-ended questions during discussions with provider

USE	DO NOT USE	
Open-Ended Questions	Close-Ended Questions	
 Begin with "What," "How," "In what way," "Tell me," or "Describe" Are relevant to the discussion Are not leading or implying a personal view Are asked in a neutral tone of voice Provide detailed information 	 Provide only one-word and limited response (i.e., "yes" or "no") Provide you with limited information Can be irrelevant or imply that the questioner holds a negative opinion Prompts or encourages the desired answer 	
Examples	Examples	
"Can you describe what you do to get ready for the next day's patient appointments?" "How do you determine when the patient's next vaccination is due?" "What do you do if a patient misses their ap- pointment?"	"Does your front desk staff run patient lists for the next day's appointments?" "You consult the ACIP schedule for the patient's next vaccination, right?" "Do you call patients who missed their appoint- ments that same day?"	

staff also creates a receptive, open tone and invites them to talk more in detail about their perspective.

To provide guidance and support during the vaccination workflow assessment and help consultants ensure all relevant processes at each workflow point are discussed, the CDC IQIP program provides a vaccination workflow assessment tool (see <u>Appendix G: Vaccination Workflow Assessment Tool</u>), located in the IQIP Resources Toolkit in the IQIP Library and in the File Repository of the IQIP Database. This tool provides a page for each of the workflow points with their relevant IQIP strategies, workflow topics, open-ended discussion questions, and space for notes. Awardees are not required to use this specific tool and may modify it to meet their needs or create their own.

First Workflow Point: Practice Management

Although they are not a part of the vaccination workflow that a patient experiences during their visit, many policies and procedures established by practice management impact staff and patient interactions and also form the foundation of a provider's overall support for vaccination at an organizational level. To assess the provider's operational level of support for vaccination, the IQIP consultant assesses the status of the provider's immunization champion role, vaccination policy for patients, and communications, education, and training practices. Because practice management's administrative activities have room to improve just as clerical and clinical vaccination workflow do, the consultant looks for opportunities for improvement in these areas as they would when discussing any other workflow point.

IQIP Core Strategies			
Facilitate Return for Vaccination	Leverage IIS Functionality to Improve Immunization Practice		
	⟨··⟩		
Give a Strong Vaccine Recommendation	Strengthen Vaccination Communications		
	((w))		

Practice management can be assigned action items to improve overall operational support for vaccination as part of any of the four IQIP core strategies. As the provider describes the status of their immunization champion, vaccination policy, and communication, education, and training activities, the consultant listens for opportunities for practice management to improve their support of vaccination in these areas, noting specific aspects to explore in more detail when selecting strategies later in the visit.

Role of the Immunization Champion

The immunization champion is a provider staff person who takes the lead in promoting vaccination activities at the provider location. The immunization champion has different responsibilities than those of the VFC primary and VFC back-up. Some provider locations and health care systems may designate a QI coordinator, a role that many may think is the same as an immunization champion. However, the activities performed for each of the two roles are different. An immunization champion focuses primarily on vaccination activities, whereas a QI coordinator covers a broader range of performance areas, such as those related to developmental screening or calibration of equipment.

Practice management can increase support for vaccination by appointing someone to serve in the role of immunization champion if they have not done so already. A provider may not be aware of all activities the role could involve.

There are two opportunities at which the IQIP consultant can discuss the immunization champion role with the provider. The first opportunity is while scheduling the site visit. The consultant requests participation of the provider's immunization champion and QI coordinator if they have staff

members serving in one or both roles. If these roles are filled, the IQIP consultant requests they be present during the site visit and collaborate with them throughout the IQIP cycle to monitor and assure completion of the action items planned during the site visit. If no staff has assumed the role of the immunization champion, proceed with scheduling the visit and be prepared to discuss the benefits of having a staff person serve in this role, see Module 5 – Pre-Site Visit Activities.

The consultant's second opportunity to discuss the immunization champion is when discussing the practice management workflow point. The consultant begins the discussion about the immunization champion based on the information gathered during scheduling, using the discussion prompts in the workflow assessment tool if needed. If the provider has a staff person in this role, the consultant asks what their role entails, then provides additional examples of other ways they can support vaccination in the practice, such as those listed above. If the provider does not have a staff person in this role, the consultant discusses the benefits of having someone in this role and encourages the provider to assign this responsibility to a staff member as an action item under any applicable IQIP core strategy.

Assuming the role of immunization champion may entail taking on additional tasks. Practice management often develops and manages job descriptions and may need to update the duties of whoever is designated as the immunization champion.

For more examples of ways an immunization champion can promote vaccination in the clinic, see *The Role of the Immunization Champion* resource in the IQIP Resources Toolkit in the IQIP Library and in the IQIP Database's File Repository.

Vaccination Policy for Patients

The CDC IQIP Program recommends that all vaccination providers have a vaccination policy for patients in their practice. Having a vaccination policy in place and making parents aware of that policy boosts the credibility and strength of vaccination messaging present throughout the office either in patient education materials or discussions about vaccination with the patient and family. It also communicates the importance the provider places on childhood vaccination and its routine inclusion with other health care services. Developing and maintaining organizational policies such as this are typically handled by the provider's management staff.

As with assessing the status of the immunization champion, there are two opportunities at which the IQIP consultant can assess the status of a vaccination policy. The first opportunity is when the consultant is scheduling the site visit. During the scheduling conversation, the consultant asks the provider if they have a vaccination policy for patients, congratulating the provider for having written policy in place if they have one already. The consultant asks to see the policy, and reviews it prior to the visit, noting any options that would strengthen the policy. This step enables the consultant to gauge the provider's position on vaccination, scan the policy for statements that clearly communicate dedicated support of vaccination, and formulate any recommendations for improvement.

The consultant's second opportunity to discuss the status of a vaccination policy is during the site visit, after discussing the role of the immunization champion. The consultant begins the discussion about the vaccination policy based on the information gathered during scheduling. If the provider does have a policy, the consultant thanks the provider for sharing it in advance and then presents any recom-

mendations for improvement of the policy. If the provider does have a policy and provides a copy during the site visit, the consultant informs the provider that they will review the policy after the site visit and share any recommendations for improvement along with their follow-up email. If the provider does not have a vaccination policy for patients, the consultant is prepared to discuss the benefits of having such a policy and has sample policies ready to leave with the provider during the site visit. The consultant recommends development of a policy as an action item as part of the Strengthen Vaccination Communications strategy during the strategy selection process.

For further detail and reviewing guidance, see *Tips for Reviewing Vaccination Policies* in the IQIP Resources Toolkit located in the IQIP Library.

Vaccination Communications, Education and Training

Patients and parents can feel more confident about vaccinating when all provider location staff share the same message. Practice management has a key role in ultimately increasing patients's and parents' vaccine confidence through the practice culture and the employment of staff who are confident in their own vaccine messaging. Practice management can facilitate the creation and posting of vaccine-positive website and other media content, coordinate continuing education for clinical staff, and provide training for staff on positive vaccine messaging techniques.

The IQIP consultant partially assesses status of the provider's vaccination communications prior to the site visit by reviewing the provider's website if available. As with reviewing the provider's vaccination policy, this step enables the consultant to gauge the provider's position on vaccination, the level of attention they provide to the vaccination content on their website, and formulate any recommendations for improvement.

The consultant completes their assessment of the status of the provider's vaccination communication practices during the site visit, prior to the vaccination workflow assessment. The consultant begins by asking about any other patient-facing communications on vaccination, such as newsletters, blogs, or social media posts, and how often they are prepared. The consultant also asks about any vaccination-related education and training for clinical and/or clerical staff, the subjects those trainings cover, and how often they are provided. Based on provider responses, the consultant suggests ways practice management can expand communication, education, and training activities to become a more vocal supporter of vaccination.

Second Workflow Point: Patient Documentation Preparation

The first step in ensuring that patients receive the vaccines they need, when they need them, is to ensure the provider has each patient's complete vaccination history and reliable contact information. During discussion of the patient documentation preparation workflow point, the IQIP consultant develops a clear and complete understanding of how staff prepares each patient's vaccination and contact information for the patient's upcoming visit. The consultant's assessment identifies any gaps that may lead to incomplete immunization records, outdated patient contact information, or inaccurate active/inactive IIS status.

To ensure that a patient receives all needed vaccines during their visit, the provider must know all the vaccines the patient has already received and when they received them. Incomplete vaccination records can lead to incorrect recommendations, repeated doses (i.e., over-vaccination) and missed opportunities.

To have a complete vaccination record, staff may have to consult multiple sources (e.g., the IIS, provider's EHR, patient's previous provider, etc.) and combine them into a single record in the IIS for evaluation and forecasting purposes. The IIS-based forecasted vaccinations are passed on to the provider to consult during their time with the patient.

To ensure that patients receive appointment reminders and can be contacted for missed appointments or overdue vaccinations, the provider must have current, reliable contact information. To keep contact information updated, staff may need to reconcile conflicting contact information from multiple sources (e.g., the IIS, provider EHR, returned mail or e-mail). In addition, if they learn that a patient has moved out of the jurisdiction or are no longer under the provider's care, staff should also update the patient's status in the IIS so that assessment reports remain accurate.

For related strategies and discussion prompts, see Appendix G: Vaccination Workflow Assessment Tool.

Third Workflow Point: Patient Check-In

Because they are the first point of interaction after entering a provider office, front desk staff plays a crucial role in making patients feel welcome and supported during their visit. Front desk staff also plays a key role in ensuring the visit and any subsequent vaccination follow-up tasks proceed smoothly by assuring patient records are accurate and complete. When discussing this workflow point, the consultant develops a clear and complete understanding of the provider's routine check-in processes for both scheduled and unscheduled appointments and their impact on the quality of patient information, vaccine recommendations, and patient/family confidence in vaccines. The consultant's assessment identifies any missing processes that may lead to inaccurate vaccination records or recommendations, returned vaccination recall notices, or doubts about vaccination.

The check-in process provides another opportunity to verify or update any patient information, which will make sure the patient receives reminders or can be rescheduled if they miss a future appointment. In cases when a new patient arrives for their appointment, front office staff can also collect any vaccination records brought by the patient or parent and add them to the patient's record. To assure any needed vaccines are recommended during their visit, staff may consult the IIS for any other vaccinations the patient may have received, update the IIS record with any missing information from the patient's record presented during check-in, and use the IIS's forecasting function to specify what vaccines the patient may need.

The check-in process also provides an opportunity to promote vaccination. If a provider has a written vaccination policy, front desk staff can provide copies in the waiting room or include it in any welcome packets given to patients or parents new to the practice, along with other vaccination information such as the ACIP schedule or a list of reliable information sources.

Patients and parents are likely to have questions, even if they already plan to vaccinate. The extent to which front desk staff may be trained to respond to these kinds of questions will depend upon the provider. Some providers may prefer that the front desk staff refrain from responding to vaccination-related questions, but others may want the font staff to participate in answering questions and delivering vaccine-positive messaging. In either case, the front desk staff should be trained and prepared to consistently provide whatever level of support the provider wishes.

For related strategies and discussion prompts, see Appendix G: Vaccination Workflow Assessment Tool.

Fourth Workflow Point: Prescriber Discussion and Exam

The prescriber/parent discussion is the key opportunity to deliver crucial messages to parents about vaccines and support their vaccination decision. When discussing this workflow point, the consultant develops a clear and complete understanding of how the prescriber makes their vaccination recommendation, how they respond to any parent questions or concerns, and whether the prescriber's current approach may lead to confusion, indecision, postponement, or refusal of vaccines. The consultant's assessment identifies any vaccination recommendation methods the prescriber can adopt to strengthen their approach and improve their responsiveness to parent questions or concerns.

Many prescribers believe they already give a strong recommendation but use tentative or indirect language. The best way for an IQIP consultant to assess the strength of a prescriber's vaccination recommendation is to ask them to demonstrate how they give their recommendation using role play. The consultant plays the role of a parent lacking vaccine confidence with concerns about safety or has received misinformation. If the provider sees adolescent patients, the consultant also asks how the provider delivers their HPV recommendation. Based on this role play, the consultant assesses whether the provider uses an effective recommendation method or could improve their recommendation further by adopting a presumptive approach, stronger language, or bundling their recommendation.

If a parent remains doubtful, the way the provider responds to their concerns can have a strong influence on their vaccination decision. Providers should be open and receptive to questions, make an effort to understand what the parent's concerns are, and respond compassionately and sincerely to those concerns in a culturally appropriate manner. If desired, the provider can recommend vaccines from their position as both a medical professional and a parent.

For related strategies and discussion prompts, see Appendix G: Vaccination Workflow Assessment Tool.

Fifth Workflow Point: Vaccination

In addition to administering the recommended vaccination(s) to the patient, the vaccination stage of the workflow provides opportunities to leverage the remaining time with the patient to create a future commitment to vaccinate. When discussing this workflow point, the IQIP consultant develops a complete understanding of how future vaccinations are discussed and planned. The consultant's assessment identifies any opportunities to ensure the patient returns to receive their next vaccination according to the ACIP schedule.

Infants and children are likely to experience discomfort upon vaccine administration and need soothing from their parent. It can be challenging to engage fully with a parent about future vaccinations when their attention is divided. Discussing and scheduling the next vaccination appointment prior to vaccine administration will help ensure the parent can give their full attention and ensure that they have agreed to return for the next vaccination on a specific date and time. Having clear on-or-after dates for future vaccinations, explaining the importance of following the ACIP schedule, and providing multiple appointment types for parents to choose from will help facilitate their return and keep their child on track.

For related strategies and discussion prompts, see Appendix G: Vaccination Workflow Assessment Tool.

Sixth Workflow Point: Patient Check-Out

Patient check-out is the final workflow step and the last opportunity for provider staff to interact with parents and patients in- person before they leave the office. When discussing this workflow point, IQIP consultants develop a complete understanding of how the provider ensures the patient has a date and time at which they will return for future vaccinations, understands the importance of keeping that appointment, and can receive future communications. The consultant's assessment identifies any opportunities for ensuring the patient's return to receive their next vaccination according to the ACIP schedule and their receipt of any reminders or other provider communications.

If the next appointment was not scheduled at vaccination, this crucial task is done at patient check-out, as well as setup of any appointment reminders and other communications. To support on-time vaccination, appointment schedulers must receive accurate on-or-after dates and understand the importance of not administering the next vaccine too early. Check-out staff can also provide a custom list of forecasted vaccines generated from the IIS so the parent understands when future vaccines will be needed. To facilitate ease of patient return, providers may suggest scheduling the next vaccine appointment on the same day as the next well-child visit, or offer a variety of appointment types (e.g., nurse-only, expanded hours, etc.). Offering and setting up appointment reminders can also be done at this stage, as well as verification of contact information and preferences so those reminders will be received. If available, check-out staff can promote practice websites, patient portals, or other web-based communication platforms available to help parents and patients stay in touch, access reliable vaccination information, or obtain copies of their vaccination records.

For related strategies and discussion prompts, see Appendix G: Vaccination Workflow Assessment Tool.

Reviewing Assessment Data with Providers

Discussion of assessment data follows review of the provider's vaccination workflow. The benefits of and specifications for assessment reports (i.e., coverage and patient line lists) are described in <u>Module 2 – Assessment Report Generation</u>. The review of assessment reports during the site visit is intended to help identify opportunities for improvement in processes and workflow.

Vaccination Coverage

Initial coverage data for series and for individual vaccines provide a baseline indicator of the provider's on-time vaccination performance. Nearly all providers have room to increase aggregate vaccination coverage for their practice. Baseline coverage for some doses may be lower than others. Recognition and discussion of vaccination performance gaps during the site visit can help the IQIP consultant and provider staff tailor action items and technical assistance to areas of greatest need. Consultants should review coverage for all assessed vaccines with provider staff (e.g., coverage for the 4:3:1:UTD:UTD:1:UTD series should be reviewed as well as the coverage of each vaccine in that series). In cases where data are not available to generate assessment reports, the provider's current level of strategy implementation can guide these activities.

Patient Line Lists

Patient line lists demonstrate potential lapses in vaccination performance and can be examined at the level of the individual patient or patient visit. For example, if provider staff maintains they rarely miss opportunities to vaccinate patients, the IQIP consultant can review the dose history of individual

patients on the "missed opportunity" patient line list and offer customized technical assistance to the provider aimed at reducing the types of missed opportunities that have occurred.

For most awardees, patient line lists should be used as demonstrations and teaching opportunities. As an intervention measure, some awardees generate patient line lists and encourage providers to schedule vaccination appointments for all patients on those lists. However, CDC does not recommend this approach unless the practice can be sustained by provider staff being able to generate patient line lists on their own at regularly scheduled intervals. Action items may be incorporated into the strategy implementation plan to help build this capacity. For further examples of patient line lists and their respective technical guidance, refer to AFIX-IIS Integration Operations and Technical Guidance for Implementing IIS-Based Coverage Assessment — Phase II.

Setting 12-Month Coverage Goals

After reviewing coverage, the consultant and provider staff collaborate to set ambitious but attainable coverage goals to work toward during the 12-month IQIP cycle. If coverage is calculated in advance of the site visit, the consultant may preselect suggested coverage goals to discuss with the provider staff during the visit before making them final.

A good coverage goal is one that is possible to reach but not met too easily. Reaching a coverage goal should not be guaranteed unless the provider staff devotes itself to making it happen. It may be better to pick a goal that is almost reached than to pick one that is too easy to reach. The patient population size also plays a role in coverage goal selection. For example, if a provider has 10 patients in a cohort and has vaccination coverage of 50%, then a 10-percentage-point increase would only equate to the vaccination of one additional patient. For this hypothetical provider with few patients, a coverage goal increase of 30 or 40 percentage points might be more appropriate. For larger providers, a 30- or 40-percentage point increase would often be unrealistic.

Childhood Coverage Goals

The IQIP Database autogenerates and prepopulates a suggested 12-month coverage goal for the 4:3:1:UTD:UTD:1:UTD childhood series (see <u>Table: Logic for suggested 12-month childhood coverage goals</u>). The consultant and provider staff may edit this value if a different goal is preferred. Coverage goals for individual childhood doses (e.g., 4 DTaP, 3 IPV, 1 MMR, etc.) may be entered manually using the logic in the table below or other logic agreed upon during the site visit.

Table: Logic for suggested 12-month childhood coverage goals			
Initial Coverage	Suggested 12-Month Coverage Goal		
0% to less than 80%	Increase by 10 percentage points		
80% to less than 85%	Increase to 90%		
85% to less than 90%	Increase by 5 percentage points		
90% to less than 95%	Increase to 95%		
95% and greater	Maintain initial percentage		

Adolescent Coverage Goals

The IQIP Database autogenerates and prepopulates suggested 12-month coverage goals for the 1 Tdap,

1 MenACWY, and UTD HPV adolescent doses (see <u>Table: Logic for suggested 12-month adolescent coverage goals</u>). The IQIP consultant and provider staff may edit these values if different goals are preferred. Coverage goals for other adolescent doses (e.g., 1 HPV, UTD HepB, 2 MMR, etc.) may be entered manually using the logic in the table or other logic agreed upon during the site visit.

Table: Logic for suggested 12-month adolescent coverage goals			
Initial Coverage	Suggested 12-Month Coverage Goal		
0% to less than 70%	Increase by 10 percentage points		
70% to less than 75%	Increase to 80%		
75% to less than 90%	Increase by 5 percentage points		
90% to less than 95%	Increase to 95%		
95% and greater	Maintain initial percentage		

<u>Discussing, Selecting, and Documenting Quality Improvement Strategies</u>



Requirement: Awardees must ensure each provider receiving an IQIP visit selects at least two QI strategies for implementation or improvement.

IQIP promotes four core QI strategies (see Module 4 – IQIP Core Strategies) and one optional awardee-developed custom QI strategy.

The core IQIP strategies are:

- 1. Facilitate return for vaccination.
- 2. Leverage IIS functionality to improve immunization practice.
- 3. Give a strong vaccine recommendation (include HPV vaccine if the provider has adolescent patients).
- 4. Strengthen vaccination communications.

The IQIP consultant should review the workflow assessment and jointly discuss each of the IQIP strategies. As part of the discussion, the consultant and provider staff work together to summarize the baseline status of all IQIP strategies. This will help determine which strategies to target for delivery of technical assistance. Based on the discussion, at least two QI strategies must be selected for implementation (if not already implemented) or improvement (if already implemented). The provider may select strategies that have already been implemented at the time of the site visit because there is always room for improvement. To maintain the collaborative nature of efforts and to match strategies to the provider's unique needs, consultants may not pre-select strategies for the provider.

The IQIP consultant records baseline status information concisely for each strategy on the Site Visit page of the IQIP Database (or a paper or electronic copy of the *IQIP Site Visit Form*):

- Summarize the strategy's current implementation status.
- Summarize existing gaps/limitations and opportunities for improvement in the current implementation of the strategy.

The IQIP consultant completes two additional fields for each strategy selected:

- Describe any technical assistance provided for the strategy during the site visit (e.g., resources shared, demonstrations, role-playing, etc.).
- Describe action items agreed upon for the strategy using the recommended format for each item.

The IQIP consultant completes one additional field for each strategy not selected:

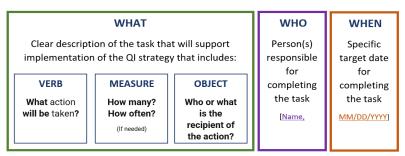
Describe the reasons why the strategy was not selected

Refer to <u>Table: IQIP strategies and examples of strategy-specific technical assistance and action items</u> and and the *Overview of IQIP Core Strategies* resource located in the IQIP Resources Toolkit in the IQIP Library for examples of action items and technical assistance. These examples include implementation or improvement steps for the provider and future technical assistance to be delivered by the consultant.

About Action Items

Action items are the steps the provider staff complete to implement or improve the implementation of their selected QI strategies. Created collaboratively by the IQIP consultant and provider staff, action items provide a path for strategy implementation and improvement efforts. The creation and completion of action items are the driving force within the IQIP program and how the actual work of process improvement occurs.

Importantly, an action item is not a restatement of the strategy itself. When creating an action item, consultants should ensure they contain these three components:



The consultant should collaborate with

the provider staff when developing and assigning action items. While most action items will be assigned to provider staff, it is also appropriate to assign some action items to the consultant. For instance, the consultant may create an action item to provide resources, demonstrations, or other forms of technical assistance.

Successful implementation of each IQIP strategy may require completion of a series of action items assigned sequentially over the course of the IQIP year. For example, the consultant and provider staff may work through the process described below and may assign appropriate action items throughout the IQIP year.

- 1. Brainstorm approaches to address existing gaps, limitations, and opportunities for improvement.
- 2. Discuss the appropriateness and feasibility of each approach at a staff meeting and select those to pursue.
- 3. Develop a protocol for the selected approach.
- 4. Train all relevant staff.
- 5. Implement the approach.
- 6. Monitor and evaluate effectiveness.
- 7. Introduce modifications and improvements as indicated (and repeat steps 3–6).

Recommended format for each action item: "Description of action item [person(s) responsible: target date]. See the **Action Items Overview** and **Building Action Items** resources located in the IQIP Resources Toolkit in the IQIP Library for more context.

About Technical Assistance

Technical assistance is a critical element in successful strategy implementation and should be provid-

ed throughout the IQIP cycle. Consultants should be prepared to offer a variety of technical assistance options for each IQIP core strategy and align the technical assistance to the specific needs of the provider location. Technical assistance options include but are not limited to:

- Role-playing how staff discuss scheduling the next appointment with parents/patients
- Providing demonstrations of IIS functions and reports and involving jurisdictional IIS technical assistance if needed
- Role-playing prescriber-parent interactions for giving a strong recommendation
- Reviewing current, applicable handouts and materials explaining their use, and what makes the source relevant and trustworthy

Core strategy-specific resources to support technical assistance and strategy implementation can be found in the IQIP Resources Index located in the IQIP Library and the IQIP Database File Repository.

Recommended format for each action item: "Description of action item [person(s) responsible: target date]"

Table: IQIP strategies and examples of strategy-specific technical assistance and action items (Refer to the Overview of IQIP Core Strategies resource found in the IQIP Library)					
Core IQIP Strategies	Examples of Technical Assistance	Example Action Items (not an exhaustive list)			
Facilitate return for vaccination	 Role play how staff discuss upcoming appointment scheduling with parents. Demonstrate how to set upreminder and/or recall for patients in the IIS. Brainstorm various options for getting patients back into the office for on-time vaccination. 	 Initiate the reminder function in the practice's EMR which sends e-mail and/or text message reminders to parents/patients. [Erica L., 6/1/2024] Front desk staff will begin making routine phone call reminders for all upcoming appointments. [Jessica S., 3/31/2024] 			
Leverage IIS functionality to improve immunization practice	 Review IIS benefits for the provider. Provide hands-on demonstration and training in IIS functionality. Demonstrate management of patient status (PAIS, MOGE, etc.). 	On the first Monday of every month, access the IIS, run a patient line list, and review missed opportunities with staff [Miguel, start 11/4/2023].			
Give a strong vaccine recommendation	 Review recent reasons for patient refusals and provide resources/training for addressing vaccine mis/disinformation. Role play patient-provider scenarios using the presumptive announcement method. Develop a script for presumptive announcement and practice its delivery. 	Encourage all staff members who discuss vaccination with families to download the "HPV Vaccine: Same Way, Same Day" mobile app; verify that all have completed the 30 minutes of interactive exercises before the 2-month check-in [Susan and Miguel: 2/1/2024].			
Strengthen vaccination communications	 Share sample vaccination policy and discuss how to develop one for the site. Share links to web resources for social media posts and web-ready gifs and memes. Provide posters and other promotional materials that can be displayed in the waiting area. 	 Put clinic's vaccine policy into all new patient packets [Rebecca: 8/30/2023]. Staff will meet with health system management to discuss updating website content to include vaccination policy and immunization info. [Julia, Mark: 11/19/2023] 			

Strategy Implementation Plan

The action items assigned for the implementation or improvement of each selected IQIP strategy combine to form the strategy implementation plan. The provider uses this plan to guide and track QI activities following the site visit, and the consultant uses the plan to prepare for delivery of additional technical assistance.

The Synopsis page of the IQIP Database concisely summarizes awardee and provider contact information, strategies selected, the strategy implementation plan, scheduled and actual dates of check-ins and follow-up, and coverage (including baseline, goals, and follow-up).

The strategy implementation plan also provides an outline of topics to cover during the next scheduled step of the IQIP cycle (i.e., the 2-month check-in). As discussed in more detail in the next two modules, the consultant updates the plan at the 2-month check-in and again at the 6-month check-in and 12-month follow-up.

Once action items for each selected strategy are recorded and saved in the Site Visit page of the IQIP Database, they are automatically collated under the heading "Strategy Implementation Plan," which is located on the Synop-

sis page. An up-to-date IQIP synopsis (and the strategy implementation plan within it) can be saved as a PDF or printed and shared with the provider after each step of the IQIP cycle. The Synopsis page is also helpful to print or display on a computer monitor for reference during check-ins and follow-ups.

For consultants who prefer not to share the autogenerated Synopsis page with providers, the *Strategy Implementation Plan Form* can be found in the IQIP Resources Toolkit located in the IQIP Library and in the IQIP Database File Repository. Awardees may develop their own summary documents to share with providers (e.g., strategy implementation plan, coverage reports, etc.), if preferred.

Site Visit Wrap-Up

The final step of the site visit is to collaborate with provider staff to identify planned dates for the checkins and follow-up. The scheduled and actual dates of these calls should be as close to the intended time interval as possible. Scheduling complications may arise, however, and CDC considers modest deviations from intended time intervals acceptable (see <u>Table: Scheduling guidelines for IQIP check-ins and follow-up</u>).

Table: Scheduling guidelines for IQIP check-ins and follow-up					
IQIP Step	Intended Interval	Minimum Acceptable Interval	Maximum Acceptable Interval		
Site Visit	_	_	_		
2-Month Check-In	2 months	1 month	3 months		
6-Month Check-In	6 months	5 months	7 months		
12-Month Follow-Up	12 months	11 months	13 months		

Consultants should send a thank you/follow-up note to the provider after the visit, and include the strategy implementation plan or Synopsis page, links to online resources, and planned dates for the check-ins and follow-up.

ENCOURAGE PROVIDER STAFF TO COMPLETE THESE ACTION ITEMS AS PART OF STAFF COMMUNICATION (i.e., MEETING, E-MAIL, REGULAR UPDATES):

- Introduce colleagues to IQIP and describe the yearlong IQIP cycle.
- Select—or introduce, if already selected—an immunization champion.
- Review selected IQIP strategies and roles/workflows to support implementation/improvement.
- Review initial coverage reports (if measured for this site visit) and coverage goals.

Module 7 – 2-Month and 6-Month Check-Ins

Overview



Requirement: The 2- and 6-month check-ins are not optional and must be conducted according to IQIP scheduling guidelines.

The purpose of the 2- and 6-month check-ins is to communicate with provider staff as they work to implement the QI strategies selected during the site visit. These calls enable consultants to identify progress made by the provider location with strategy implementation, provide additional training and technical assistance with action items, and deliver clear direction and support to the provider staff. Check-ins are conducted either by phone or virtually. **Check-ins by e-mail alone are not allowed**. For the best use of awardee resources and provider time, check-ins are not intended to be conducted face to face.

Preparing for Check-Ins

When preparing for the check-ins, consultants should contact the provider in writing prior to the 2- and 6-month check-ins to:

- Confirm the selected date and time for the check-in.
- Reiterate the purpose and goals of the call.
- Ensure the appropriate staff participates.

CDC has developed 2- and 6-month check-in checklists for consultants (see the *IQIP Preparation Checklist* located in the IQIP Resources Toolkit in the IQIP Library) to assist in preparing for the calls. Awardees may also develop their own job aids to assist with consultant preparation.

Gather and Review Relevant Information Before the Check-In

This process will reacquaint the consultant with the provider's staff, specific facility environment and support the efficient use of time during the check-in. Helpful information to review prior to the check-ins can include:

- The Synopsis page or **Strategy Implementation Plan Form**
- Notes and data in the IQIP Database from the site visit and/or previous check-in
- Relevant information regarding any VFC compliance issues that have taken place since the IQIP site visit and/or previous check-in
- Status of any technical assistance (e.g., IIS-related issues) the consultant agreed to arrange or provide
- Technical assistance previously provided to prepare any new or updated materials that will support the provider with implementing or improving the selected strategies and work towards completing the pending action items.

Assessing Coverage during Check-Ins

The 2- and 6-month check-ins are opportunities for course correction, motivation, and technical assistance based on current strategy implementation status. Consultants should remember to keep the focus of discussions with the provider on process improvement rather than coverage. Coverage reports generated by the awardee are discouraged at the 2-month check-in and are optional at the 6-month check-in. The 12-month follow-up will provide the opportunity to measure year-over-year coverage change and the sustained impact of the strategy implementation and/or improvement.

Consultants may teach providers to generate their own periodic coverage reports using the IIS. This could be included as an action item for the "Leverage IIS Functionality to Improve Immunization Practice" strategy.

Conducting Check-Ins

At the beginning of a check-in, confirm the immunization champion along with other appropriate staff are in attendance, review the IQIP cycle specifically the goal of check-ins, and give a brief outline of topics that will be covered.

If the appropriate staff are not in attendance, establish how the absent staff will be informed of discussions and any updates in action items. If the provider has not designated an immunization champion at this point, the consultant should review the importance of the immunization champion's role. Reinforce that the immunization champion take the lead on immunization promotion activities in their clinics by demonstrating leadership, collaboration, and advocacy and recommend that they designate a staff member before the next check-in or follow-up.

Review Strategy Implementation Plan

Next, review the strategies that were selected and get an understanding of changes to the implementation status for each since the site visit. Also review the status of action items for each strategy.

Check-ins provide the opportunity for tracking implementation progress. These interactions should be used to measure the quality of implementation progress and determine the effectiveness of the methods being used by the provider site. Consultants should communicate to provider staff that check-ins are an opportunity to determine if they are advancing in their strategy implementation plan and if midcourse corrections are needed. When discussing progress on action items, the consultant should ask:

Is the scope of the action item(s) narrow enough or should it be refined?

Vague or broad action items can be demotivating when there's no ability to view incremental change.

Are you where you expected to be at this point in time? If not, why not?

The provider staff may need to adjust their activities/ methods to get back on track for their 12-month targets.

Are the action items still relevant?

Were there obstacles or developments that suggest a change in direction is needed to implement the strategy?

Do you have the right team/ person?

Is there someone who can help move things along better or more smoothly?

If the provider was unable to complete any action item in their strategy implementation plan, the consultant should explore the reasons why and identify the barriers to completion. Consultants should use effective communication methods during these conversations, see <u>Table: Effective Communication Techniques</u>. Using techniques such as open-ended questions and probing questions will get to a clear picture of the struggles the provider has encountered as well as reveal opportunities for advancing the strategy in new ways. The consultant should partner with the provider to determine next steps and adjust action items if necessary.

The provision of tailored technical assistance is a critical component of an effective check-in. Consultants should come prepared with resources and/or training opportunities to advance the selected strategies. While discussing obstacles and/or new opportunities, consultant should provide technical assistance that meets the specific needs of the provider staff. Consultants should not limit technical assistance to providing additional handouts; valuable activities may include live demonstrations, role play, training, etc. If there are time constf there are time constraints during the check-in, technical assistance can be schedule for a later date.

Table: Examples of Effective Communication Techniques

Ask open-ended questions:

"What happened when you tried running reports from the IIS?"

"What concerns did parents have that you were not able to address?"

Practice reflective listening:

"It sounds like the reports you are running include patients that aren't yours. Is that correct?"

"I understand that you have new social media accounts but may need help with content related to vaccines?"

"Okay, so staff are still unclear on the vaccine messaging they are asked to deliver to parents and patients?"

Ask probing questions to identify the root cause of an identified problem:

"Why do you think that is happening?"

"Why do you think that follow-up appointments are not being scheduled routinely by all staff?"

Solicit and consider all ideas for overcoming the barrier:

"What we came up with at first doesn't seem to be working. What other ways do you think we can approach this?"

"What would help you that you don't currently have?"

Additional information can be found in the "Effective Communication for IQIP Consultants" resource found in the IQIP Resources Toolkit in the IQIP Library

Solicit and consider all ideas for overcoming the barrier:

"What we came up with at first doesn't seem to be working. What other ways do you think we can approach this?"

"What would help you that you don't currently have?"

Additional information can be found in the "Effective Communication for IQIP Consultants" resource found in the IQIP Resources Toolkit in the IQIP Library

Wrap-Up and Next Steps

At the end of the check-in, confirm the date and time for the next scheduled contact.

After the call, consultants should send a thank- you/follow-up note within two business days to the provider and include the updated strategy implementation plan, links to online resources, and a reminder of the date for the next contact. Timely follow-up is key to sustaining the momentum gained during the check-in.

Documenting the 2- and 6-Month Check-Ins in the IQIP Database



Requirement: Documentation of the 2- and 6-month check-ins in the IQIP Database is required within 10 business days after the check-in.

Answer the following questions in the IQIP Database for each selected strategy:

- What is the implementation status for the QI strategy?
- What are the existing gaps/limitations and opportunities for improvement in the current implementation of the strategy?
- What technical assistance was provided for the strategy during the check-in?
- What action items were agreed upon during the check-in?

When entering 2- and 6-month check-in information into the IQIP Database, the consultant must concisely summarize the current implementation status, existing gaps/limitations and opportunities for improvement, technical assistance given, and action items assigned.

Scheduling Challenges

Consultants should be prepared for potential scheduling issues caused by provider staff availability. Anticipating these challenges will help consultants keep the IQIP cycle on schedule.

<u>Provider Lost to Follow-Up</u>

A consultant may not always be able to complete the IQIP cycle with a provider location. Designating a provider location abase provides the option for a consultant to designate a provider as lost to follow-up is an option only if any of the following conditions are met at the time of the 2-month or 6-month checkin or the 12-month follow-up:

- Provider location has permanently closed.
- Provider has merged with another location.
- Provider no longer participates in the VFC program.
- Consultant has made four documented attempts to contact the provider by phone and e-mail over a four-week period and received no response.
- Provider location has opted out of further IQIP engagement.

The conditions met to designate the provider as lost to follow-up should be documented in the IQIP Database notes area. Do not mark the provider as lost to follow-up in the IQIP Database if there is a chance that the IQIP cycle will resume. Once a provider is designated as lost to follow-up, the IQIP cycle is terminated for that provider. To document issues with completing check-ins because of other criteria, contact the IQIP program (IQIP@cdc.gov) for assistance.

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Module 8 – 12-Month Follow-Up

Overview



Requirement: The 12-month follow-up is not optional and must be conducted according to IQIP scheduling guidelines.

The 12-month follow-up allows consultants to assess the status and support the sustainability of selected QI strategies and to review the provider's year-over-year change in coverage, working with the provider to address any potential or ongoing challenges. The follow-up should be conducted by phone or webinar unless the provider chooses to participate in another 12-month IQIP cycle. In this case, the follow-up must be conducted in person at the provider location. The follow-up will double as the site visit to launch the new IQIP cycle. Follow-up by e-mail alone is not allowed under any circumstance.

Preparing for 12-Month Follow-Up

When preparing for the follow-up, consultants should contact the provider in writing prior to the 12-month follow-up to:

- Confirm the selected date and time for the follow-up.
- Reiterate the purpose and goals of the follow-up.
- Ensure appropriate staff participates.
- Agree upon method for sharing assessment reports to be discussed during the follow-up (e.g., secured e-mail attachments, Microsoft Teams, IIS, etc.).

CDC has developed a 12-month follow-up checklist for consultants (see the *IQIP Preparation Checklist* in the IQIP Resources Toolkit in the IQIP Library) to assist awardees in preparing for the follow-up. Awardees may also develop their own job aids to assist with consultant preparation.

Gather and Review Relevant Information before the Follow-Up

This process will reacquaint the consultant with the provider's staff and specific facility environment and support the efficient use of time. Helpful information can include:

- The provider's strategy implementation plan
- Notes and data from the site visit and check-ins
- Relevant information regarding VFC compliance issues
- Status of any technical assistance the awardee immunization program agreed to provide
- Current and previous assessment reports (if generated by the consultant)

Follow-Up Assessment Reports



Requirement: The 12-month follow-up coverage assessments must be run using the same parameters used for the initial coverage assessment.

Like the initial coverage assessment, a follow-up coverage assessment at 12 months is required if it is possible to do so without a manual chart review. The 12-month coverage assessment allows the consultant and the provider staff to quantify year-over-year change in vaccine uptake and evaluate progress against the provider's 12-month coverage goals. Patients included in the 12-month assessments fall within the age ranges exposed to the quality improvement strategies implemented throughout the year-long IQIP cycle, thus allowing for a before-and-after comparison. The 12-month coverage assessment must be run using the same parameters used for the initial coverage assessment and using an assessment "as of" date as close as possible to 12 months from the date of the initial coverage assessment.

Conducting the 12-Month Follow-Up

At the beginning of the follow-up, confirm the appropriate staff is in attendance and give a brief outline of the topics that will be covered to focus the discussion. If the appropriate staff is not in attendance, establish how the absent staff will be informed of discussions and next steps. Next, review the provider's progress in implementing or improving on the selected strategies.

Review Strategy Implementation Plan

To improve strategy implementation and assess the effectiveness and sustainability of the strategies' implementation, consultants should:

- Determine if the workflow or other operational changes agreed upon during the IQIP cycle were successfully implemented and are currently being followed.
- Identify the barriers encountered if workflow or other operational changes were not implemented as intended.
- Discuss ways to overcome these barriers and provide or arrange for any technical assistance needed.
- Discuss steps the provider can take to sustain of strategy implementation and any technical assistance the consultant can either arrange or provide themselves to support sustainability efforts.
- Determine if new action items should be developed or continue working on existing action items, if incomplete.

Review of Coverage Assessments

The consultant and provider should review year-over-year coverage changes to assess impact and areas for continued focus. For example, the coverage assessments might indicate the provider made progress bundling their HPV vaccine recommendation with their recommendation for Tdap and MenACWY vaccines. In this example, if HPV vaccination coverage remained unchanged even when bundled, the consultant should further investigate how to improve the strategy's implementation.

A note about interpreting year-over-year changes in vaccination coverage: Consultants must interpret changes in coverage along with changes in the number of patients in the age cohort(s) assessed. For accurate interpretation of year-over-year change, it is important to run coverage assessments as close to 12 months from the initial coverage assessment as possible. If 12-month coverage increases considerably relative to initial coverage, and the number of patients in the assessment cohort is similar at the two time points, then consultants can reasonably conclude the IQIP strategies may have contributed to this increase. If, however, the year-over-year coverage increase is considerable but the number of patients in the cohort decreased substantially year over year, then it is

Ranking Providers by Change in Coverage

Some awardees use magnitude of change in coverage (i.e., before-and-after coverage comparison) to rank providers and honor top performers with awards or mentions in internet postings or newsletters. Seasonal effects on vaccine uptake and variation in the time interval between coverage assessments may confound such analyses. If using coverage change to rank providers, awardees should take care to ensure consistent intervals between measures and consistent use of assessment software and parameters.

likely that at least some of the coverage change is the result of changes in record-keeping (e.g., removing inactive patients from the IIS), as opposed to an actual increase in vaccine uptake. <u>Appendix E: Interpretation of IQIP Coverage Data</u> addresses this issue in greater detail.

Documenting the 12-Month Follow-Up in the IQIP Database



Requirement: Documentation of the 12-month follow-up in the IQIP Database is required within 10 business days after the follow-up.

When entering 12-month follow-up information into the IQIP Database, the consultant must concisely summarize the current implementation status, existing gaps/limitations and opportunities for improvement, technical assistance provided, and action items, if assigned.

Concluding the IQIP Cycle

The consultant should conclude the IQIP process by sending correspondence to the provider, acknowledging their participation, and encouraging them to maintain any progress achieved and continue to implement remaining action items. The correspondence should include a summary of the strategies selected, implementation progress, any ongoing action items, coverage data showing year-over-year change, and contact information for follow-up questions. To share this information, consultants may attach either the Synopsis page from the IQIP Database or an awardee-developed summary document.

Answer the following questions in the IQIP Database for each selected strategy:

- What is the implementation status of the QI strategy?
- What are the existing gaps/limitations and opportunities for improvement in the current implementation of the strategy?
- What technical assistance was provided for the strategy during the follow-up?
- What action items were agreed upon during the follow-up?

Conducting IQIP With the Same Provider Over Two Consecutive Project Years

If a provider elects to engage in IQIP for another 12-month period, the follow-up can double as the site visit to launch the new IQIP cycle but only if done in person.



Requirement: If the 12-month follow-up will double as the site visit for a new IQIP cycle, then it must be conducted in person or via Tele-IQIP.

There are two possible scenarios for conducting the 12-month follow-up:

Scenario One

If the site visit for the second IQIP cycle takes place after the 12-month follow-up for the first IQIP cycle, the routine IQIP process is followed for all stages (i.e., the 12-month follow-up is conducted over the phone, and the site visit is conducted on a later date in person).

Scenario Two

The site visit for the second IQIP cycle can be combined with the 12-month follow-up for the first IQIP cycle. In this scenario, both are conducted during a single, in-person or virtual (Tele-IQIP) meeting.

Module 9 – IQIP with Multisite Providers

Overview

Awardees may conduct IQIP activities collectively with providers who belong to the same multisite provider group. Each site must have patients in at least one of the IQIP age cohorts. At a multisite IQIP visit, the consultant conducts an in-person or virtual meeting with at least one representatives from each provider location for the site visit component of IQIP. The consultant may conduct the site visit, 2- and 6-month check-ins, and 12-month follow-up with all representatives simultaneously or divided into subsets of the multisite provider group. Benefits of conducting the joint IQIP site visit include:

- The provider group's manager(s) with authority over facility procedures can drive adoption of the selected QI strategies at a corporate level, improving the odds of successful implementation.
- Staff across participating sites can collaborate on strategy selection and implementation of policy and procedural changes as well as workflow improvement.
- Awardees and providers save time and resources spent on travel to and from multiple locations.
- Awardees may count each participating site toward meeting their 25% requirement.

IQIP should be conducted only with the sites enrolled in the VFC program that provide routine vaccination services and have patients in at least one of the IQIP age cohorts. When conducting IQIP with multisite providers, all provider locations participating in the process must be part of the same organization.

CDC IQIP staff will review data in the IQIP database and will reach out to awardees if there is not representation from each location represented or other data entered is inconsistent with CDC guidance.

IQIP operational guidance in previous modules applies when working with multisite provider groups, with some exceptions and additions. This module addresses these variations only. See *Tips for Conducting IQIP with Multisite Providers* resource along with the *Multisite IQIP Site Visit Diagram* for more context.

Modifications to IQIP Operations When Working with Multisite Providers



Requirement: Representatives from each provider location must participate in multisite site visits and check-ins and follow-up.

Assessment Reports

Vaccination coverage assessment reports must be generated and entered into the IQIP Database
individually for each provider location in the group, both for the site visit and the 12-month
follow-up. Assessment results (vaccination coverage rates and denominators) should not be identical for each site.

Pre-Site Visit Activities

Along with the activities outlined in the "Arranging a Site Visit" section of Module 5 – Pre-Site Visit Activities, consider the following when arranging a joint site visit:

- Meeting space logistics (physical space vs virtual platform)
- Internet connectivity and audio-visual equipment available (if needed)
- Attendance of at least one representative from each of the VFC-participating sites and appropriate representatives from the provider group's management
- Identifying the right point of contact within the health system's leadership when setting up a multisite visit ensures leadership buy-in and awareness. Example job titles may be:
 - Chief for Innovation and Strategy
 - Chief Quality Officer
 - Medical Director for Performance Excellence
 - Director of Clinical Quality
- If written vaccination policies for patients differ by site, the representatives should provide a copy for each location to the consultant prior to the joint visit, if possible.
- The consultant should confirm that each provider location is in the IQIP Database prior to the site
 visit to support timely entry of data and notes. If any VFC provider locations are not represented in
 the IQIP Database, contact IQIPDatabase@cdc.gov.

Site Visit

Due to the difference in setting and the participation of multiple peers from within the multisite organization, group dynamics between representatives can introduce additional challenges for the consultant. Consultants may need to employ additional facilitation skills and techniques to build rapport, create a collaborative atmosphere, and get participants invested in making changes.

In relation to the activities in Module 6 – Site Visit:

- The consultant serves as the primary facilitator for IQIP-related discussions among representatives from participating sites.
- Consultants should encourage the identification of an immunization champion for each provider location if one is not already designated.
- Direct observation of facility workflow for all participating provider locations will not be possible.
 In these cases, all providers should still describe their workflow and interactions with patients and parents verbally. The provider location hosting the multisite provider location visit should still be able to lead a walkthrough to demonstrate their workflow.
- Coverage goals must be set individually for each participating provider location.
- Individual provider locations may select the same or different QI strategies for implementation at their locations.
- Consultants should develop a strategy implementation plan for each site with action items <u>specific</u> to each site.

Check-Ins and Follow-Up

In relation to the activities outlined in <u>Module 7 - 2-Month and 6-Month Check-Ins</u> and <u>Module 8 - 12-Month Follow-Up:</u>

The 2- and 6-month check-ins and the 12-month follow-up must be conducted with staff from

- each provider location. Check-ins may be conducted individually, in subsets, or aggregately.
- Assessment reports must be generated individually for each provider location in the group.
- Share a summary of the multisite visit and check-ins with health system contacts as well as the individual provider location staff.

Training Staff to Conduct Multisite Visits

In relation to the activities outlined in Module 11 - IQIP Program Management:

- New consultants should be trained specifically on the variations required for multisite visits.
- New consultants should shadow a multisite visit including the pre-site visit activities before doing one on their own.
- IQIP Coordinators should observe and provider feedback to consultants on multisite visits in addition to single provider location site visits.

Data Collection and Reporting

- Consultants must document IQIP data and notes separately for each provider location in the IQIP Database.
- There are unique data fields for multisite visits. Consultants will need to select that the visit included multiple provider locations, state the number of locations represented, and list the name of the health system.
- The data entered for the site visit participation questions should be specific to each provider location. Consultants should list participants present only for the provider locations for which they work. Consultants should list health system staff who may have attended the visit in the separate designated notes field for health system staff who participated.
- Review the IQIP Database User Guide for additional guidance on data entry specific to multisite visits.

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Module 10 – Alternate QI Program Credit

Overview

CDC recognizes the existence of non-IQIP QI programs with goals that serve the IQIP purpose. CDC allows one-fifth (20%) of required IQIP visits to be fulfilled by awardees documenting providers engaged in such alternate QI programs, if approved by CDC. To be eligible for IQIP credit:

- The provider must be engaged in the alternate QI program at any point during the current PY (i.e., July 1, 20XX–June 30, 20XX).⁵
- The alternate QI program must focus on one or more vaccines and must target patients 18 years of age or younger.

Some alternate QI programs will be ineligible for IQIP inclusion, such as those that focus solely on adult vaccines or those featuring isolated interventions with no subsequent, ongoing QI activities.

Receipt of IQIP credit for a provider engaged in an alternate QI program does not require a site visit.

Submission and Review Process

An awardee seeking IQIP credit for provider participation in an existing QI program must complete CDC's **Alternate QI Program Credit Submission Form**. A fillable PDF version of this form is in the File Repository of the IQIP Database and in the Consultant Toolkit in the IQIP library.

- Completion of the form requires:
 - o A brief narrative demonstrating how the alternate QI program fulfills the IQIP purpose
 - o Descriptive information about the alternate QI program obtained from the organization that administers the QI program or, if necessary, from the participating provider
 - o Any available supporting materials (e.g., worksheets, presentations, URLs, or handouts) used or distributed by the alternate QI program
 - o Documentation of approval by the awardee's program manager
- The awardee should complete one form per QI program (not one form per provider).
- If an alternate QI program spans multiple awardee jurisdictions, awardees may collaborate to complete the form. But for documentation and organizational purposes, each awardee must submit a copy of the form.
- The awardee should send the completed form and relevant supporting materials to IQIP@cdc.gov with the awardee name and "Alternate QI Request" in the subject line.
- Additional supporting materials may be submitted later as new information is gathered.

CDC will review the form and supporting materials and decide on the QI program's suitability for IQIP credit. CDC will respond to submissions within two weeks of the date received. The response will state the submission status and describe any next steps for the awardee. If the submission is not approved, an explanation will be provided in the response as well as instruction for next steps if the awardee would like to resubmit. If approved, CDC will add the program to a list of approved alternate QI programs. The list will be updated regularly and located in the IQIP library and in the IQIP Database's File Repository.

⁵If provider participation in the alternate QI program ended before July 1 of the current project year, the awardee may not receive IQIP credit for that provider for that PY. Additionally, awardees may not receive credit for providers that are scheduled—but have not yet begun—to participate in an alternate QI project. Awardees must confirm with the provider that participation occurred during the current project year.

Recording Data in IQIP Database

Once CDC adds an alternate QI program to the list of approved programs, an awardee may begin entering data for providers participating in the program into the IQIP Database.

Participation by these providers will count toward IQIP requirements for up to 20% of the required visits and will count only if reported in the IQIP Database. The following data must be reported in the IQIP Database:

- The name of the alternate QI program exactly as it appears on CDC's list of approved alternate QI programs, posted in the IQIP Database File Repository and in the IQIP library
- Descriptive information about the alternate QI program (a subset of the information reported on the Alternate QI Program Submission Form)

Specific instructions for reporting alternate QI program data in the IQIP Database are included in the IQIP Database User Guide (located in the IQIP Library and in the File Repository of the IQIP Database). Alternate QI programs reported in the database that are not included on CDC's list of approved programs will not be credited for IQIP. For this reason, it is essential that awardees enter the name of the alternate QI program and the name of the organization that administers the alternate QI program into the database exactly as they appear on CDC's list of approved alternate QI programs.

Renewing Alternate QI Program Approval

Awardees may resubmit an alternate QI program for which they received approval during the previous project year. All other criteria for claiming for provider alternate QI program credit still apply. The resubmission must have an updated date and signature. An awardee may begin claiming alternate QI credit for providers participating in the program after approval has been renewed.

Awardees are not required to enter coverage data for provider locations participating in approved alternate QI programs.

Module 11 – IQIP Program Management

Overview

Proper management of an awardee's IQIP program is essential to effective implementation. Ongoing training and professional development of staff are necessary to ensure IQIP activities are conducted consistently and according to CDC standards. The IQIP program is intentionally flexible in certain areas so that awardees may adapt it to meet their individual needs and circumstances (e.g., development of a custom strategy and ability to receive credit for multisite visits and alternate QI programs). Guidance in other areas is more uniform to ensure that the key concepts promoted by IQIP remain unchanged among awardee jurisdictions. Establishment and implementation of an awardee-specific operational guide outlining clearly defined policies and procedures, as well as continuous monitoring for adherence, are necessary to ensure IQIP activities are:

- Credible
- Aligned with CDC requirements, recommendations, and guidelines
- Standard in process across awardee jurisdictions

IQIP Training

Awardees must train IQIP staff in CDC and awardee-specific IQIP requirements and recommendations. New employee and annual trainings must cover:

- Purpose and overview of IQIP, highlighting the requirements for each step in the IQIP cycle
- IQIP data reporting requirements, including use of the IQIP Database
- How to conduct both in-person and tele-IQIP site visits (if applicable)
- How to effectively communicate with provider staff, considering audience differences
- How to assure that decision-makers are present at the IQIP site visit
- The role of the immunization champion and how to advocate for providers to appoint one in their office
- How to observe, assess, and document provider immunization delivery processes and workflows (clinical and nonclinical)
- How to generate (using IIS or CoCASA if applicable) assessment reports for provider locations in each age cohort (2-year-olds, 13-year-olds, and optional 17-year-olds)
- How to interpret assessment reports, including how coverage is calculated for single vaccines as well as combination series in each age cohort
- How to communicate and discuss assessment reports with providers for both single vaccine and series coverage
- Core IQIP strategies, awardee-developed custom strategy (if applicable) and its rationale, how to assess current implementation, and how to create provider-specific action items for implementation
- How to monitor, discuss, and document provider QI implementation progress
- Available job aids and resources to support the IQIP process
- How to provide ongoing technical assistance to provider staff to support the implementation or improvement of selected QI strategies

The CDC IQIP program has created an *IQIP Consultant Training Packet* to help IQIP coordinators plan, develop and conduct training for IQIP consultants. It is recommended that IQIP coordinators use it for annual or refresher training of jurisdictional IQIP staff. Training content is divided into sessions by

IQIP topic and contain corresponding PowerPoint slides and activities, which may be edited to align with jurisdictional training needs.

Overview: Awardee Training Responsibility



Requirement: Awardees must provide training for all IQIP consultants upon hire and prior to the consultant conducting IQIP activities. All consultants must receive training each project year to ensure effective program implementation.

All IQIP staff, regardless of experience, should have job shadowing opportunities to support professional development and foster collaboration and mentorship among new and experienced IQIP staff.

IQIP coordinators should construct a training plan (see <u>Appendix H: IQIP Consultant Training Plan (Sample)</u> to ensure that all the required IQIP training components are included in the awardee-developed curricula for newly hired IQIP consultants and for annual training requirements. The training plan should be incorporated into the awardee-developed operations guide.

To perform their job duties effectively, IQIP consultants need access to and knowledge of:

- The most current CDC IQIP Operations Guide
- The most current awardee-developed IQIP operations guide
- Awardee's IIS and coverage assessment-reporting module
- The IQIP Database
- The internet and a laptop
- The IQIP Library in the ISD Awardees SharePoint Portal for educational content and training materials

If awardee IQIP and VFC program oversight involves separate coordinators, but an awardee conducts combined IQIP and VFC site visits, the VFC coordinator should be included as part of the annual IQIP training process (see Module 11 - IQIP Program Management: IQIP Training).

Skills and Attributes for Successful IQIP Interactions

Awardees should emphasize communication and interpersonal skills during consultant training. For successful IQIP interactions, the following skills and attributes are essential:

- **Knowledge** Be able to explain the purpose and benefits of IQIP. Have a clear and accurate understanding of IQIP standards and guidelines, the immunization schedule, IQIP assessment reports, and IIS use and data reporting.
- Organization Prepare for each component of the IQIP process. Have a clear and accurate
 understanding of the quality improvement strategies. Prepare for the site visit by knowing where
 to go and when to arrive. Have identification and provide business cards. Follow through with the
 provider on all actions as promised. Being organized allows a consultant to be seen as reliable,
 professional, and an effective resource.
- **Communication** When corresponding with providers, write clearly and respond in a timely manner. During visits, check-ins, and follow-ups, be positive, receptive, and open to suggestions.
- **Observation** What is seen can be more important than what is said. Visually confirm answers to questions where applicable. Use observations to support findings about the provider's strengths and opportunities for improvement.
- **Problem-solving** Identify and define problems, generate possible solutions, and collaborate in choosing the best option.

- **Critical thinking** Reconcile information provided with firsthand observations while being objective in assessment and problem-solving.
- Flexibility Expect the unexpected and try to adapt to unplanned situations.
- **Diligence** Ask questions to fill any gaps or clarify inconsistencies. Ensuring an accurate understanding of the provider's immunization practice is key to finding and solving problems.
- Supportive When providing feedback, include positive feedback along with your suggestions for improvement.

CDC encourages newly hired IQIP consultants to:

- Shadow an experienced consultant on an IQIP visit as part of their training.
- Be accompanied by the IQIP coordinator (or designee) on at least one site visit before conducting visits independently.

Custom Strategy Development



Requirement: Awardees must complete and send a custom strategy submission form to CDC for approval prior to offering it as an IQIP strategy. A custom strategy must not be entered into the IQIP Database prior to receiving CDC approval.

An awardee may choose to offer a custom strategy to providers along with the four core IQIP strategies. Only one custom strategy per awardee may be offered per project year. The custom strategy:

- May be new or based on an existing QI strategy;
- May focus on one or more vaccines;
- Must be based on available evidence or sound rationale;
- Must not be a component of one of the four core IQIP strategies;
- Must target a cohort of patients 18 years or younger and;
- Must be presented as a strategy option consistently to all providers with patients in the targeted age cohort.

Awardees may develop a novel strategy or adopt an existing strategy. In either case, strategies should be based on available evidence or sound rationale. The <u>Community Guide</u>⁶ lists several approaches for increasing vaccination coverage. Awardees may review the information available for each approach to determine which intervention suits their needs. Factors to consider during selection are:

- Has the intervention been documented as successful for the patient population you are targeting?
- Do you have the resources and expertise to provide technical assistance to implement the strategy?
- Is the strategy scalable for feasible provider implementation during the 12-month IQIP cycle?

CDC also encourages awardees to collaborate with each other and share ideas on strategy development.

⁶ https://www.thecommunityguide.org/topic/vaccination

Once the strategy is developed, the awardee must send the *Custom Strategy Submission Form* to CDC for approval prior to offering it as an option. A fillable PDF version of this form is located in the IQIP library and also in the File Repository of the IQIP Database. The submission should include:

- Name of the strategy
- How the strategy supports the IQIP purpose
- Any available evidence to support the strategy
- Description of delivery method (e.g., discussion, handouts, demos, role-playing, etc.)
- Description of resources that will be used to support the strategy

Send custom strategy proposals to IQIP@cdc.gov with the awardee name and "Custom Strategy Proposal" in the subject line and allow two weeks for CDC review. CDC will review the proposal and supporting materials and make a determination on the strategy's eligibility. CDC will respond to submissions within two weeks of the date received. The response will state the submission status and describe any next steps for the awardee. If the submission is not approved, an explanation will be provided in the response as well as instruction for next steps if the awardee would like to resubmit. If approved, CDC will add the strategy to a list of custom strategies. The list will be updated regularly and located in the IQIP library and in the IQIP Database's File Repository. Once the custom strategy has been approved, awardees need to develop the training resources needed to support its implementation. Awardees may use available CDC and partner resources found on CDC's Educational and Promotional Resources for Partners web page. A custom strategy must not be entered into the IQIP Database prior to receiving CDC approval.

CDC also recommends the use of job aids to support meeting and maintaining established performance standards or to ensure consistency among IQIP consultants. Awardees may adapt existing IQIP job aids for their custom strategies. Awardees are encouraged to share with each other the educational materials and job aids they create for their custom strategies.

Renewing Custom Strategy Approval

If an awardee wishes to continue offering an approved custom strategy during the next project year, they must resubmit that strategy for approval using the *Custom Strategy Submission Form*. The language from the previously approved *Custom Strategy Submission Form* may be reused if there are no changes to the strategy. However, the resubmission must have an updated date and program manager signature. An awardee may begin offering the custom strategy to providers after approval has been renewed.

Awardee Operations Guide



Requirement: Awardees must develop and maintain an IQIP operations guide tailored specifically for their IQIP program. The guide must align with CDC requirements, recommendations, and operational guidelines.

⁷https://www.cdc.gov/vaccines/partners/

The awardee-level operations guide should be specific and provide enough detail so new hires can easily follow protocols with minimal supervision or clarification. The immunization program manager, in collaboration with the IQIP program coordinator, must conduct annual reviews of the operations guide to verify the policies and procedures are current and align with CDC requirements and recommendations.

At minimum, the content of the awardee-specific operations guide must include the definition of the IQIP program and its purpose and describe procedures for:

- Provider location selection (see <u>Module 1 Provider Location Selection</u>)
- Generating assessment reports according to the data source used (e.g., IIS or EHR). Details
 must address the assessment parameters, timing of assessment in relation to the site visit and
 follow-up, and reports/lists (e.g., missed opportunities) to be discussed with the provider (see
 Module 2 Assessment Report Generation)
- Collecting and reporting IQIP data, including obtaining access to the IQIP Database, training on data entry, quality standards, and available reports (see <u>Module 3 - Data Collection and Reporting</u>)
- IQIP core strategies overview, rationale, and implementation examples (see Module 4 IQIP Core Strategies)
- Arranging a site visit, including scheduling, confirmation, and preparation (see <u>Module 5 Pre-Site Visit Activities</u>)
- Reviewing, interpreting, and discussing assessment reports with providers, including training on coverage assessment reports for both single vaccine and series coverage (see <u>Module 6 – Site</u> <u>Visit</u>)
- Conducting an IQIP site visit, including the purpose, timing, preparation, logistics, participants, implementation, documentation, associated correspondence, and list of educational materials to leave with a provider after a site visit. If different procedures are used for different situations (for example, different provider types), each situation should be described and included in the operational guidance (see Module 6 Site Visit)
- Conducting 2- and 6-month check-ins, including the purpose, timing, preparation, logistics, participants, implementation, documentation, and any associated correspondence (see Module 7 2-Month and 6-Month Check-Ins)
- Conducting the 12-month follow-up, including the purpose, timing, preparation, logistics, participants, implementation, and documentation (see <u>Module 8 12-Month Follow-Up</u>)
- Informing other immunization program staff when discovering issues that are outside the scope of IQIP (e.g., informing VFC staff if a provider is having difficulty with vaccine inventory management) (See Module 7 2-Month and 6-Month Check-Ins and Module 8 12-Month Follow-Up)
- Conducting IQIP with multisite providers (see Module 9 IQIP with Multisite Providers)
- Working with providers who are actively engaged in alternate QI programs, including submission to CDC for credit toward IQIP requirements (see <u>Module 10 – Alternate QI Program Credit</u>)
- Oversight and monitoring of IQIP activities and data, including annual observation of IQIP consultants as they conduct site visits, check-ins, and/or follow-ups as well as quality assurance checks on data entered in the IQIP Database (see Module 11 IQIP Program Management)
- Training IQIP staff, including curriculum for training new employees and providing periodic training updates for existing employees (see <u>Module 11 IQIP Program Management</u>)

IQIP Program Monitoring

Awardees should routinely monitor all facets of the IQIP program to maintain a high level of quality.

Awardees should define IQIP program performance standards, communicate them during training and in the awardee-specific operations guide, and use them to assess consultant performance.

Program monitoring helps to ensure:

- IQIP site visits, check-ins, and follow-ups are performed according to CDC and awardee specifications.
- Communication with providers is clear.
- Providers receive technical assistance and responses to questions and requests in a timely manner.
- Consultants enter data and notes into the IQIP Database according to CDC and awardee specifications.

Recommended methods for program monitoring:

- · Observing consultants annually during site visits, check-ins, or 12-month follow-ups
- Using the Power BI Awardee IQIP Ddashboards for visual representation of your jurisdiction's IQIP data including a table with the required performance metrics (see <u>Appendix I: Power BI Awardee IQIP Dashboards Glossary of Terms</u>). Refer to <u>Module 11 IQIP Program Management section</u>
 Required IQIP Program Monitoring Metrics
- Using the dashboard and reports in the IQIP Database to monitor visit status and data quality
 (e.g., strategy selection, overdue status of check-ins/follow-up, and quality/types of technical
 assistance provided). Refer to the *Monitoring Data in the IQIP Database* resource located in the
 IQIP Library. In addition, refer to the *IQIP Database User Guide* located in the IQIP Database's File
 Repository and in the IQIP library for additional information.
- Reviewing a random selection of consultant notes in the IQIP Database
- Conducting a provider feedback survey

Awardees may use other methods of program monitoring specific to their jurisdiction's structure.

Required IQIP Program Monitoring Metrics

Beginning with Project Year Five (PY5), awardees will be required to set targets, describe relevant IQIP program activities, and measure progress on metrics selected by CDC. The metrics selected by CDC are those associated with meeting program requirements regarding IIS-based coverage assessment and adherence to scheduling guidelines for 2- and 6- month check-ins and 12-month follow-ups. These metrics are calculated for each awardee using awardee IQIP program data submitted to the IQIP Database and visualized in the Power BI Awardee IQIP Dashboards. To access to the Power BI Awardee IQIP Dashboards, see Power BI Awardee IQIP Dashboards – How to Access resource located in the IQIP Library.

Awardees should note that these metrics were not developed for the purpose of measuring program performance for every relevant IQIP program activity associated with the project year. Rather, they were developed for the purpose of measuring program performance for IQIP program activities performed during PY5 from July 1, 2023, through June 30, 2024. This budget-year approach accurately measures program performance against CDC requirements while also simplifying awardee reporting.

The required performance metrics are listed below, see Table: IQIP Performance Metrics. Detailed de-

scriptions of the metrics and calculations are posted in the IQIP Library and included as <u>Appendix J: IQIP</u> <u>Performance Metrics and Monitoring Resources</u> in the *2023-2024 Immunization Program Operations Manual*.

Table: IQIP Performance Metrics			
Metric Name	Metric		
IIS-Based Coverage Assessment	Among IQIP providers with PY5 requirements met, percentage with initial coverage assessed using IIS data.		
2-Month Check-Ins	Among IQIP providers with PY5 requirements met, percentage of expected 2-month check-ins completed 1–3 months after the site visit.		
6-Month Check-Ins	Among IQIP providers with PY5 requirements met, percentage of expected 6-month check-ins completed 5–7 months after the site visit.		
12-Month Follow-Ups	Among IQIP providers with PY4 requirements met, percentage of expected 12-month check-ins completed 11–13 months after the site visit.		

Awardee-set targets for the selected metrics and their associated PY5 activities were submitted to CDC into the PY5 IQIP Awardee Performance Metrics Tool in CDC REDCap as part the PY5 cooperative agreement application. Mid-year progress, end-of-year progress, and action plans to address any metric values that are below awardee-set targets must be submitted into the PY5 IQIP Awardee Performance Metrics Tool by the established respective deadlines for mid-year and end-of-year cooperative agreement progress reports.

Performance Metrics Reporting Schedule

Required IQIP: Performance Metrics Reporting Schedule				
	Report No. 1 Targets	Report No. 2 Mid-Year Report and Action Plan	Report No. 3 End-of-Year Report and Action Plan	
Reporting Period	N/A	7/1/2023 – 12/31/2023	7/1/2023 – 6/30/2024	
Last date for IQIP program data entry into IQIP Database	N/A	1/10/2024	7/10/2024	
Due date for entry into the IQIP Awardee Performance Metrics Tool	Submitted as part of awardee PY5 cooperative agreement application April 24, 2023	Submission deadline of PY5 mid-year progress report (~March 2024, exact date TBD)	Submission deadline of PY5 end-of-year prog- ress report (~September 2024, exact date TBD)	

For detailed guidance on the fulfilling the program monitoring metrics reporting requirement, including gaining access to **PY5 IQIP Awardee Performance Metrics Tool**, refer to the "*IQIP Performance Metrics Reporting Guidance*" resource located in the IQIP Library.

Gathering Provider Feedback

Providers can be excellent sources for assessing certain aspects of the IQIP program. One way to collect provider opinions and feedback is through a provider satisfaction survey on IQIP operational components and educational needs. A sample survey (*IQIP Provider Satisfaction Survey*) is available in the IQIP Library. Before conducting any survey, awardees need to determine:

- Any jurisdictional clearance needed for the survey
- Purpose of the survey
- Which providers to include
- What questions to ask
- How the survey will be conducted (e.g., e-mail)
- How results will be analyzed and shared

Awardees may use other methods of program monitoring specific to their jurisdiction's structure.

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Appendices

Appendix A: Summary of IQIP Program Requirements

Appendix B: Navigating the IQIP Library on the ISD Awardees SharePoint Portal

Appendix C: IQIP Timeline Examples

Appendix D: PEAR Provider Type Definitions

Appendix E: Interpretation of IQIP Coverage Data

Appendix F: IQIP Site Visit Process Diagram

Appendix G: Vaccination Workflow Assessment Tool

Appendix H: IQIP Consultant Training Plan (Sample)

Appendix I: Power BI Awardee IQIP Dashboards – Glossary of Terms

Appendix J: IQIP Performance Metrics and Monitoring Resources

Appendix K: IQIP Resources Mentioned in this Guide: Location and Use

Printable copies of all appendices can be found in the IQIP Library in the ISD Awardees SharePoint portal.

Appendix A: Summary of IQIP Program Requirements

Provider-Level Immunization Quality Improvement: Background and Overview

> Awardees must designate an individual to serve as IQIP coordinator.

Module 1- Provider Location Selection

Awardees are required to initiate IQIP activities with 25% of CDC-defined IQIP candidate providers within their jurisdiction and to conduct timely check-in and follow-up activities with those providers already engaged in the process.

Module 2 – Generating Assessment Reports

- > CDC requires assessment of coverage for any provider receiving an IQIP site visit or 12-month follow-up if the provider has IIS data that is appropriate and available for assessment.
- Awardees must assess both childhood and adolescent cohorts if the provider has any active patients in either cohort.

Module 5 – Site Visit

- ➤ Documentation of the site visit in the IQIP Database is required within 10 business days after the site visit.
- Awardees must assess the provider's vaccination workflow prior to discussing coverage assessment data.
- Awardees must ensure each provider receiving an IQIP visit selects at least two QI strategies for implementation or improvement.

Module 6 – 2-Month and 6-Month Check-Ins

- ➤ The 2- and 6-month check-ins are not optional and must be conducted according to IQIP scheduling guidelines.
- > Documentation of the 2- and 6-month check-ins in the IQIP Database is required within 10 business days after the check-in.

Module 7 – 12-Month Follow-Up

- > The 12-month follow-up is not optional and must be conducted according to IQIP scheduling guidelines.
- ➤ The 12-month follow-up coverage assessments must be run using the same parameters used for the initial coverage assessment.
- > Documentation of the 12-month follow-up in the IQIP Database is required within 10 business days after the follow-up.
- ➤ If the 12-month follow-up will double as the site visit for a new IQIP cycle, then it must be conducted in person or via Tele-IQIP.

Module 8 – Conducting IQIP with Multisite Providers

> Representatives from each provider location must participate in multisite site visits and check-ins and follow-up.

Module 10 - IQIP Program Management

- Awardees must provide training for all IQIP consultants upon hire and prior to the consultant conducting IQIP activities. All consultants must receive training each project year to ensure effective program implementation.
- Awardees must complete and send a custom strategy submission form to CDC for approval prior to offering it as an IQIP strategy. A custom strategy must not be entered into the IQIP Database prior to receiving CDC approval.
- Awardees must develop and maintain an IQIP operations guide tailored specifically for their IQIP program. The guide must align with CDC requirements, recommendations, and operational guidelines.



Appendix B: Navigating the IQIP Library in the ISD Awardee SharePoint Portal

There are many documents and resources in the IQIP Library that may be helpful when implementing and managing the IQIP Program in your jurisdiction. The contents are divided across five main folders:



IQIP Communications

This folder contains the following subfolder:

IQIP Dispatch Newsletter – contains the IQIP newsletter communications that are periodically released throughout the project year.

IQIP Dispatch Newsletter

IQIP Conference Calls

This folder contains the following subfolder:

Ad Hoc Calls – contains slides, call recordings, and notes from impromptu program guidance calls.

Archive – contains historic notes and slides from the IQIP Update Calls that ended August 2019 and the IQIP Operations Q&A calls that ended May 2020.

IQIP Coordinator Calls – contains agendas, slides, call recordings, Q&A notes, and call chat logs from IQIP Coordinator calls from September 2019 forward. These calls are bi-monthly calls that cover implementation and program updates.

IQIP Exchange Calls
IQIP Office Hours

Ad Hoc Calls

IQIP Coordinator Calls

Archive

IQIP Exchange Calls – contains slides, call recordings, and chat logs from period awardee exchange calls on specific topics related to IQIP.

IQIP Office Hours – contains slides (if applicable) from IQIP Office Hours calls.

IQIP Database

This folder contains the current Project Year's **IQIP Database User Guide**. There is also an **Archive** subfolder that contains older versions of these documents.



IQIP Meetings

The IQIP Meetings folder contains the following subfolders:

2019 IQIP Reverse Site Visit - agendas, slides, and shared resources from this training **2021 IQIP Coordinators Training** - agendas, slides, shared resources, and video recordings from this virtual training

2022 IQIP Training Events - agendas, slides, shared resources, and video recordings from this virtual training

2019 IQIP Reverse Site Visit 2021 IQIP Coordinators Training 2022 IQIP Training Events

IQIP Program Management

The IQIP Program Management folder contains the guidance documents, resources, and supporting documents necessary to run the IQIP program. This folder contains the following subfolders:

Alternate QI Program Credit – contains the current project year's Alternate QI Credit Submission form, approved alternate QI program credit lists for each project year, and current and past awardee submissions.

Archive – contains previous versions of shared documents

Awardee Developed Resources – contains awardee-developed IQIP program resources used in their jurisdictions. These resources are compiled by the CDC and do not represent official agency guidance or program position.

Alternate QI Program Credit

Archive

Awardee Developed Resources

Custom Strategy

IQIP Consultant Training Packet

IQIP Power Bi Dashboards

IQIP Resources Toolkit

Performance Metrics

Tele-IQIP

Vaccination Restart & Catch-Up

Custom Strategy – contains the current project year's Custom Strategy Submission form, the approved lists for each project year, and current and past awardee submissions

IQIP Consultant Training Packet – contains the training resources (i.e., IQIP Training Handbook, slide decks, training guides, activity options) created to help IQIP coordinators plan, develop and conduct training for IQIP consultants. These were reviewed on Day 1 of the 2021 IQIP Coordinators Training.

IQIP Power BI Dashboards – contains resources on how to access the dashboards and performance monitoring metrics resources.

IQIP Resources Toolkit – contains resources broken down for each of the IQIP core strategies and seasonal vaccination resources and contains a copy of the IQIP Resources Index to help guide consultants. The toolkit also contains updated versions of forms and documents useful for completion of an IQIP site visit (e.g., Site Visit Form and Vaccination Workflow Assessment job aid). There are also general IQIP resources to support consultants (e.g., Effective Communication for IQIP Consultants and the Overview of IQIP Core Strategies), and for explaining the IQIP program to providers like (i.e., IQIP At-A-Glance for Providers).

Performance Metrics – contains guidance on performance metrics reporting along with monitoring resources.

Tele-IQIP – contains the most current guidance for conducting a remote IQIP site visit.

Vaccination Restart and Catch-Up – contains guidance and modified IQIP resources to use when supporting

providers and awardees with restarting vaccination programming and recalling patients who may have missed doses.

There are also additional standalone documents not included in any of the above subfolders. These documents are:

Complete IQIP Program Guidance During COVID-19 – includes tele-IQIP and in-person visit guidance

IQIP Operations Guide – CDC IQIP Operations Guide for the current project year

IQIP Required Visit Numbers – current project year

IQIP Resources Index – an Excel spreadsheet with links to various CDC and partner resources to support IQIP work. This document is also in the Consultant Toolkit subfolder.

IQIP Supervisory Observational Tool – IQIP Coordinator tool for note taking when observing IQIP consultants during a site visit

Monitoring Data in the IQIP Database – resource that outlines the data monitoring tools in the IQIP Database

Sample IQIP Consultant Training Plan – concise resource with sample structure for training consultants

Frequently Asked Questions

Q: Where can I find slides from last month's awardee call?

A: The IQIP Conference Calls folder. There are subfolders for the different types of calls that are held for IQIP. Within those subfolders, look for the date of the call you are looking to review.

Q: Where can I find resources about HPV?

A: Within the IQIP Program Management folder, there are two locations for resources.

The IQIP Resources Index is an excel document that includes a tab for the IQIP Core Strategy: Give a Strong Vaccine Recommendation. Because of the sub focus on HPV, there are several HPV specific resources linked here related to how to recommend HPV vaccination to parents and patients.

The Consultant Toolkit also has a subfolder for Give a Strong Vaccine Recommendation that includes HPV specific resources.

Q: Where can I find copies of the most recent version of the IQIP Site Visit Form for my upcoming site visits?

A: The IQIP Site Visit Form is located in the Consultant Toolkit within the IQIP Program Management folder. In addition to the IQIP Site Visit Form, there are several other resources for preparing and completing IQIP site visits.

Q: Where can I find examples of other awardees' custom strategies as we try to develop our own?

A: Approved awardee submission forms can be found in the Custom Strategies subfolder located in the IQIP Program Management folder. You can find submission forms for approved alternate QI programs in the Alternate QI subfolder.

Q: Who do I contact if I have a problem viewing a document or see an error in a particular file or resource?

A: Email IQIP@cdc.gov to get support for any issues you may have or share information about errors.

Q: A new resource was shared on an awardee call? How do I find that resource?

A: The slides from that call will include the location of any resources shared during a call. You can go to the IQIP Conference Calls folder and look through the slides from that call to find the description of the location on SharePoint. You can also email IQIP@cdc.gov for help finding a particular resource.

Appendix C



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OPERATIONAL NOTES

- IQIP visits may take place at any point during the PY to which they will be credited.
- 12-month follow-ups should occur in the PY after the PY in which the site visit occurred.
- 2- and 6-month check-ins sometimes occur during the PY within which the IQIP cycle began and sometimes during the following PY (see examples above).

	KEY	
Project Year 4 Cycle	O IQIP Site Visit	2-Month Check-In
Project Year 5 Cycle	6-Month Check-In	12-Month Follow-Up

Appendix D: PEAR Provider Type Definitions

Note: Definitions are found in the Glossary section of the PEAR User Manual and the Provider Profile Form

Addiction Treatment Center

Locations that provide counseling, behavioral therapy, medication, case management, and other types of services to persons with substance use disorders. This provider type is used for addiction treatment centers where on-site vaccination services are provided.

Birthing Hospital or Birthing Center

Birthing centers or birthing hospitals where on-site vaccination services are provided.

Community Health Center

Community-based and patient-directed organizations that serve populations with limited access to health care. This provider type is used for community health centers that provide vaccination services.

Community Vaccinator (non-health department)

Community-wide vaccinators that are external to health departments and conduct vaccination clinics in satellite, temporary, or offsite locations exclusively.

Correctional Facility

Juvenile correctional facilities as well as adult correctional facilities where juveniles are confined, and on-site vaccination services are provided. Unlike juvenile detention centers, correctional facilities are long-term in nature; youths are confined in secure correctional facilities for periods generally ranging from a few months to a year or more.

Family Planning Clinic (non-health department)

Clinics that provide contraceptive services for clients who want to prevent pregnancy and space births, pregnancy testing and counseling, assistance to achieve pregnancy, basic infertility services, STD services (including HIV/AIDS), and other preconception health services (e.g., screening for obesity, smoking, and/or mental health). This provider type is used for family planning clinics where vaccination services are provided. NOTE: Non-health department clinics that offer only STD/HIV screening and treatment services should be categorized as "STD/HIV Clinic (non-health department).

Federally Qualified Health Center

Community-based health care providers that receive funds from the HRSA Health Center Program to provide primary care services in underserved areas. This provider type is used for federally qualified health centers (FQHCs) that provide vaccination services. NOTE: For tribal or urban Indian health clinics enrolled as FQHCs, use the "Indian Health Service, Tribal, or Urban Clinic" designation.

Hospital

All hospitals, with the exception of birthing hospitals, where on-site vaccination services are provided. NOTE: For birthing hospitals, use the "Birthing Hospital or Birthing Center" designation.

Indian Health Service, Tribal, or Urban Clinic

Indian Health Service (IHS), Tribal, or Urban Indian Health Program facilities that provide vaccination services. Urban Indian Health Centers are also designated Federally Qualified Health Centers and provide comprehensive primary care and related services to American Indians and Alaska Natives. Alaska Village Clinics should be included in this provider type.

Juvenile Detention Center

Juvenile detention centers where on-site vaccination services are provided. Juvenile detention is defined as the

temporary and safe custody of juveniles who are accused of conduct subject to the jurisdiction of the court who require a restricted environment for their own or the community's protection while pending legal action.

Migrant Health Center

Centers that provide health services, including on-site vaccination services, to migratory and seasonal agricultural workers and their families.

Mobile Provider

Providers who exclusively store and administer vaccines out of a mobile facility. This designation should NOT be used for providers who have a mobile unit associated with their facility, but the unit is not the primary site for vaccine administration.

Pharmacy

Stand-alone retail pharmacies (e.g., CVS, Duane Reade, Walgreens) or retail pharmacies within a hospital or health system where on-site vaccination services are provided. This category also includes retail pharmacies that conduct community vaccination clinics at offsite or mobile locations.

Private Practice (e.g., family practice, pediatric, primary care)

Private practice locations, including solo, group, or HMO practitioners, that provide vaccination services.

Private Practice (e.g., family practice, pediatric, primary care) as agent for FQHC/RHC-deputized

A deputized provider has been delegated by a Federally Qualified Health Center (FQHC) or a Rural Health Clinic (RHC) as an agent to vaccinate underinsured children. This provider type is used for deputized private practices, including solo, group, or HMO practitioners, that provide vaccination services.

Public Health Department Clinic (state/local)

State or local public health department clinics that provide vaccination services. This category includes public health department-run STD/HIV clinics, family planning clinics, and teen health centers.

Public Health Department Clinic (state/local) as agent for FQHC/RHC-deputized

A deputized provider has been delegated by a Federally Qualified Health Center (FQHC) or a Rural Health Clinic (RHC) as an agent to vaccinate underinsured children. This provider type is used for deputized state or local public health department clinics that provide vaccination services.

Refugee Health Clinic

Clinics that are designated to improve the health care and monitor medical conditions of refugees who have relocated to the United States. This provider type is used for refugee health clinics that provide vaccination services.

NOTE: If vaccination services are provided in a location that is co-located in a physical facility with a refugee health clinic but are not administered by refugee health staff, select the category of the provider with oversight of vaccination services.

Rural Health Clinic

Clinics that are located in a non-urbanized Health Professional Shortage Area, Medically Underserved Area, or governor-designated and secretary-certified shortage area. This provider type is used for rural health clinics that provide vaccination services.

School-Based Clinic (permanent clinic location)

Permanent school-based clinics that provide vaccination services. NOTE: Non-permanent school-based clinics should be categorized as "Community Vaccinator (non-health department)."

STD/HIV Clinic (non-health department)

Clinics that provide timely STD/HIV diagnosis, testing with on-site treatment, and partner services. This provider type is used for STD/HIV clinics NOT located within a health department where on-site vaccination services are

provided. NOTE: this category should be used by non-HD clinics that exclusively offer STD/HIV screening and treatment services.

Teen Health Center (non-health department)

Teen health centers that are NOT public health department-sponsored and provide on-site vaccination services.

Urgent Care Center

Locations that provide immediate medical outpatient care for the treatment of acute and chronic illness and injury. This provider type should be used for urgent care centers or walk-in clinics where on-site vaccination services are provided.

Women, Infants, and Children (WIC) Clinic

Locations that serve low-income pregnant, postpartum, and breastfeeding women, infants, and children up to age 5 who are at nutritional risk by providing nutritious foods to supplement diets, information on healthy eating including breastfeeding promotion and support, and referrals to health care. This provider type is used for WIC clinics that also provide vaccination services. NOTE: If vaccination services are provided in a location that is co-located in a physical facility with a WIC clinic but are not administered by WIC staff, select the category of the provider with oversight of vaccination services.

Other

Any provider type not captured in one of the other provider type options (e.g., CVS Minute Clinic or Walgreens Take-Care Clinic).

Appendix E: Interpretation of IQIP Coverage Data

The IQIP site visit begins with a high-level walk-through of the provider's vaccination workflow. The IQIP consultant and provider then review the provider's initial coverage data. Specifically, they:

- Identify vaccines to target for coverage improvement,
- Set coverage goals to work toward throughout the yearlong IQIP process,
- Choose two or more quality improvement (QI) strategies to increase vaccine uptake, and
- Create a strategy implementation plan of action items assigned to appropriate personnel that are necessary for the successful implementation of the QI strategies chosen.

The IQIP 2- and 6-month check-ins and 12-month follow-up focus on reviewing implementation progress and updating the strategy implementation plan with new or revised action items. The 12-month follow-up also includes review and interpretation of year-over-year (YOY) coverage data.

This document focuses on the interpretation of coverage data for five example providers who begin the IQIP process with identical coverage but end up with different 12-month coverage outcomes.

Initial Assessment

Providers 1–5 start out with identical coverage (table on the right). The following points emerge after reviewing their initial assessments.

- All providers have room to improve overall vaccine uptake since coverage for all vaccines assessed is well below 100%.
- Some providers cite poor immunization information system (IIS) data quality and claim their actual coverage is higher.
- Nonetheless, opportunities for improvement exist—even if the providers are right that the IIS source data are imperfect.
- For instance, Vaccine B coverage is well below that of Vaccines
 A and C. Providers should aim to increase Vaccine B uptake.

Data quality issues *can* influence coverage calculations, *usually* affecting results for all vaccines to a similar degree (rather than causing substantially lower coverage for just one or a few vaccines).

Providers 1–5. All have identical initial coverage.

Variable	Initial assessment		
Assessment info			
"As of" date	8/8/2023		
Cove	rage		
Vaccine A	83%		
Vaccine B	64%		
Vaccine C	85%		

Consultants can often draw meaningful insights from imperfect vaccination data. The intent of the initial assessment is to work with available data to reveal overall patterns and to identify outliers.

Consultants may find the following points helpful when talking to providers with IIS data concerns:

- If the provider is right that their actual coverage is higher than the assessment indicates, they may select the "leverage IIS" strategy and work through the IQIP year to improve data quality. This will improve coverage assessment accuracy at the 12-month follow-up and beyond.
- The "leverage IIS" strategy is not an option when (a) the IIS is not yet functional, or (b) the provider is not interested in IIS-focused QI. In these cases, the provider and consultant may opt to review EHR-based coverage data instead, as long as the provider's EHR has the capacity to generate coverage data and the provider (not the consultant) runs the reports.

12-Month Follow-Up

Data for the five providers diverged after 12 months, leaving varying outcomes to evaluate. Interpretation of coverage data for **Provider 1** (on the right) is straightforward. The cohort size (that is, the denominator) started and ended the IQIP year at 114 age-eligible patients. The provider's coverage did not change, either. Provider 1, therefore, shows no evidence of increased uptake of the vaccines assessed.

Provider 2 and **Provider 3** would each receive credit for impressive YOY progress if reviewing only cover-

Provider 1. No change in denominator or coverage.

Variable	Initial assessment	12-month follow-up	YOY change		
	Assessment info				
"As of" date	8/8/2023	8/10/2024	12.1 mo.		
No. age-eligible patients total	114	114	0%		
Coverage					
Vaccine A	83%	83%	0 ppt		
Vaccine B	64%	64%	0 ppt		
Vaccine C	85%	85%	0 ppt		

age (top, black numbers for each vaccine in the tables below). Both posted 8 and 9 percentage point (ppt) increases for Vaccines A and C, respectively, and a huge 18 ppt increase for Vaccine B. But the similarities end when considering coverage with denominator data. Provider 2 had a steady cohort size for the year (114 patients). Thus, Provider 2's coverage increases reflect increases in patients vaccinated (bottom, blue numbers below; equal to coverage multiplied by denominator). In one year, Provider 2 increased uptake of Vaccines A, B, and C by 9%, 27%, and 10%, respectively.

Provider 2. No change in denominator or coverage.

Trovider 2: No change in denominator of coverage.			
Variable	Initial assessment	12-month follow-up	YOY change
	Assessme	nt info	
"As of" date	8/8/2023	8/11/2024	12.1 mo.
No. age-eligible patients total	114	114	0%
Coverage No. patients vaccinated			
Vaccine A	83% 95	91% 104	+8 ppt +9%
Vaccine B	64% 73	82% 93	+18 ppt +27%
Vaccine C	85% 97	94% 107	+9 ppt +10%

Provider 3. Decrease in denominator and increase in coverage.

Trottadi di Bedreade in dell'onimiator dira moreade in doverage.				
Variable	Initial assessment	12-month follow-up	YOY change	
	Assessme	nt info		
"As of" date	8/8/2019	8/11/2020	12.1 mo.	
No. age-eligible patients total	114	83	-27%	
Coverage				
	No. patients v	vaccinated		
Vaccine A	83%	91%	+8 ppt	
	95	76	-20%	
Vaccine B	64%	82%	+18 ppt	
	73	68	-7%	
Vaccine C	85%	94%	+9 ppt	
	97	78	-20%	

Provider 3, meanwhile, administered Vaccines A, B, and C to fewer patients during the year (-20%, -7%, and -20%, respectively). Their vaccination coverage increases stem largely from a 27% denominator decrease after inactivating patients from the IIS, with one exception—Vaccine B. While the numbers of patients who received Vaccines A and C dropped steeply (-20% each), Provider 3 mostly negated this trend for Vaccine B (-7%), an indication of meaningful progress. Provider 2 also deserves praise for Vaccine B progress, which far exceeded their already impressive Vaccine A and C results.

Provider 4 and **Provider 5** also ended the IQIP year with smaller denominators, each dropping 11% (see tables below). However, unlike Provider 3, these providers did not see a decrease in vaccinated patients (blue numbers below). Provider 4 held steady (0% YOY change) for all three vaccines, yet coverage increased by 8 ppt for Vaccine B and 10 ppt for Vaccines A and C. Interpretation of these results hinges on the reason for the drop from 114 to 102 patients. If the drop reflects a "natural" dip in population—that is, if 12 fewer patients aged into the assessment cohort during the year—then these results point to vaccination performance gains by Provider 4. This conclusion may change if the cohort size decreased because Provider 4 inactivated patients from the IIS. Evidence would still point to improved performance if coverage of inactivated patients was the same or similar to coverage of active patients (that is because YOY coverage increased with no "help" from the patient inactivation's). On the other hand, if all or most of the inactivated patients were unvaccinated, then Provider 4's coverage increases came primarily from a shrinking denominator, not improved performance.

The Provider 4 scenario is the most challenging to interpret, but evaluation of Provider 5 is easier. Provider 5 ended with a decreased denominator and increased coverage, just like Providers 3 and 4. Inactivating patients from the IIS shrinks the denominator and can sometimes cause an "artificial" increase in calculated coverage even if actual vaccine uptake did not increase (again, see Providers 3 and 4). But inactivating patients cannot cause the YOY increase in number of vaccinated patients seen for Provider 5. Provider 5 increased uptake of all vaccines despite its decrease in patient numbers.

Provider 4. Decrease in denominator and no change in number of patients vaccinated.

Variable	Initial assessment	12-month follow-up	YOY change
	Assessme	nt info	
"As of" date	8/8/2023	8/11/2024	12.1 mo.
No. age-eligible patients total	114	102	-11%
Coverage No. patients vaccinated			
Vaccine A	83% 95	93% 95	+10 ppt 0%
Vaccine B	64% 73	72% 73	+8 ppt 0%
Vaccine C	85% 97	95% 97	+10 ppt 0%

Provider 5. Decrease in denominator and increase in number of patients vaccinated.

Variable	Initial assessment	12-month follow-up	YOY change
	Assessme	nt info	
"As of" date	8/8/2023	8/11/2024	12.1 mo.
No. age-eligible patients total	114	102	-11%
Coverage No. patients vaccinated			
Vaccine A	83% 95	98% 100	+15 ppt +5%
Vaccine B	64% 73	83% 85	+19 ppt +16%
Vaccine C	85% 97	99% 101	+14 ppt +4%

Conclusion

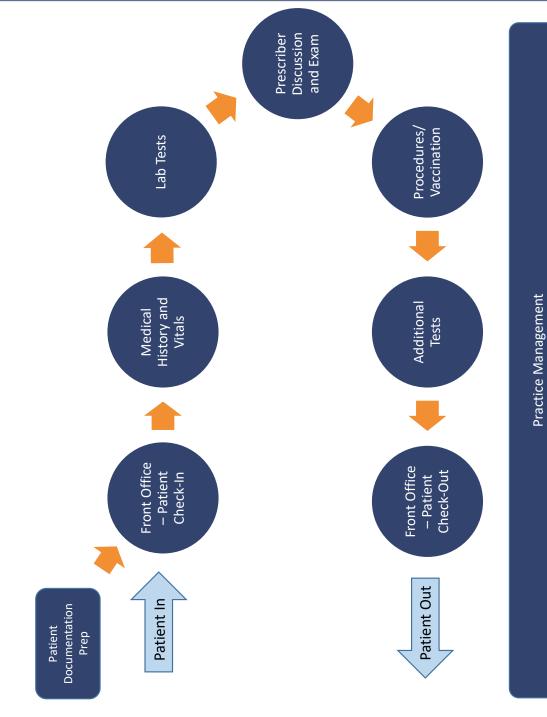
Evaluation of YOY coverage data is generally uncomplicated when cohort sizes are relatively stable (see Providers 1 and 2), a common scenario among providers. Yet IQIP encourages providers to add upkeep of IIS data to their routine workflows, and that can result in fewer active patients and can complicate data interpretation. Still, consultants can usually share valuable insights with providers by interpreting coverage data and denominator data together, as reviewed here with Providers 1–5.



Appendix F: IQIP Site Visit Process Diagram







Points to consider:

- Does that location have a vaccination policy for patients? How is it shared with patients?
 - Who reviews the patient's vaccination history and determines needed vaccines? When is this done? What source is used (IIS or EHR)?
- 3. Who discusses vaccines with the patient/parents? When is this done?
- 4. Is adherence to the ACIP schedule and the importance of vaccination promoted by all staff and visible in all areas of the clinic?
 - 5. Which staff can play a part in making or reinforcing a strong vaccine recommendation?
- 6. When are vaccination data documented in the IIS or EHR?
- 7. When and by whom are the due dates for future vaccination discussed?
- 8. When and by whom is the next vaccination appointment made? Are there patient reminders before the next visit?
 - How is the vaccination policy and vaccine services promoted using all possible communication channels?

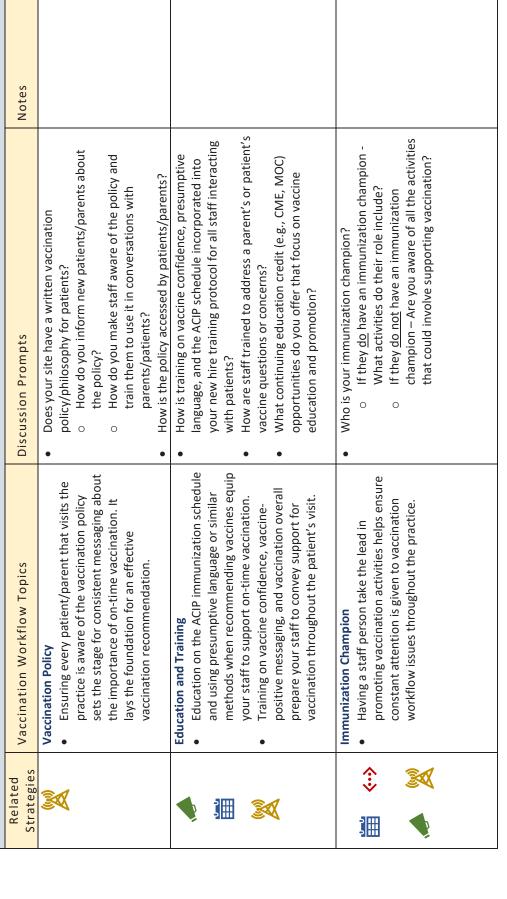






	Lev	Str
Key	<··>	
	Facilitate return for vaccination	Give a strong recommendation

					Key	
Patient Documentation Prep	Prescriber Discussion Olscussion and Exam	Vaccination Patient Check-Out	2	Facilitate return for vaccination	‡	Leverage IIS functionality
	Practice Management			Give a strong recommendation		Strengthen vaccination communications
Practice Management	agement					
Related Strategies	Vaccination Workflow Topics	Discussion Prompts		Notes		
	Vaccination Policy	 Does vour site have a written vaccination 	tion			
X	 Ensuring every patient/parent that visits the 	policy/philosophy for patients?				
	practice is aware of the vaccination policy	 How do you inform new patients/parents about 	/parents al	out		
	sets the stage for consistent messaging about	the policy?				
	the importance of on-time vaccination. It	 How do you make staff aware of the policy and 	the policy	pue		
	lays the foundation for an effective	train them to use it in conversations with	ons with			
	vaccination recommendation.	parents/patients?				
		 How is the policy accessed by patients/parents? 	s/parents?			
•	Education and Training	How is training on vaccine confidence, presumptive	e, presump	ive		
j	 Education on the ACIP immunization schedule 	language, and the ACIP schedule incorporated into	rporated ir	to		
0	and using presumptive language or similar	your new hire training protocol for all staff interacting	I staff inter	acting		
▒	methods when recommending vaccines equip	with patients?				
4	your staff to support on-time vaccination.	 How are staff trained to address a parent's or patient's 	rent's or pa	tient's		
<u></u>	 Training on vaccine confidence, vaccine- 	vaccine questions or concerns?				
8	positive messaging, and vaccination overall	 What continuing education credit (e.g., CME, MOC) 	g., CME, M)C)		
	prepare your staff to convey support for	opportunities do you offer that focus on vaccine	on vaccine			
	vaccination throughout the patient's visit.	education and promotion?				
	Immunization Champion	Who is your immunization champion?	۲.			
	 Having a staff person take the lead in 	 If they <u>do</u> have an immunization champion - 	tion champ	ion -		
	promoting vaccination activities helps ensure	What activities do their role include?	include?			
	constant attention is given to vaccination	 If they do not have an immunization 	nization			
•				-		







Patient Docun	Patient Documentation Preparation		
Related Strategies	Vaccination Workflow Topics	Discussion Prompts	Notes
**	 Patient vaccination status Knowing what vaccines are due before the patient's visit helps keep everyone on track. 	 How does staff prepare the patient's vaccination history and list of vaccines due for the scheduled visit? If they don't use the IIS, how does staff reconcile parent's records with the provider's vaccination record or EHR? 	
* :	Patient contact information • Maintaining accurate contact information supports IIS-based reminder/recall.	 How does staff ensure they can contact parents to schedule appointments or other follow-up care issues? How does staff reconcile differences between patient information in the IIS and their EHR? 	
\$	 Patient status in IIS Maintaining accurate active/inactive status supports practice-level coverage rates, patient lists, and IIS-based reminder/recall accuracy. 	 How do staff maintain accurate patient active/inactive status in the IIS? 	





Patient Check-in	ck-in		
Related Strategies	Vaccination Workflow Topics	Discussion Prompts	Notes
***	 Patient contact information Maintaining accurate contact information supports IIS-based reminder/recall. 	 How does staff ensure they can contact parents to schedule appointments or other care issues? How does staff verify/update patient contact information? 	
	 Vaccination promotion Making information about vaccines readily available saves time by helping patients and parents answer their questions before meeting with you. Proactively sharing your vaccination policy lays the foundation for effective vaccine recommendations. Welcoming and answering questions helps patients and parents feel supported. 	 What information is made readily available to patients and families about vaccination? How is the vaccination policy made available to patients and their families? What training do staff receive to guide them in providing positive vaccine messaging during patient visits? How are staff trained to respond to questions or concerns about vaccines? 	
34 \$	 Patient vaccination status The ACIP immunization schedule is built into the IIS to ensure that staff can inform parents of vaccines needed at the visit. Complete data in the IIS improves vaccine recommendations and accuracy of assessment reports. By assessing vaccination status at every visit, missed opportunities to vaccinate can be avoided, and the message that vaccinations are essential can be reinforced. 	 How does staff identify which doses are due for the patient's visit? What do staff do with a patient's historical vaccination records if presented at check-in? What is the procedure for assessing vaccination status during sick visits or drop-ins? 	







Notes Preside Vaccination Workflow Topics Preseduting	Low Low	ffective the sons parents decide to trusted source of trusted source of setions helps patients	How does the prescriber recommend vaccines in the exam room? Ask them to demonstrate. What training or education is provided to familiarize prescribers with common reasons parents may not trust vaccines? How does the provider respond when parents	Notes
Research has shown that an effective Research has shown that an effective recommendation from a healthcare professional is one of the most essential reasons parents decide to vaccinate. Prescribers are parents' most trusted source of information about vaccination. Welcoming and answering questions helps patients and parents feel supported. Documentation Complete vaccination data in the IIS improves vaccine recommendations and accuracy of assessment reports. Scheduling AAP recommends scheduling the next vaccination appointment to help keep patients on track for vaccination. Multiple visit types (e.g., nurse-only, vaccinationonly) provide more scheduling options for busy parents and help them keep their children on track with their vaccinations. The ACIP immunization scheduling so staff can ensure future vaccination visits are scheduled at the correct intervals.	Low Doca	that an effective Im a healthcare professional is Intial reasons parents decide to Its' most trusted source of accination. Vering questions helps patients		
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 Scheduling AAP recommends scheduling the next vaccination appointment to help keep patients on track for vaccination. Multiple visit types (e.g., nurse-only, vaccination-only) provide more scheduling options for busy parents and help them keep their children on track with their vaccinations. The ACIP immunization schedule is built into the IIS to provide date ranges for scheduling so staff can ensure future vaccination visits are scheduled at the correct intervals. 			How often and using what method does the	
 AAP recommends scheduling the next vaccination appointment to help keep patients on track for vaccination. Multiple visit types (e.g., nurse-only, vaccinationonly) provide more scheduling options for busy parents and help them keep their children on track with their vaccinations. The ACIP immunization schedule is built into the IIS to provide date ranges for scheduling so staff can ensure future vaccination visits are scheduled at the correct intervals. 			provider report to the IIS?	
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Multiple visit types (e.g., nurse-only, vaccination-only) provide more scheduling options for busy parents and help them keep their children on track with their vaccinations. The ACIP immunization schedule is built into the IIS to provide date ranges for scheduling so staff can ensure future vaccination visits are scheduled at the correct intervals.			when scheduling future vaccination visits?	
ack e IIS nr t the		it types (e.g., nurse-only, vaccination-	How does the prescriber inform staff when to	
•	only) provid	le more scheduling options for busy	schedule patients to return for their next	
•	parents and	i help them keep their children on track	vaccination appointment?	
	with their ve	accinations.	 How is this information shared with the 	
to provide date ranges for scheduling so staff can ensure future vaccination visits are scheduled at the correct intervals.	The ACIP im	imunization schedule is built into the IIS	parents?	
ensure future vaccination visits are scheduled at the correct intervals.	to provide d	date ranges for scheduling so staff can		
correct intervals.	ensure futur	re vaccination visits are scheduled at the		
	correct inter	rvals.		





Vaccination			
Related Strategies	Vaccination Workflow Topics	Discussion Prompts	Notes
♦	 Providing an after-visit summary to the patient and parent serves as a reminder of when to return. 	 If the parent requests a copy of their child's updated vaccination record, how does staff provide it? How does staff inform the parent of electronic methods (e.g., IIS public access portal, provider's EHR patient portal, etc.) for independent lookup? 	
	 AAP recommends scheduling the next vaccination appointment to help keep patients on track for vaccination. Scheduling future appointments before vaccination allows the parent to soothe their child without distraction. The ACIP immunization schedule is built into the IIS to provide date ranges for scheduling so staff can ensure future vaccination visits are scheduled at the correct intervals. When providers give a clear "on or after" date to parents and checkout staff for selecting the next appointment date, it helps ensure patients aren't vaccinated too early, thus avoiding invalid doses. 	 What steps would be taken to schedule the next appointment before vaccines are administered to the patient in the exam room? How does staff identify upcoming vaccines that must be scheduled for the patient? Using what source of information? The prescriber? The IIS? How is the parent informed about what vaccines are due next and when? Through what age? 	





Patient Check-Out	:ck-Out		
Related Strategies	Vaccination Workflow Topics	Discussion Prompts	Notes
\$	 Documentation Providing an after-visit summary to the patient and parent serves as a reminder of when to return. 	 If the parent requests a copy of their child's updated vaccination record, how does staff provide it? How and when does staff inform the parent of technology available, such as the IIS public access portal for independent lookup or EHR/EMR patient portals? 	
☼	 Scheduling AAP recommends scheduling the next vaccination appointment to help keep patients on track for vaccination. When providers give a clear "on or after" date to parents and checkout staff for selecting the next appointment date, it helps ensure patients aren't vaccinated too early, thus avoiding invalid doses. 	 How does staff identify when to schedule due patient vaccination appointments? Using what source of information? The prescriber? The IIS? How is the parent informed about what vaccines are due next and when? Through what age? Does staff provide the parent with an updated vaccination record with the subsequent doses and due dates? From what source? 	
⇔	 Reminder and Recall Notices Ongoing communication is essential to ensure patients keep their appointments and stay on schedule with vaccinations. 	 What processes are in place for appointment reminders? What language is used to ensure accessible scheduling and effective reminders? 	
34	 Vaccine Promotion Providers are parents' most trusted source of information about vaccination. Making information about vaccines readily available saves time by helping patients and parents get their questions answered before they meet with the provider. 	 What regular communications are sent to parents/patients? How could those communications be used to promote on-time vaccination? How can the provider promote vaccination services to parents/ patients or convey positive vaccination messages and resources from trusted messengers (e.g., social media reels/memes, newsletter highlights, website buttons)? 	

Appendix H: IQIP Consultant Training Plan (SAMPLE)

Purpose	
Learning Objectives	
Desired Outcomes	

Training Schedule

Trigger	Timing/ Frequency	Subjects
Newly hired consultants and newly assigned role as IQIP consultant	Within 1 month of hire or having the IQIP consultant role – Before conducting IQIP visits on their own	 Purpose and overview of IQIP Current childhood and adolescent ACIP immunization schedule Awardee-level IQIP Operations Guide and comprehensive training (see curriculum below) CDC IQIP Database User Guide Shadow experienced consultant before the first site visit Observed by an experienced consultant or the IQIP coordinator before conducting them on their own
Annual training requirement for new project year	Annually in July-August, be- fore conducting IQIP visits for the new project year	 CDC IQIP program requirements for the new project year Updated awardee-level IQIP operations guide Awardee policies, procedures, and performance standards for the new project year IIS assessment reports Observations of IQIP consultants by IQIP coordinator and/or supervisor
Custom QI strategy rollout	Before conducting IQIP visits with the approved custom strategy.	 Overview and rationale of the custom strategy Implementation or improvement examples Technical assistance content and delivery methods Resources and materials supporting custom strategy

IQIP Program Training Curriculum

			De	livery Metho	d		
Торіс	Presentation	Demo	Role play	Knowledge Check	Shadowing	Worksheet	Materials/Resources
Awardee-level IQIP operational procedures	✓			✓			Awardee-specific IQIP operations guide
IQIP Database: use and data entry requirements	√	√		√	✓	√	 CDC IQIP Database User Guide Awardee-specific IQIP operations guide Awardee-developed IQIP training materials

			Del	ivery Metho	d		
Торіс	Presentation	Demo	Role play	Knowledge Check	Shadowing	Worksheet	Materials/Resources
Purpose and overview of IQIP	√		✓				CDC's IQIP At-A-Glance Awardee-specific IQIP operations guide
Scheduling and conducting IQIP site visits, 2- and 6-month check-ins, and 12-month follow-ups	✓	✓	✓	√	√		CDC's IQIP Consultant Toolkit CDC's IQIP Preparation Checklist Awardee-developed IQIP operations guide Awardee-developed IQIP training materials
Observation and assessment of provider vaccination workflow	√	✓	✓		√	√	CDC Vaccination Workflow Assessment tool CDC's process mapping tool Provider office scenarios
Action items and creating the strategy implementation plan	√			√			CDC's Action Items Overview CDC's Building Action Items
Provider-level assessment reports: generating reports from IIS	√	√		√	√	✓	Awardee-specific IQIP operations guide Job aids Awardee-specific IIS resource guide
Provider-level assessment reports: interpretation and presentation	√	✓	√	√	√		CDC's assessment report interpretation guidance Examples of provider-level assessment reports with summary of findings
Effective communication	√	✓	√	√	√	√	 CDC's Effective Communication for IQIP Consultants Provider office scenarios Communication flow charts
Core IQIP strategies	✓			✓		✓	CDC's IQIP core strategies resources and tools CDC's IQIP Consultant Toolkit
Awardee-developed custom strategy	√			√	√	√	Awardee-developed IQIP training materials Awardee-developed resources
Technical assistance and training methods	√	√	✓		√		Awardee-developed IQIP training materials

IQIP check-ins: providing technical assistance and reviewing action items	√	✓	√	√	CDC's IQIP Preparation Checklist Awardee-specific IQIP operations guide
Monitoring, discussion, and documentation of QI strategy implementation progress	√		√	√	CDC's IQIP Database User Guide Awardee-specific IQIP operations guide
IQIP 12-month follow-up: reviewing status of action items, providing techni- cal assistance, discussing year-over-year coverage	✓	√	√	√	CDC's IQIP Preparation Checklist Awardee-specific IQIP operations guide CDC's Interpretation of IQIP Coverage Data

Appendix I: Power BI Awardee IQIP Dashboards – Glossary of Terms

Definitions in this glossary are taken from the PY5 Power BI Awardee IQIP Dashboard. See dashboards for other project years when examining specific details of definitions, such as dates.

Project year requirements met

PY5 requirements met (IQIP) – Initiation & initial coverage and site visit stages are complete, as defined in the 'Completed stages' section below.

PY5 requirements met (alternate QI) – Initiation & initial coverage is complete, as defined in the 'Completed stages' section below.

Cycle complete

QI cycle complete (IQIP) – Initiation & initial coverage, site visit, 2-month check-in, 6-month check-in, and 12-month follow-up are complete, as defined in the 'Completed stages' section below.

QI cycle complete (alternate QI) – Initiation & initial coverage is complete.

Completed stages

Completed initiation & initial coverage – Initiation & Initial Coverage page in the IQIP Database is saved as 'complete' *and either A, B, or C below is true*.

- A. At least one initial assessment date (child and/or adolescent) is not blank, and
 - the number of patients assessed is not blank and is greater than zero for the child and/or adolescent initial assessment cohort, and
 - no initial assessment date is after the final day of PY5 (6/30/2024) or more than 30 days before the start of PY5 (7/1/2023).
- B. Coverage was not assessed because no electronic data were available for assessment.
- C. Alternate QI was selected as the QI type and the name of the alternate QI project name was entered.

Completed site visit – Initiation and initial coverage is complete, and

- QI type is IQIP,
- the Site Visit page in the IQIP Database is saved as 'complete', and
- the site visit date is not blank and is not later than the final day of PY5 (6/30/2024) or before the first day of PY5 (7/1/2023).

Completed 2-month check-in – PY4 requirements are met, and

- QI type is IQIP,
- the 2-Month Check-In page in the IQIP Database is saved as 'complete',
- the provider was not lost to follow-up, and
- the 2-month check-in date is not blank and is at least 1 month (30 days) and at most 5 months (153 days) after the site visit date.

Completed 6-month check-in – PY4 requirements are met, and

- QI type is IQIP,
- the 6-Month Check-In page in the IQIP Database is saved as 'complete',
- the provider was not lost to follow-up,
- the 6-month check-in date is not blank and is at least 4 months (121 days) and at most 11 months (335 days) after the site visit date, and
- the 6-month check-in date is at least 30 days after the 2-month check-in date (if a 2-month date is reported).

Completed 12-month follow-up – PY4 requirements are met, and

- the 12-Month Follow-Up page in the IQIP Database is saved as 'complete',
- the provider was not lost to follow-up, and
- the 12-month follow-up date is not blank, and
- For IQIP:
 - o The 12-month follow-up date is at least 9 months (274 days) and at most 13 months (396 days) after the site visit date, and
 - o the 12-month follow-up date is at least 30 days after the 6-month check-in date (if a 6-month date is reported).

Timing of completed stages

On time

- <u>2-month check-in</u> Check-in date is at least 1 month (30 days) and at most 3 months (92 days) after the site visit date.
- <u>6-month check-in</u> Check-in date is at least 5 months (153 days) and at most 7 months (214 days) after the site visit date.
- <u>12-month follow-up</u> Follow-up date (or, for alternate QI, latest 12-month assessment date) is at least 11 months (335 days) and at most 13 months (396 days) after the site visit date (or, for alternate QI, after the earliest initial assessment date).

Early

- <u>2-month check-in</u> N/A (2-month check-ins conducted before the "on time" interval of 1 month (30 days) after the site visit date are too soon and are not counted as complete).
- <u>6-month check-in</u> Check-in date is at least 4 months (121 days) and less than 5 months (153 days) after the site visit.
- <u>12-month follow-up</u> Follow-up date (or, for alternate QI, latest 12-month assessment date) is at least 9 months (273 days) and less than 11 months (335 days) after the site visit date (or, for alternate QI, after the earliest initial assessment date).

Late

- <u>2-month check-in</u> Check-in date is more than 3 months (92 days) and at most 5 months (153 days) after the site visit date.
- <u>6-month check-in</u> Check-in date is more than 7 months (214 days) and at most 11 months (335 days) after the site visit date.
- <u>12-month follow-up</u> N/A (12-month follow-ups are not counted if conducted later than the "on time" interval).

Timing of incompleted stages

Not overdue

- <u>2-month check-in</u> Site visit date is not more than 3 months (92 days) ago.
- 6-month check-in Site visit date is not more than 7 months (214 days) ago.
- <u>12-month follow-up</u> Site visit date (or, for alternate QI, earliest initial assessment date) is not more than 3 months (92 days) ago.

Overdue (still time)

- <u>2-month check-in</u> Site visit date is more than 3 months (92 days) but not more than 5 months (153 days) ago.
- <u>6-month check-in</u> Site visit date is more than 7 months (214 days) but not more than 11 months (335 days) ago.
- <u>12-month follow-up</u> N/A (12-month follow-ups are not counted if conducted later than the "on time" interval).

Overdue (too late)

- <u>2-month check-in</u> Site visit date is more than 5 months (153 days) ago.
- 6-month check-in Site visit date is more than 11 months (335 days) ago.
- 12-month follow-up Site visit date is more than 13 months (396 days) ago.

Expected stages

'Expected' stage completion refers to the point at which a stage is overdue if not yet completed. For instance, a 6-month check-in is 'on-time' if it's completed 5–7 months after the site visit. Therefore, after the 7 months the 6-month check-in is expected to be complete. These 'expected' counts are used to calculate the 'Required performance metrics' defined in the section below.

- Expected 2-month check-in PY5 requirements are met, and the site visit date is more than 3 months (92 days) ago.
- Expected 6-month check-in PY5 requirements are met, and the site visit date is more than 7 months (214 days) ago.
- Expected 12-month follow-up PY5 requirements are met, and the site visit date is more than 13 months (396 days) ago.

Required performance metrics

Among IQIP providers with PY5 requirements met, percentage with initial coverage assessed using IIS data = (Number of IQIP providers with PY5 requirements met and initial coverage assessed using IIS data) / (Number of IQIP providers with PY5 requirements met) * 100

Among IQIP providers with PY5 requirements met, percentage of expected 2-month check-ins completed 1-3 months after the site visit = (Number of IQIP providers with PY5 requirements met and an expected 2-month check-in that is completed on time) / (Number of IQIP providers with PY5 requirements met and an expected 2-month check-in) * 100

Among IQIP providers with PY5 requirements met, percentage of expected 6-month check-ins completed 5-7 months after the site visit visit = (Number of IQIP providers with PY5 requirements met and an expected 6-month check-in that is completed on time) / (Number of IQIP providers with PY5 requirements met and an expected 6-month check-in) * 100

Among IQIP providers with PY5 requirements met, percentage of expected 12-month check-ins completed 11-13 months after the site visit = (Number of IQIP providers with PY5 requirements met and an expected 12-month follow-up that is completed on time) / (Number of IQIP providers with PY5 requirements met and an expected 12-month follow-up) * 100

NOTE: For your performance metrics reporting, you will need to look at the PY4 dashboard to see the metric for completion of 12-month follow-ups.

Other metrics

IQIP-only site visit – CDC recommends IQIP-only site visits instead of IQIP site visits combined with VFC compliance visits. This number reflects the percentage of completed IQIP site visits that were reported as IQIP-only. The higher this number, the better.

Lost to follow-up – Percentage of providers reported as lost to follow-up after receiving an IQIP site visit marked as complete in the IQIP Database. Specific criteria must be met for a provider to be reported as lost to follow-up. For more information, see the IQIP Operations Guide or the 2-Month, 6-Month, or 12-Month pages for a provider in the IQIP Database. This measure does not include providers credited for participation in an Alternate QI program.

Multi-site visit – Percentage of providers participating in IQIP site visits with multiple providers from the same health care system. The denominator is the number of providers with site visits reported as complete in the IQIP Database.

Both child and adolescent coverage assessed – IQIP requires assessment of both childhood and adolescent coverage for all providers that have patients within both age cohorts, which is most providers. This percentage should be very high. Discussion and review of provider patient populations should take place if it is not.

IIS-based coverage assessment – IQIP requires consultants to report coverage data for all providers for which electronic data are available (that is, IIS or EHR data). Chart pulls are optional if electronic data are not available. EHR-based assessments are extremely uncommon, so this number is expected to be at or near 100%, except in the few jurisdictions not yet able to perform IIS-based assessments.

Coverage not assessed (no electronic data/no chart pull) – IQIP requires consultants to report coverage data for all providers for which electronic data are available (that is, IIS or EHR data). Chart pulls are optional, however, if electronic data are not available for assessment. This number is expected to be at or near 0%, except in the few jurisdictions not yet able to perform IIS-based assessments.

Prescriber present at site visit – IQIP consultants should encourage participation by provider staff with influence on decisions involving provider vaccination workflows and policies during IQIP site visits, as well as during check-in and follow-up calls. This means participation by not only medical assistants, but by nurses, office managers, and prescribers, as well. This measure focuses on the prescribers, which typically include physicians, nurse practitioners, and physician assistants. The higher this number, the better. Effort should be made to review and discuss the awardee's approach toward IQIP site visits if this number is low.

Average number of completed site visits per consultant – Total number of completed site visits divided by the distinct count of IQIP consultants with at least one completed site visit.



Appendix J: IQIP Performance Metrics Reporting Guidance

Beginning with **Project Year Five (PY5)**, **July 1**, **2023** – **June 30**, **2024**, awardees will be required to set targets, describe relevant IQIP program activities, and measure progress on metrics selected by CDC as outlined in the CDC IQIP Program Operations Guide. Targets for the selected metrics and the activities your program will perform during PY5 that will help you meet each target will be submitted along with cooperative agreement applications. Performance metrics will be submitted with mid-year and end-of-year progress reports and action plans to address those below established targets. This document guides awardees in fulfilling the reporting requirement.

Awardees should note that these metrics were not developed to measure program performance for every relevant IQIP program activity associated with its associated project year. Rather, they were designed to measure program performance for IQIP program activities performed from July 1, 2023, through June 30, 2024. This budget-year approach accurately measures program performance against CDC requirements while simplifying awardee reporting.

The required performance metrics are listed below. Detailed descriptions of the metrics and calculations are posted in the IQIP Library in the ISD Awardee SharePoint portal and included as Appendix M in the 2023-2024 Immunization Program Operations Manual.

IIS-Based Coverage Assessment	Among IQIP providers with PY5 requirements met, the percentage with
	initial coverage assessed using IIS data.
2-Month Check-ins	Among IQIP providers with PY5 requirements met, the percentage of
	expected 2-month check-ins completed 1–3 months after the site visit.
6-Month Check-ins	Among IQIP providers with PY5 requirements met, the percentage of
	expected 6-month check-ins completed 5–7 months after the site visit.
12-Month Follow-ups	Among IQIP providers with PY4 requirements met the percentage of
	expected 12-month check-ins completed 11–13 months after the site
	visit.

Reporting Process

PY5 targets are awardee-developed and should be submitted, along with the activities your program will perform during PY5 that will help you meet each target, in the IQIP Awardee Performance Metrics Tool in REDCap by the PY5 cooperative agreement application due date.

Awardee metrics for the mid-year (July 1, 2023 – December 31, 2023) and end-of-year (July 1 – June 30, 2024) reporting periods can be retrieved from the Metrics page in their PY4 and PY5 Power BI Awardee IQIP Dashboards. After ten days, to allow reporting of data for PY5 site visits and check-ins and PY4 follow-ups performed through the last day of the reporting period to the IQIP Database, CDC will take a snapshot of each awardee's PY4 and PY5 metrics and post the metrics for each awardee on their respective dashboards. Mid-year metric values will be posted by January 11, 2024, and end-of-year metric values will be posted by July 11, 2024. Awardees will then assess their performance, develop action plans to improve measures that are below es-

tablished targets and enter into the PY5 IQIP Awardee Performance Metrics Tool in CDC REDCap by the established respective deadlines for mid-year and end-of-year cooperative agreement progress reports.

Reporting Schedule

	Report #1 Targets	Report #2 Mid-Year Report and	Report #3 End-of-Year Report and
	laigets	Action Plan	Action Plan
Reporting Period	N/A	7/1/2023 – 12/31/2023	7/1/2023 – 6/30/2024
Last Day for Data Entry into IQIP Database	N/A	1/10/2024	7/10/2024
Due Date	Submission deadline of PY5 cooperative agreement application (Late March/Early April, exact	Submission deadline for PY5 mid-year progress report (~March 2024, exact date	Submission deadline of PY5 end-of-year progress report (~September 2024, exact
	date TBD)	TBD)	date TBD)

IQIP Awardee Performance Metrics Tool Access and Data Collection

Awardee staff with current access to the Power BI Awardee IQIP Dashboards will also be given access to the IQIP Awardee Performance Metrics Tool, including program managers, IQIP coordinators, CDC field assignees, and other people who have a monitoring/supervisory role at the awardee level. Awardee staff who do not have access to REDCap but will be responsible for entering data into the IQIP Awardee Performance Metrics Tool should contact their project officer to request REDCap access. Any other questions should be directed to IQIP@cdc.gov.

Instructions for Accessing the IQIP Awardee Performance Metrics Tool

- 1. Login to REDCap using http://sams.cdc.gov. Either link will take you to the CDC Secure Access Management Services (SAMS) Login Page. [Some users (e.g., CDC field assignees) will log in using the "AMS Login" option in SAMS.]
- 2. In **Choose a Login option**, navigate to the **External Partners** section, and under **SAMS Credentials**, enter your SAMS Username and Password, and click the **Login** button.
- 3. Upon SAMS authentication, you can access REDCap from the list of available SAMS applications.
- 4. To access the metrics reporting tool once in REDCap, click the **My Projects** link on the menu bar and select the **IQIP Awardee Performance Metrics Tool** project.
- 5. In the left-hand panel of the screen, click on **Record Status Dashboard**. From there, click on your jurisdiction's report to begin entering data.

Appendix K: IQIP Resources Mentioned in this Guide – Location and Use

ISD Awardee SharePoint Portal - +

IQIP Database File Repository – ◆

IQIP Resources Toolkit – 🔺

CDC's Website — • Other Website — •

Document/System	Location	Awardee Use	Provider Use
ABOUT THIS GUIDE			
Summary of IQIP Program Requirements (Appendix A)	+	х	
Navigating the IQIP Library in the ISD Awardees SharePoint Portal (Appendix B)	+	х	
"Provider Quality Improvement" chapter of CDC's Immunization Program Operations Manual (IPOM)	+	х	
PROVIDER-LEVEL IMMUNIZATION QUALITY IMPROVEMENT: BACKGROUND AND	OVERVIEW		
National Vaccine Advisory Committee (NVAC2) https://www.hhs.gov/vaccines/nvac/index.html	•	x	x
The Guide to Community Preventive Services (Community Guide) https://www.thecommunityguide.org/topic/vaccination	•	х	х
Advisory Committee on Immunization Practices' (ACIP) Recommended Child and Adolescent Immunization Schedule https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html	+ •	х	х
IQIP Timeline Examples (Appendix C)	_	х	
Updated Tele-IQIP Guidance (January 2023)	_	х	
Immunization Information Systems (IIS) Data Quality Blueprint https://www.cdc.gov/vaccines/programs/iis/downloads/Data-Quality-Blue- print-508.pdf	•	х	
Immunization Information Systems (IIS) Dashboard https://wwwn.cdc.gov/IISDashboard/Query.aspx	•	х	
MODULE 1: PROVIDER SITE SELECTION			
Number of IQIP Site Visits Required by Awardee	+ +	x	
PEAR Provider Type Definitions (Appendix D)	+	х	
CDC/ATSDR Social Vulnerability Index https://www.atsdr.cdc.gov/placeandhealth/svi/index.html	A	х	
What is Health Equity https://www.cdc.gov/healthequity/whatis/index.html	•	х	

MODULE 2: ASSESSMENT REPORTS			
CoCASA (Comprehensive Clinic Assessment Software Application) https://www.cdc.gov/vaccines/programs/cocasa/index.html	•	х	х
Health Insurance Portability and Accountability Act (HIPAA) https://aspe.hhs.gov/report/health-insurance-portability-and-accountability-act-1996	•	х	×
Morbidity and Mortality Weekly Report: HIPAA Privacy Rule and Public Health Guid- ance from CDC and the U.S. Department of Health and Human Services https://www.cdc.gov/mmwr/pdf/other/m2e411.pdf	•	х	x
The American Immunization Registry Association (AIRA) Guidance on Managing Patient Active/Inactive Status (PAIS) https://repository.immregistries.org/resource/management-of-patient-sta-tus-in-immunization-information-systems/	A	Х	х
The American Immunization Registry Association (AIRA) AFIX-IIS Integration Operational and Technical Guidance for Implementing IIS-Based Coverage Assessment – Phase I and Phase II Phase I: https://repository.immregistries.org/resource/afix-iis-integration-operational-and-technical-guidance-for-implementing-iis-based-coverage-assessme/	A	x	х
COVID-19 Vaccination: Birth - 18 Years Immunization Schedule - Healthcare Providers https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.htm-l#note-covid-19	•	x	х
Meningococcal Serogroup B Vaccination: Birth - 18 Years Immunization Schedule - Healthcare Providers https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.htm-l#note-mening-b	•	х	х
Interpretation of IQIP Coverage Data (Appendix E)	A •	x	
MODULE 3: DATA COLLECTION AND REPORTING			
IQIP Database User Guide	+ •	Х	
IQIP Consultant Training Packet – Session 3: IQIP Database	+	х	
IQIP Database (REDCap) https://rdcp.cdc.gov or https://sams.cdc.gov	•	Х	
IQIP Database Tutorial Videos https://www2.cdc.gov/vaccines/ed/iqip/	+ +	х	
MODULE 4: IQIP CORE STRATEGIES			
Overview of IQIP Core Strategies	A •	×	
Vaccinate with Confidence https://www.cdc.gov/vaccines/partners/vaccinate-with-confidence.html	•	х	х

Foster Support for Vaccination in Your Practice			<u> </u>
https://www.cdc.gov/vaccines/hcp/conversations/your-practice.html	•	Х	Х
IQIP Strategies https://www.cdc.gov/vaccines/programs/iqip/strategies.html	•	X	x
Health Equity Guiding Principles for Inclusive Communication			
https://www.cdc.gov/healthcommunication/Health_Equity.html	•	X	Х
IQIP Resources Index	A •	X	
MODULE 5: PRE-IQIP VISIT ACTIVITIES			
IQIP Preparation Checklists	A •	Х	
Tips for Conducting Tele-IQIP	A •	X	
The Role of the Immunization Champion	A •	Х	
Tips for Reviewing Vaccination Policies	A •	Х	
IQIP Site Visit Confirmation Letter	A •	X	
IQIP At-A-Glance for Providers	A •	Х	х
IQIP Site Visit + Coverage Goals Form	A •	х	
MODULE 6: SITE VISIT			
IQIP Site Visit Process Diagram (Appendix F)	A •	Х	
IQIP Site Visit + Coverage Goals Form	A •	Х	
Vaccination Workflow Assessment Tool (Appendix G)	A •	Х	
The Role of an Immunization Champion	A •	Х	
Tips for Reviewing Vaccination Policies	A •	x	
AFIX-IIS Integration Operational and Technical Guidance for Implementing IIS-Based Coverage Assessment – Phase II https://repository.immregistries.org/files/resources/5835adc2ad7bc/afix-iis_integration_operational_and_technical_guidance_for_implementing_iis-based_coverage_assessm.pdf	.	х	
Overview of IQIP Core Strategies	A •	x	
Action Items Overview	A •	Х	
Action Items Overview	A •	Х	
Strategy Implementation Plan Form	A •	Х	
MODULE 7: 2-MONTH AND 6-MONTH CHECK-INS			

	 		
IQIP Preparation Checklist	A •	Х	
Strategy Implementation Plan	A •	Х	
MODULE 8: 12-MONTH FOLLOW-UP			
Interpretation of IQIP Coverage Data (Appendix E)	A •	Х	
IQIP Preparation Checklist	A •	Х	
MODULE 9: CONDUCTING IQIP WITH MULTISITE PROVIDERS			
Tips for Conducting IQIP with Multisite Providers	A •	Х	
MODULE 10: ALTERNATE QI PROGRAM CREDIT			
Alternate QI Submission Form	++	Х	
MODULE 11: IQIP PROGRAM MANAGEMENT			
IQIP Consultant Training Plan – Sample (Appendix H)	+	х	
IQIP Custom Strategy Submission Form	+	Х	
Educational and Promotional Resources for Partners https://www.cdc.gov/vaccines/partners/	•	х	
Power BI Awardee IQIP Dashboards – Glossary of Terms (Appendix I)		Х	
	T	^	
Monitoring Data in the IQIP Database	A +	X	
,	A •		
Monitoring Data in the IQIP Database	A + A +	Х	
Monitoring Data in the IQIP Database IQIP Database User Guide	A + + + + + + + + + + + + + + + + + + +	x x	
Monitoring Data in the IQIP Database IQIP Database User Guide IQIP Performance Metrics and Monitoring Resources (Appendix J)	+ +	x x x	
Monitoring Data in the IQIP Database IQIP Database User Guide IQIP Performance Metrics and Monitoring Resources (Appendix J) Power BI Awardee IQIP Dashboards	+ •	x x x	