Operations Guide

July 1, 2019 – June 30, 2020
Version 1.1

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About This Guide

The 2019 Immunization Quality Improvement for Providers (IQIP) Operations Guide:

- Valid for the July 1, 2019 through June 30, 2020 budget period
- Reflects current IQIP program policies and processes
- 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 efficiently and effectively

Overview

The Immunization Quality Improvement for Providers (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 to and further explains the required activities included in the "Provider Quality Improvement" chapter of CDC's Immunization Program Operations Manual (IPOM).

As implementers of the IQIP program, awardees are required to ensure their IQIP operations, protocols, site visits, check-ins, follow-ups, and strategies are compliant with the standards outlined in this guide. This guide should serve as the primary IQIP reference for awardees that are developing or updating policies and procedures specific to their immunization program.

CDC developed 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.

A summary of all IQIP requirements is provided in Appendix A. 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 lists and vaccination coverage reports.
- **Awardee**, **program**, and **IQIP staff** 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.
- **Immunization information systems** (**IISs**) are confidential, population-based, computerized databases that record all vaccine doses administered by participating providers to persons residing within a given geopolitical area.
- **IQIP candidate providers** are the subset of VFC-enrolled providers most likely to offer routine immunization services for their patients, based on their "VFC provider type" classification in the Provider Education, Assessment, and Reporting System (PEAR). These providers are most likely to benefit from the implementation of IQIP strategies, which focus on routine immunization workflow. CDC calculates the number of required IQIP visits from this subset instead of the total number of VFC-enrolled providers. Awardees may still conduct an IQIP visit with a provider not defined as an IQIP candidate if the awardee determines the provider offers routine immunization services.
- **IQIP coordinator** refers to an individual responsible for managing an awardee's IQIP program.
- **IQIP consultant** or **consultant** refers to an individual who conducts IQIP visits, check-ins, or follow-ups, or communicates with provider staff regarding IQIP efforts on behalf of an immunization program.
- **Provider** is used inclusively in this guide to describe both health care providers and provider staff who offer immunization services through the VFC program to patients age 0–18 years.
- **Provider site** refers to a specific VFC provider location.
- **Strategy implementation plan (SIP)** represents the compiled list of action items agreed upon for each selected strategy during the site visit, check-ins, and follow-up.
- **Vaccination coverage** refers to the estimated percentage of people 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 IQIP directory in CDC's Immunization Services Division (ISD) Awardees SharePoint portal. Awardees may request access for both through their assigned ISD Program Operations Branch (POB) project officer.

Future Changes to the Guide

Once the IQIP Operations Guide is published, modules 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 to the Awardees SharePoint portal.

Questions

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

Provider-Level Immunization Quality Improvement: Background and Overview

History of Provider-Level Coverage Assessment and Feedback

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 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. In the same year, the Senate instructed CDC to "ensure that all states receiving Section 317 immunization infrastructure/operations grant funds conduct annual provider assessments in all public clinics using a CDC-approved methodology,"[1] which later evolved into a program known as "Assessment, Feedback, Incentives, and eXchange" (AFIX). The assessment visits were implemented in public-sector clinics to improve immunization practices and vaccination coverage.

In 1999, the National Vaccine Advisory Committee (NVAC)[2] 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 and local 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).[3] 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.

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.

[1] United States Cong. Senate Committee on Appropriations. Department of Labor, Health and Human Services, and Education and Related Agencies Appropriation Bill, 1995. Printed 20 July 1994. 103rd Cong., 2nd sess., Rpt. 103–318:57, Washington, DC: Government Printing Office, 1994.

[2] https://www.hhs.gov/nvpo/nvac/index.html

[3] https://www.thecommunityguide.org/topic/vaccination

IQIP Program

Quality improvement 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.

Barriers to Immunization Quality Improvement

- Competing cooperative-agreement-related priorities
- Diverse personalities and skill sets among consultants
- Varying levels of engagement among providers
- An increasingly complex immunization schedule
- Inadequate immunization information infrastructure
- Ability to access and use existing data
- Abbreviated time to spend with providers
- Provider-reported QI fatigue or administrative burden

IQIP is an immunization QI program for health care providers enrolled in CDC's VFC program. **The purpose of IQIP is to promote and support the implementation of provider-level quality improvement strategies.** These strategies are designed to increase vaccine uptake among child and adolescent patients in adherence to the Advisory Committee on Immunization Practices' (ACIP) recommended routine immunization schedule.[4] IQIP is specifically designed to accommodate the unique barriers that face immunization program awardees in delivering quality improvement services to providers.

IQIP Strategies

- Schedule the next immunization visit before the patient leaves the provider site.
- Leverage immunization information system (IIS) functionality to improve immunization practice.*
- Give a strong vaccine recommendation (include emphasis on HPV vaccine if the provider has adolescent patients).
- Optional custom strategy to be determined by awardee (not required)

**Use of IIS data is an important component of the IQIP process even if this strategy is not selected.*

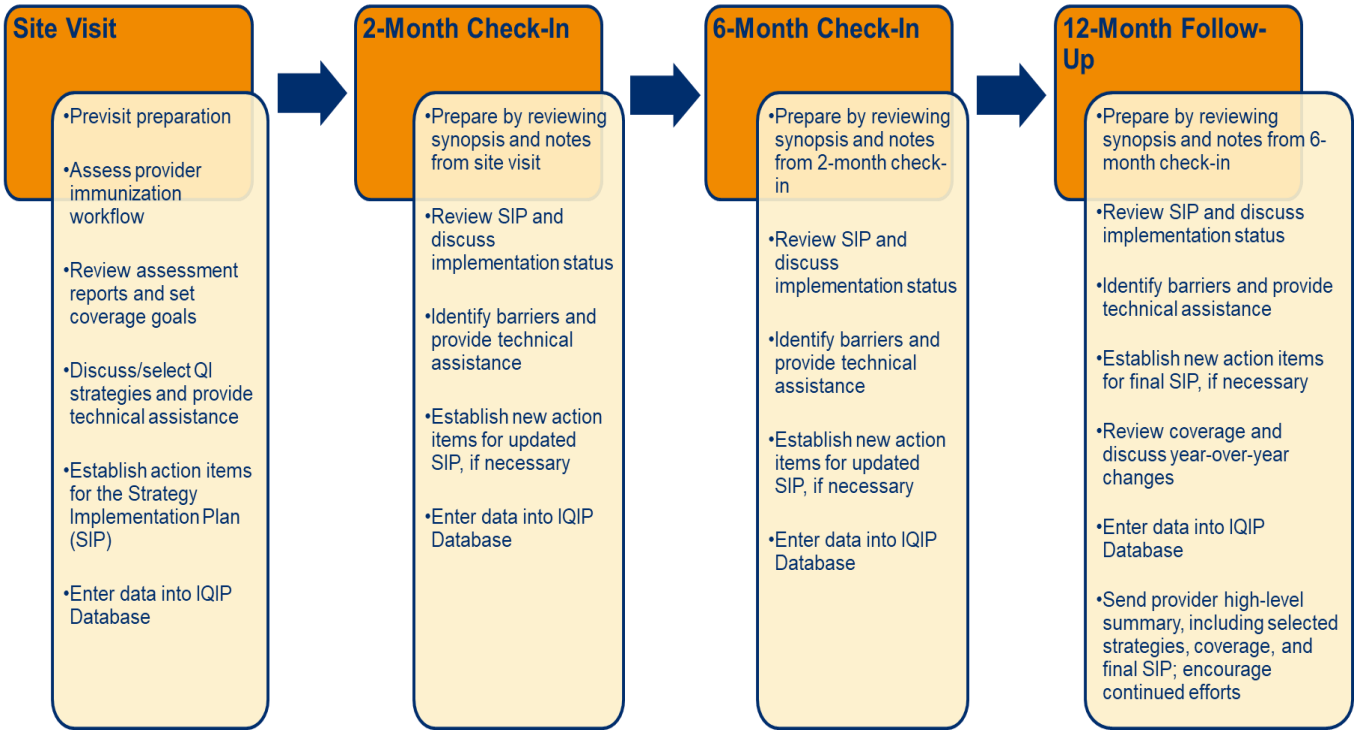
IQIP serves to assist and support health care providers by identifying opportunities to improve vaccine uptake, determining options for improving immunization delivery practices, and ensuring providers are:

- Aware of and knowledgeable about their vaccination coverage and missed opportunities to vaccinate
- Motivated to try new immunization service delivery strategies and incorporate 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 EHR to improve services and coverage

[4] https://www.cdc.gov/vaccines/schedules/index.html

Using the IQIP process and available data, awardees assess immunization delivery practices of selected VFC providers and collaborate with them to identify strategies that will enhance their immunization workflow to improve vaccine uptake. Vaccination coverage is measured at or near the time of an initial contact (site visit) to establish baseline performance and again one year later to evaluate progress. Technical assistance and support are given via telephone calls at 2- and 6-month intervals to aid providers in staying on course with their strategy implementation plans (SIPs). At the end of 12 months, a final discussion of SIP progress and sustainability of practice changes occurs.

IQIP Process



Appendix B demonstrates how the 12-month IQIP cycle spans multiple project years.

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. The staffing structure of an IQIP program will vary by awardee due to differences in budgets and program size and for other reasons. Ideally, the positions providing support to an awardee IQIP program include:

Immunization program manager	The immunization program manager oversees CDC-funded programmatic services for childhood, adolescent, and adult immunization at the state or local health department. He/she manages the immunization program's funding, staff, disease control activities, communication, and reporting. Provider quality improvement encompasses the IQIP program and is a focus area within the program manager's scope of responsibility.
IQIP coordinator	The IQIP coordinator manages the awardee's IQIP program. Responsibilities may include: • Developing and maintaining written awardee operational procedures that are in alignment with the CDC IQIP Operations Guide • Developing and implementing monitoring and evaluation procedures to ensure IQIP program conformity and data integrity • Training awardee IQIP staff upon hire and annually • Directing the IQIP consultants' work to implement quality improvement processes according to current CDC and awardee-specific IQIP requirements and operational standards • Working with the awardee's IIS manager to support IQIP program activities using the IIS, as well as developing activities related to the core IQIP strategy to leverage IIS functionality to improve immunization practice • Serving as the awardee's primary point of contact with CDC IQIP staff • Participating on behalf of the awardee in CDC-led IQIP calls and webinars
IQIP consultants	Consultants are individuals who work with VFC providers on behalf of the IQIP program. Responsibilities include: • Conducting site visits with providers to observe immunization workflow within the facility, identifying opportunities for process improvement, and providing technical assistance and other resources to develop a SIP tailored to the individual provider • Generating (or working with the provider to generate) reports of provider-level vaccination coverage data for baseline and follow-up measurements of progress • Collaborating with provider staff through additional telephone check-ins to provide support for the implementation of QI strategies and related activities • Conducting 12-month follow-ups to assess implementation progress for the selected QI strategies
IIS manager or coordinator	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 IQIP goals: • 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 • Delivering training to various stakeholders, such as IQIP coordinators and providers • Supporting data needs for IQIP, including the integration of vaccination coverage reporting into IIS functionality.

Module 1 – Provider Site Selection

Overview

Requirement: Awardees are required to initiate IQIP quality improvement activities with 25% of CDC-defined IQIP candidate VFC providers within their jurisdiction as well as 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 VFC providers annually as well as continue other IQIP activities with providers already engaged in the process. CDC determines the number of required IQIP visits using each awardee's VFC provider data in PEAR. CDC has identified PEAR provider types that are most likely to offer routine pediatric immunization services and excludes the remaining provider types from the denominator when calculating an awardee's 25% target. Awardees may still conduct IQIP visits with providers from any PEAR provider type if they choose, so long as the provider offers routine pediatric immunization services.

PEAR Provider Types (✓ indicates provider types included when calculating number of required IQIP visits)	
✓ Community/migrant/rural health	Pharmacy
Drug treatment facility	✓ School-based clinic (permanent clinic location)
Family planning services (non-health department)	✓ Solo/group/HMO practice (pediatrician, primary care, etc.)
✓ Health department clinic (state/local)	STD/HIV clinic (non-health department)
Hospital	Teen health center (non-health department)
✓ Juvenile detention center/correctional facility	✓ Tribal/Indian Health Services clinic
Mass vaccination organization (non-health department)	✓ Other
OB/GYN	

Awardees have flexibility in determining the site selection method and criteria based on their program priorities and judgment (*see Table: Example provider selection and prioritization criteria for IQIP*). Awardees also have the latitude to change their selection and prioritization criteria from project year to project year to best support program priorities. Awardees may choose to combine selection criteria to align with their program priorities.

Table: Example provider selection and prioritization criteria for IQIP

Selection Criteria	Comment
Providers with large patient populations	Maximizes the number of patients who may benefit from IQIP strategy implementation
Provider location	May focus on providers in areas with coverage disparities
*Vaccination coverage**	May base selection on coverage for a single antigen or series, but should measure coverage for *all* IQIP candidate providers at approximately the same selection time
Time since last QI visit	Offers immunization QI support to providers who have not been visited by the program in recent project years
Each provider receives a visit every four years	Ensures visits to all providers within a jurisdiction and creates an opportunity to learn from high-performing providers
Convenience†	May be considered due to limited resources but should never be the sole criterion
Other	Additional criteria that awardees believe address the specific needs and challenges of their jurisdiction

**If ranking provider sites by coverage for a given antigen 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.*

†CDC encourages awardees to consider which criteria best apply to their jurisdiction, but cautions awardees against using only convenience as a priority during site selection. Visiting only local public health clinics or nearby provider sites due to easier access may result in neglect of disparate populations or providers in need of technical assistance.

Module 2 – Assessment Reports

Overview

IQIP assessment reports help awardees and providers monitor, evaluate, and select strategies to improve provider performance in vaccinating pediatric patients on time and in adherence to the ACIP-recommended routine immunization schedule (*see Table: Benefits of IQIP assessment reports*). IQIP assessment reports include but are not limited to:

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

Table: Benefits of IQIP assessment reports

Benefit	Report Type	
	Vaccination Coverage (Mandatory)	Patient Lists (Recommended)
Identify baseline coverage	✓	
Select realistic coverage goals	✓	
Examine records of individual patients as examples opportunities to improve performance		✓
Inform the development/delivery of technical assistance for the strategies selected	✓	✓
Evaluate year-over-year change in coverage	✓	

IIS Data Selection and Management

IISs support immunization programs in delivering effective and efficient immunization services. By reviewing IIS-based provider-level coverage with the provider, IQIP consultants can assist providers in monitoring and supporting vaccine uptake among children and adolescents. Every IIS is unique, so it is important for awardees to have a general knowledge of their IIS's capability prior to a site visit. Even if a provider chooses to generate coverage or patient lists from their EHR, understanding the pros and cons of available immunization data resources can help to guide management and assessment report discussions. IQIP coordinators are encouraged to work with the IIS staff to ensure IIS reports are accessible for providers.

CDC recommends vaccination coverage assessments of the provider's active patients. Active patients are those individuals for whom the provider has responsibility for vaccinating. The American Immunization Registry Association (AIRA) provides guidance on managing patient active/inactive status[5] (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. While, in the past, some awardees chose to address this potential complication by conducting previsit assessments to clarify the coverage assessment denominator, this approach creates burden and may hinder buy-in for the IQIP process among provider staff. CDC recommends awardees do not conduct this step prior to an IQIP visit. CDC also recommends awardees:

- 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, as this may deter their desire to participate in IQIP.

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. CDC recommends awardees:

- 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.

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 state or federal regulations such as the Health Insurance Portability and Accountability Act (HIPAA)*. Additionally, CDC's *Morbidity and Mortality Weekly Report* (MMWR) has published information on the privacy rule.†

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 to sign. Program monitoring can assist in ensuring that IQIP consultants and other staff are 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

[5] https://repository.immregistries.org/files/resources/5835adc2dad8d/mirow_pais_full_guide.pdf

- Encourage the provider to select the "leverage IIS functionality to improve immunization practice" IQIP strategy, and incorporate routine data maintenance and periodic self-assessments of coverage into the provider's SIP.

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 7 – 12 Month Follow-Up.

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 any pediatric cohort (childhood and/or adolescent) in which the provider has any active patients and for which IIS or electronic health record (EHR) data are available. CDC discourages assessments based on manual chart review (*see Module 2 – Assessment Reports, Manual Chart Review Data*). The recommended age cohort for childhood assessments is 24–35 months and for adolescent assessments is 13 years (*see Table: Recommended parameters for IQIP coverage assessments by age cohort*). These parameters best facilitate evaluation of on-time immunization performance according to the ACIP-recommended routine schedule.

Table: Recommended parameters for IQIP coverage assessments by age cohort

Recommended Parameter*	Assessment Cohort		
	Childhood	Adolescent	Older Teen†
Patient Age	24–35 months	13 years	17 years
Evaluated at/Compliance by	2nd birthday	13th birthday	17th birthday
"As of" Date	Assessment date	Assessment date	Assessment date

**Variations are acceptable if assessment software cannot accommodate the recommended parameter*
†Optional IQIP assessment cohort

CDC requires assessment of eight childhood and three adolescent coverage levels. Awardees may also assess provider immunization performance for patients outside the recommended IQIP adolescent age cohort for older teens, if desired (*see Table: Coverage to report by age 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	1 HPV UTD HepB 2 MMR 2 VAR 2 HepA UTD IPV UTD Influenza	1 Tdap 2 MenACWY UTD HPV 1 MenB† UTD Influenza

*****_Optional IQIP assessment cohort_

†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.html#note-mening-b for more information.

Assessment reports should include all active patients in the cohorts assessed. For IQIP purposes, there is no minimum threshold for provider size. All providers benefit from periodic quantitative performance assessments, no matter how large or small their patient population.
Awardees may deviate from recommended 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. Awardees should always use the same parameters for both the initial and the 12-month follow-up assessments.

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

Assessment Data Sources

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 is appropriate and available for assessment.

IIS Data

If providers are able to conduct coverage assessments and are comfortable generating assessment reports using the IIS or software that integrates with the IIS, CDC recommends provider staff perform their own IQIP coverage assessments. If the provider has the technology available but staff is not comfortable generating IIS-based assessment reports, CDC recommends IQIP consultants use the site visit as a teaching opportunity to perform the assessments with the provider staff. Working with providers to improve their familiarity and use of IIS functionality fulfills the core IQIP strategy, "leverage IIS functionality to improve immunization practice." The goal is for providers to monitor coverage and patient lists independently at regularly scheduled intervals rather than doing so only when selected for an IQIP visit.

IQIP consultants should run the assessment reports in advance if the provider does not have the technology available to generate IIS-based coverage assessments or if the consultant wishes to review assessment reports to prepare for discussions with the provider. These assessments may be performed using the IIS, software that integrates with the IIS, or CoCASA.

Electronic Health Record (EHR) Data

EHR-based calculations of coverage may be used for IQIP coverage assessments when IIS data are unavailable or 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 of generating EHR-based reports 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 in some situations IIS or EHR data are not available. In those circumstances, an awardee 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 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.

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. The reports should be run during or shortly before (preferably no earlier than one week before) the site visit or follow-up. If this is not possible, 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 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 of the following criteria are met:

- Completion of assessment reports does not require the IQIP consultant to visit the provider site.
- The burden on provider and awardee staff for completing coverage assessments is minimal (i.e., assessments are completed using the IIS, software that integrates with the IIS, or the provider's EHR).
- Assessments are completed 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 completed by the provider staff only.

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

IQIP consultants record provider-level data and notes in the IQIP Database at each step of the IQIP cycle. The database is designed to:

- Facilitate the delivery of technical assistance customized to each provider through the use of narrative data entry fields for real-time review of provider data during check-ins and follow-up.
- Autogenerate editable reports to share with providers (if desired).
- Provide a dashboard to monitor visit status throughout the IQIP cycle.
- Simplify retrieval of data and reports for review and analysis.
- Help with scheduling and planning by offering calendar functionality.
- Reduce unnecessary data entry while allowing more detailed, narrative documentation for future reference.
- Offer simple navigation and data management.
- Record data for providers engaged in either IQIP or an alternative QI program (*see Module 9 – Alternative QI Program Credit*).

IQIP Database User Guide

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.

Obtaining Access to the IQIP Database

IQIP coordinators or program managers 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://rdcp.cdc.gov or 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."** 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.

Technical Support

IQIP staff with questions about the IQIP Database should first consult the IQIP Database User Guide, the IQIP FAQ document, and the series of IQIP instructional videos, all of which will be available at 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 – Pre-IQIP Visit Activities

Overview

The IQIP site visit provides consultants with the opportunity to share and discuss the provider's initial assessment reports and to collaborate with the provider to review and select quality improvement strategies.

Awardees will find CDC's pre-site visit checklist for consultants in Appendix C. Awardees may also wish to develop their own tools to assist with consultant preparation.

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

- How and when to initiate contact with the provider
- What content to include in the communication sent to the provider prior to the visit
- Which, if any, assessment reports should be run prior to the visit
- What additional information is needed prior to the visit
- What materials to bring to the visit
- What materials to leave behind with the provider after the visit is completed

Consultants should confirm that each provider site is in the IQIP Database prior to the site visit to support timely entry of data and notes. If any provider is not represented in the database, contact IQIP@cdc.gov.

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

Arranging a Site Visit

Scheduling procedures should include the following:

- Identify a contact person at the provider site to discuss logistics and confirm their job title, e-mail address, and phone number.
- Explain the purpose and goals of participation in IQIP. This is an appropriate time to determine if the provider is actively engaged in an alternate immunization QI program. If so, the consultant may notify the IQIP coordinator to determine if the QI program should be submitted to CDC for alternate QI program credit for the provider (*see Module 9 – Alternative QI Program Credit*).
- Discuss with the contact person the estimated amount of time needed for the site visit.
- Discuss with the contact person the availability of provider staff who have a role in immunization service delivery (e.g., immunization champion, front desk staff, medical assistants, nurses, physicians, QI coordinator, etc.). Arrange a mutually convenient date and time for the site visit.

- Confirm provider information, site address, and location.
- Outline any consultant on-site needs (e.g., meeting space, work station, or power source).
- Send a confirmation letter or e-mail (*see template in Appendix D*) to the contact person that includes:
  - Date and time of site visit
  - The benefits of implementing immunization QI at the provider level
  - What to expect during the visit
  - IQIP consultant contact information
- Confirm the site visit two to three working days before the scheduled appointment.
- Confirm the cohorts (i.e., child and/or adolescent) served by the provider.

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 site. Types of helpful information include:

- General knowledge about the patient population served by the provider (race/ethnicity, socioeconomic status, insurance status, English proficiency, and other languages spoken)
- Cohorts (i.e., child and/or adolescent) served by the provider
- Staffing information, including immunization champion, lead physician, and staff with decision-making authority
- Data and information from previous quality improvement visits (i.e., AFIX)
- IIS reporting method and status
- Assessment reports (if generated prior to the site visit, see *Module 2 – Assessment Reports*)

Consultants should also prepare and collect any materials needed to support discussions with the provider. These types of materials include:

- Tool for documenting IQIP site visit information (laptop with internet access or hard copy IQIP Site Visit Form, *Appendix E*)
- Awardee-specific IQIP Operations Guide and other awardee-developed materials
- IQIP resource toolkit for consultants (including but not limited to material related to QI strategies, samples of parent-focused educational material), which are located on the ISD Awardees SharePoint portal
- Assessment reports (if applicable)

Module 5 – Site Visit

Site Visit

During the IQIP site visit, the consultant and provider staff identify opportunities to improve the provider's performance in immunization delivery. This is accomplished through observation and discussion of provider immunization service workflow and through review of assessment reports (i.e., initial vaccination coverage data and patient lists). The consultant and provider staff 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 (*also see Appendix M*):

Immunization Champion

The immunization champion takes the lead in promoting and improving immunization service delivery at the provider site. The consultant should request the provider's immunization champion and QI coordinator attend the visit if the provider has staff members serving in one or both of these roles. If these or comparable roles are staffed, the consultant should collaborate with them throughout the IQIP cycle to monitor and encourage completion of the action items in the SIP. If they are not staffed, the consultant should encourage the provider to designate staff to fill at least one of these roles.

1. Initiate site visit with introductions, IQIP overview, and purpose of the visit
2. Review and assess provider immunization workflow
3. Review assessment reports to identify opportunities for improvement
4. Discuss and select IQIP strategies
5. Develop Strategy Implementation Plan
6. Wrap up by discussing next steps and establishing check-in and follow-up dates

Note-Taking and Data Collection during 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 site.
- Print a blank copy of the CDC IQIP Site Visit Form (*see Appendix E*). This form is available for download in the File Repository of the IQIP Database and in the ISD Awardees SharePoint portal.
- Print a blank copy of an awardee-designed IQIP site visit form. 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.

Requirement: Documentation of the site visit in the IQIP Database is required. (If opting to use a paper form, the information must be entered into the IQIP Database within 10 business days after the site visit.)

Assessing Provider Immunization Workflow

Begin the site visit with a discussion or observation of the provider's complete immunization workflow. When site visits begin with a review of coverage, it can be difficult to shift the focus of the visit to technical assistance. The consultant should ask the provider to describe every step of their immunization workflow, from the moment the patient walks in the door through the administration of vaccines, documentation in the patient's record, and scheduling of the patient's next immunization visit (see *Appendix F*). This sets the tone of focusing on the provider process during the site visit. As the provider describes their immunization workflow, the consultant should pay close attention to how the provider's current processes align with the IQIP strategies, making note of specific aspects to explore in more detail when discussing each IQIP strategy later in the visit.

Requirement: Awardees must begin the site visit by assessing the provider's immunization workflow.

Reviewing Assessment Reports with Providers

Discussion of assessment reports follows review of the provider's workflow. The benefits of and specifications for assessment reports (i.e., coverage and patient lists) are described in the tables in Module 2 – Assessment Reports. The review of assessment reports during the site visit is intended to help customize the IQIP process for the benefit of the individual provider. The discussion should be framed as an opportunity to identify how the provider can adapt their workflow using IQIP strategies to increase vaccine uptake over the next 12 months.

Vaccination Coverage

Initial coverage data provide a baseline indicator of the provider's on-time immunization performance. Nearly all providers have room to increase coverage. Baseline coverage for some doses may be lower than others. Recognition and discussion of immunization performance gaps during the site visit can help the IQIP consultant and provider staff tailor technical assistance and action items to areas of greatest need.

Patient Lists

Patient lists demonstrate potential lapses in immunization 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 list and offer customized technical assistance to the provider aimed at reducing the types of missed opportunities that have occurred

For most awardees, CDC recommends patient lists be used as described above—as demonstrations and teaching opportunities. As an intervention measure, some awardees generate patient 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 lists on their own at regularly scheduled intervals. Helping the provider to reach this point can be incorporated into the SIP when selecting the "leverage IIS functionality to support immunization practice" strategy.

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.

➢ Childhood Coverage Goals

The IQIP Database autogenerates a suggested 12-month coverage goal for the 4:3:1:UTD:UTD:1:UTD[6] childhood series and prepopulates it using the logic in the table, logic for suggested 12-month childhood coverage goals. The consultant and provider staff may edit this value if a different goal is preferred. Coverage goals for individual childhood doses (4 DTaP, 3 IPV, 1 MMR, etc.) may be entered manually using the logic in the table, logic for suggested 12-month childhood coverage goals 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 suggested 12-month coverage goals for the 1 Tdap, 1 MenACWY, and UTD HPV adolescent doses and prepopulates them using the logic in the table, logic for suggested 12-month old adolescent coverage goals. The IQIP consultant and provider staff may edit these values if different goals are preferred. Coverage goals for other adolescent doses (1 HPV, UTD HepB, 2 MMR, etc.) may be entered manually using the logic in the table, logic for suggested 12-month adolescent coverage goals or other logic agreed upon during the site visit.

[6] *This is the same measure used for AFIX, but AFIX referred to this series as 4:3:1:3:3:1:4. The new name reflects the way the individual antigens that make up the series are measured*

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

Discussing, Selecting, and Documenting Quality Improvement Strategies

IQIP promotes three core QI strategies and one optional awardee-developed custom QI strategy during PY1. The core QI strategies include:

1. Schedule the next immunization visit before the patient leaves the facility.
2. Leverage IIS functionality to improve immunization practice.
3. Give a strong vaccine recommendation (emphasizing HPV vaccine if the provider has adolescent patients).

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

To collaborate on which strategies are most relevant to a provider, the consultant should review the workflow assessment and jointly discuss the components that pertain to each of the IQIP strategies. This will help identify action items and target delivery of technical assistance for the SIP. As part of the discussion, the consultant and provider staff work together to summarize the baseline status of all IQIP strategies. Based on the discussion, at least two IQ strategies are selected for implementation.

Core strategy-specific resources for consultants and providers are posted at the ISD Awardees SharePoint portal.

The consultant records the workflow assessment information concisely in two fields for each strategy on the site visit page of the IQIP Database (or the paper copy of the IQIP Site Visit Form):

- *Field 1:* Summarize the strategy's current implementation status.
- *Field 2:* Summarize existing gaps/limitations and opportunities for improvement in the current implementation of the strategy

Table: IQIP strategies and examples of strategy-specific site visit activities for PY1
Three Core IQIP Strategies (CDC-Developed)
Schedule the next immunization visit before the patient leaves the facility. Example site visit activities - Develop a workflow plan to ensure no patient leaves without the next visit scheduled. - Identify all staff needed to execute the plan; assign and document roles. - Investigate steps to address software limitations that prevent scheduling visits months in advance.

Leverage IIS functionality to improve immunization practices.
Example site visit activities
- Review the IIS benefits for practice operations.
  - Review vaccines due for scheduled and unscheduled patients.
  - Calculate coverage.
  - Generate patient lists.
- Provide hands-on demonstration and training.
- Promote IIS data quality, timeliness, and completeness.
- Discuss/demonstrate management of patient status (PAIS, MOGE, etc.).

Give a strong vaccine recommendation. Example site visit activities - Include discussion of HPV vaccination if the provider has adolescent patients. - Include communication strategies to address vaccine hesitancy. - Develop a script and practice its delivery.
Optional: One Custom QI Strategy (Awardee-Developed)
Fourth QI strategy addresses local or program-specific priorities. Guidance - Develop resources and approach at the immunization program level. - Strategy should be available to present as a strategy option at all IQIP site visits jurisdiction-wide.

For each strategy the provider selects for implementation, the IQIP consultant completes two additional fields in the database:

- *Field 3:* Decribe ay techical aitace prvided fr the trategy durig the site visit (e.g., resources shared, demonstrations, role-playing, etc.).
- *Field 4:* Describe action items agreed upon for the strategy using the recommended

  format[7] for each item. Examples of action items include implementation/improvement steps for the provider and future technical assistance to be delivered by the consultant.
  - Example 1: Encourage all staff members who discuss vaccination with families to download CDC's "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: 12/1/2019).

[7] **Recommended format for each action item: "Name/description of action item (person/people responsible: target date)"**

- Example 2: Request that discussion of patient scheduling workflow be added as a standing item for the weekly staff meeting (Miguel, immunization champion: 10/14/2019).
- Example 3: Give a demo during the 2-month check-in, using screen sharing to show how to run coverage reports in the IIS (M. Hilleman, IQIP consultant: 12/1/2019).

The IQIP consultant must record a brief explanation for any strategy not selected. The provider may select strategies that have already been implemented at the time of the site visit, as long as gaps/limitations and opportunities for improvement are identified during review of the strategy's baseline implementation status recorded in Field 2.

Strategy Implementation Plan (SIP)

The action items chosen for the implementation or improvement of each selected IQIP strategy (*Field 4*) combine to form the SIP. The provider uses the SIP to guide and track QI activities following the site visit, and the consultant uses the SIP 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 SIP, scheduled and actual dates of check-ins and follow-up, and coverage (including baseline, goals, and follow-up).

The SIP 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 SIP at the 2-month check-in and again at the 6-month check-in and develops a final SIP for the 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 Synopsis page. An up-to-date IQIP synopsis (and the SIP within it) can be saved as a PDF or printed and shared with the provider after each step of the IQIP. 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 IQIP synopsis with providers (e.g., if an IQIP consultant wishes to format the SIP differently or add more detail than what is entered into the IQIP Database), an SIP form is provided in Appendix G. Awardees may develop their own summary documents to share with providers (e.g., SIP, 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 check-ins 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 Table: Scheduling guidelines for IQIP check-ins and follow-up*).

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 must enter site visit data into the IQIP Database within 10 business days after the site visit.

Consultants should send a thank you/follow-up note to the provider after the visit, and include the SIP, links to online resources, and tentative dates for the check-ins and follow-up.

ENCOURAGE PROVIDER STAFF TO COMPLETE THESE ACTION ITEMS AT THEIR NEXT STAFF MEETING:

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

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

Overview

The purpose of the 2- and 6-month check-ins is to follow up with provider staff as they work to implement the QI strategies they selected during the site visit. These calls enable consultants to identify challenges with strategy implementation, provide technical assistance, and deliver motivation and support. Check-ins are conducted by phone or webinar. **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.

Requirement: The 2- and 6-month check-ins must be conducted by phone with the optional use of webinar.

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.
- Assure the appropriate staff participates.

CDC has developed 2- and 6-month check-in checklists for consultants (*see Appendix C*) to assist in preparing for the calls. Awardees may also wish to 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 and specific facility environment and support the efficient use of time during the check-in. Helpful information can include the following:

- The provider's SIP
- Notes and data from the site visit and/or previous check-in
- Relevant information regarding VFC compliance issues that have taken place since the site visit and/or previous check-in
- Status of any technical assistance (e.g., IIS-related issues) the program agreed to provide

Assessing Coverage during Check-Ins

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, though six months is still quite early to attribute coverage change to changes in workflow. Further, if change is not substantial, it may discourage continued efforts. (Note: Consultants may teach providers to generate their own periodic coverage reports. However, this would be an action item for the "leveraging IIS functionality to improve immunization practice" IQIP strategy and would not be part of the check-in discussion.)

The 2- and 6- month check-ins are intended to be an opportunity for course correction, motivation, and technical assistance based on current strategy implementation status. If coverage is assessed at the 6-month check-in, then consultants should interpret changes in coverage in the context of other variables (e.g., seasonality, changes in denominator, or staff turnover). The 12-month follow-up will provide the opportunity to measure year-over-year coverage change and the sustained impact of the strategy implementation.

Examples of Effective Communication Techniques

Ask open-ended questions:

"Can you describe what happened when you attempted to update your scheduling procedures?"
"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:

"Are you saying that your front desk staff isn't really comfortable with the new scheduling procedures?"
"It sounds like the reports you are running include patients that aren't yours. Is that correct?"
"So, parents are still vaccine-hesitant because they don't understand the need for multiple shots in one visit?"

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

"Why do you think that is happening?"
"Why do you think this isn't working?"
"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:

"Ok, so what we came up with at first isn't working. Could we try [solution], or is there another way we can approach this?"
"What would help you that you don't currently have?"
"Do you know how this situation is handled in your company's other clinic locations?"
"I can send you a link to educational resources that address HPV vaccination myths. Do you think that would be helpful, or do you need something else?"

Additional information on effective communication is located in Appendix H.

Conducting Check-Ins

At the beginning of a check-in, assure the appropriate staff is attending and provide a brief outline of the topics that will be covered to focus the discussion. Next, review the provider's progress on implementing the selected strategies.

This discussion is also an opportunity for the consultant to assess whether or not the provider designated an immunization champion or QI coordinator to support the implementation of the QI strategies. If they do not have a designee, consultants should recommend they designate someone and provide information about the person's role in the implementation of the QI strategies.

Review Strategy Implementation Plan

If the provider completed all action items in their SIP, consultants may choose to explore the provider's experience during implementation to:

- Assess quality and accuracy of technical assistance provided.
- Assess sustainability of the implementation of the selected QI strategies.
- Determine if the provider encountered any barriers and if they implemented their QI strategies as intended.

The information the provider shares may be helpful to the IQIP coordinator and consultant when developing subsequent SIPs with provider during the remainder of the IQIP cycle.

If the provider was unable to complete any item in their SIP, the consultant should explore the reasons why to identify the barriers to completion. The consultant should then partner with the provider in troubleshooting to overcome barriers. Because IQIP emphasizes a collaborative approach, consultants should lead this discussion in a way that draws the provider into a conversation and involves them in problem-solving. Effective communication techniques include:

- Asking open-ended questions
- Practicing reflective listening
- Asking follow-up questions to identify root causes of the problems
- Soliciting ideas for overcoming barriers

Wrap-Up and Next Steps

At the end of the check-in, review the steps to be taken next. When reviewing the status of the action items in the SIP:

- Discuss the additional resources or technical assistance needed to assist the provider in reaching or maintaining full implementation of their QI strategies.
- Assist the provider in updating their SIP to reflect any changes in roles and responsibilities and/or action items selected for the strategy.

Confirm the date and time for the 6-month check-in or 12-month follow-up.

After the call, consultants should send a thank you/follow-up note to the provider and include the updated SIP, links to on-line resources, and a reminder of the date for the next contact.

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

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

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

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?

Provider Lost to Follow-Up

A consultant may not always be able to complete the IQIP cycle with a provider. The IQIP Database provides the option for a consultant to designate a provider as lost to follow-up if any of the following conditions are met at the time of the 2-month or 6-month check-in or 12-month follow-up:

- Provider site has 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 has opted out of further IQIP engagement.

Module 7 – 12-Month Follow-Up

Overview

Requirement: If the 12-month follow-up will also be the beginning of a new IQIP cycle then it must be done in person.

The 12-month follow-up allows consultants to assess the status and support the sustainability of implemented 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 is usually conducted by phone or webinar. If awardees opt to begin another 12-month IQIP cycle with the same provider, the follow-up must be conducted on site at the provider's office. 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.
- Assure appropriate staff participates.
- Agree upon method for sharing assessment reports to be discussed during the follow-up (e.g., e-mail attachments, Skype, etc.).

CDC has developed a 12-month follow-up checklist for consultants (*see Appendix C)* to assist awardees in preparing for the calls. Awardees may also wish to 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 SIP
- Notes and data from the site visit and check-in
- Relevant information regarding VFC compliance issues
- Status of any technical assistance the program agreed to provide
- Assessment reports (if generated by the consultant)
- Previously generated assessment reports (IIS- or EHR-based)

Follow-Up Assessment Reports

Requirement: Initial and 12-month follow-up coverage reports must be run using the same parameters.

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. The 12-month coverage assessment, when conducted, must be run using the same parameters used for the initial coverage assessment.

Conducting the 12-Month Follow-Up

At the beginning of the follow-up, provide a brief outline of the topics that will be covered to assure appropriate staff is participating and to focus the discussion. Next, review the provider's progress on implementing the selected strategies.

Review Strategy Implementation Plan

If the provider completed all action items in their SIP, consultants may choose to explore the provider's experience to:

- Assess the quality of technical assistance provided.
- Assess sustainability of the implementation of the selected QI strategies.
- Determine if the provider encountered any barriers or if they implemented their QI strategies as intended.

If the provider did not complete some or all action items in their SIP, the consultant should explore the reasons why to identify the barriers to completion. The consultant should then partner with the provider in troubleshooting to overcome barriers as well as discussing action steps that providers may complete on their own. Because IQIP emphasizes a collaborative approach, consultants should lead this discussion using effective communication techniques.

Review of Coverage Assessments

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, especially for adolescent vaccines, and 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

The consultant should compare the provider's 12-month coverage with initial coverage and share and discuss year-over-year changes. For example, the coverage assessments might indicate the provider made progress bundling their HPV vaccine recommendation with their recommendation for Tdap and MenACWY vaccines. If HPV vaccination coverage remained unchanged even when bundled, the consultant should further discuss the provider's approach to strategy 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. 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 likely the coverage change is an artifact, at least to some degree, of documentation and record-keeping (e.g., removing inactive patients from the IIS), as opposed to an actual increase in vaccine uptake.

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

Requirement: Documentation of the 12-month follow-up in the IQIP Database is required.

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

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?

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 high-level summary of the strategies selected and 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.

Module 8 – Conducting IQIP with Multisite Providers

Overview

Awardees may conduct IQIP activities with multisite provider groups collectively. In this scenario, the consultant arranges a joint meeting with representatives from each provider site for the site visit component of IQIP. Check-ins and the 12-month follow-up must be conducted individually with each provider site. Benefits to the joint 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 workflow improvement.
- Awardees 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 sites enrolled in the VFC program, and all sites participating in IQIP should provide routine vaccination services.

IQIP operational guidance in previous modules applies when working with multisite provider groups, with some exceptions and additions. This module addresses only these variations.

Modifications to IQIP Operations When Working with Multisite Providers

Assessment Reports

- Vaccination assessment reports must be generated individually for each provider site in the group both for the site visit and the 12-month follow-up.

Data Collection and Reporting

- Consultants must document IQIP data and notes separately for each provider site in the IQIP Database.
- CDC recommends the consultant confirms that each provider site is in the IQIP Database prior to the site visit to support timely entry of data and notes. If any sites are not represented in the IQIP Database, contact IQIP@cdc.gov.

Pre-IQIP Visit Activities

Along with the activities outlined in Module 4 – Pre-IQIP Activities: Arranging a Site Visit, consider the following when arranging a joint site visit:

- Meeting space
- Internet connectivity and audiovisual equipment available (if needed)
- Attendance of the appropriate representative(s) from each VFC-participating site and provider group's management

Site Visit

In relation to the activities in Module 5:

- The consultant serves as the primary facilitator for IQIP-related discussions among representatives from participating sites.
- Direct observation of facility workflow for all participating provider sites may not be possible if the joint visit is conducted off-site. In these cases, the consultant must rely solely on verbal descriptions of the workflow when identifying opportunities for improvement for some or all providers. However, all providers should still demonstrate their interactions with patients and parents, and the provider site hosting the multisite visit should demonstrate other workflows (e.g., IIS procedures).
- Coverage goals must be set individually for each participating provider site.
- Consultants should encourage the identification of an immunization champion for each provider site.
- Individual provider sites may select the same or different QI strategies for implementation at their locations.
- Consultants should develop an SIP for each site.

Check-Ins and Follow-Up

In relation to the activities outlined in Module 6 and Module 7:

- The 2- and 6-month check-ins must be conducted with staff from each provider site. Multiple check-ins may be conducted (i.e., one check-in conducted per provider site) or aggregately (i.e., representatives from each provider site participating in one or more group check-in calls).
- Unless beginning a new IQIP cycle, the 12-month follow-up must be conducted individually (i.e., one follow-up conducted per provider site) or aggregately (i.e., representatives from each provider site participating in one or more group follow-up calls).

Assessment reports must be generated individually for each provider site in the group.

Module 9 – Alternative QI Program Credit

Overview

CDC recognizes the existence of non-IQIP QI programs with goals that serve the IQIP purpose. For PY 1, CDC will allow 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 PY (i.e., July 1, 2019–June 30, 2020).[8]
- Awardees must report initial and 12-month coverage for each provider (i.e., the same coverage data reported for IQIP visits) *unless data are not available for remote analysis by the awardee*. Because providers engaged in an alternate QI program are not the target of IQIP interventions, the awardee should not burden the provider with data requests.
- The alternate QI program may focus on one or more vaccines, but must target patients 18 years or younger.

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

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.

Submission and Review Process

An awardee seeking IQIP credit toward their cooperative agreement requirement for provider participation in an existing QI program must complete CDC's Alternate QI Program Credit Submission Form (*Appendix I*). A fillable PDF version of this form is located in the File Repository of the IQIP Database and in the IQIP section of the ISD Awardees SharePoint portal.

- Completion of the form requires:
  - A brief narrative demonstrating the alternate QI program fulfills the IQIP purpose
  - Descriptive information about the alternate QI program obtained from the organization that administers the QI program or, if necessary, from the participating provider

[8] If provider participation in the alternate QI program ended before July 1, 2019, the awardee may not receive IQIP credit for that provider for PY 1. 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 PY 1.

    - Any available supporting materials (e.g., worksheets, presentations, URLs, or handouts) used or distributed by the alternate QI program
    - 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 make a determination on the QI program's suitability for IQIP credit. 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 ISD Awardees SharePoint portal and in the File Repository of the IQIP Database.

Recording Data in IQIP Database

Once CDC adds an alternate QI program to the list of approved programs, an awardee may enter 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. Data reported in the IQIP Database include:

- Descriptive information about the alternate QI program (a subset of the information reported on the Alternate QI Program Submission Form)
- IIS- or EHR-based initial and 12-month coverage data; coverage data for alternate QI program reporting are not required if they **cannot be**:
    - Obtained electronically (i.e., chart pulls are not required) or
    - Generated remotely by the IQIP consultant (i.e., using IIS data) or
    - *Conveniently and willingly* generated by the provider and shared with the awardee via e-mail (i.e., a provider-run, EHR-based coverage report)

Specific instructions for reporting alternate QI program data in the IQIP Database are included in the IQIP Database User Guide (located in the ISD Awardees SharePoint portal 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 IQIP consultants 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.

Module 10 – 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). 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:

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

IQIP Training

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

- Purpose and overview of IQIP, highlighting the requirements for each step in the IQIP cycle
- Awardee-specific IQIP operational policies and procedures
- Generating (using IIS or CoCASA if applicable), interpreting, and discussing provider-level assessment reports with provider staff
- IQIP data reporting requirements, including use of the IQIP Database
- How to observe, assess, and document provider immunization delivery processes and workflows (clinical and nonclinical)
- How to effectively communicate with provider staff, taking into account audience differences (*see Module 6 – 2-Month and 6-Month Check-Ins: Examples of Effective Communication Techniques*)
- The awardee-defined custom strategy (if applicable), including its rationale and provider-specific action steps for implementation
- Monitoring, discussing, and documenting provider QI implementation progress
- Providing ongoing technical assistance to provider staff to support the implementation of selected QI strategies

Overview: Awardee Training Responsibility

Requirement: Awardees must provide training for all IQIP consultants upon hire and annually 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.

To perform their job duties effectively, IQIP consultants need:

- The most current CDC IQIP Operations Guide
- The most current awardee-specific IQIP operations guide
- Access to the awardee's IIS and AFIX-IIS solution (if applicable)
- Access to the IQIP Database
- Access to the internet and a laptop
- Access to educational content and training materials

IQIP coordinators should construct a training plan (*see Appendix L for sample*) to ensure that all 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.

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

An awardee may choose to offer a custom strategy to providers along with the three 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 three core IQIP strategies (*see Appendix J*)
- 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

Skills and Attributes for Successful IQIP Interactions

Awardees should emphasize communication and interpersonal skills during staff 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.

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 Community Guide[9] lists several approaches for increasing immunization 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 scaled to be implemented feasibly by providers during the 12-month IQIP cycle?

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

[9] https://www.thecommunityguide.org/topic/vaccination

Requirement: Awardees must prepare an overview of their proposed custom strategy and submit it to CDC for approval prior to offering it as an IQIP strategy.

Once the strategy is developed, the awardee will need to send the Custom Strategy Submission Form (*see Appendix K*) to CDC for approval prior to offering it as an option. A fillable PDF version of this form is located in the IQIP section of the ISD Awardees SharePoint portal and 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 resources that will be used to support the strategy
- Description of delivery method (e.g., discussion, handouts, demos, role-playing, etc.)

Send custom strategy proposals to IQIP@cdc.gov with the awardee name and "Custom Strategy Proposal" in the subject line and allow for two weeks for CDC review. 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 webpage.[10]

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.

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.

The awardee 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 guidance. If awardee IQIP and VFC program oversight involves separate coordinators, but an awardee conducts combined IQIP and VFC site visits, CDC recommends including the VFC designee as part of the annual IQIP training process (*see Module 10 – IQIP Program Management: IQIP Training*).

[10] https://www.cdc.gov/vaccines/partners/index.html

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

- Provider site selection and scheduling (*see Module 1 – Provider Site Selection*)
- 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 5 – Site Visit*)
- 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 Reports*)
- Conducting 2- and 6-month check-ins, including the purpose, timing, preparation, logistics, participants, implementation, documentation, and any associated correspondence (*see Module 6 – 2-Month and 6-Month Check-Ins*)
- Conducting the 12-month follow-up, including the purpose, timing, preparation, logistics, participants, implementation, and documentation (see *Module 7 – 12-Month Follow-Up*)
- Conducting IQIP with multisite providers (*see Module 8 – Conducting IQIP with Multisite Providers*)
- Working with providers who are actively engaged in alternative QI programs, including submission to CDC for credit toward IQIP requirements (see *Module 9 – Alternative QI Program Credit*)
- 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)
- Oversight and monitoring of IQIP activities and data, including observation of IQIP consultants as they conduct visits and quality assurance checks on data entered in the IQIP Database (*see Module 10 – IQIP Program Management: IQIP Program Monitoring*)
- Training IQIP staff, including curriculum for training new employees and providing periodic training updates for existing employees (*see Module 10 – IQIP Program Management: IQIP Training*)

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 responses to questions and requests in a timely manner.
- Consultants enter data and notes into the IQIP Database according to CDC and awardee specifications.

Methods for program monitoring include but are not limited to:

- Observing consultants during site visits, check-ins, and 12-month follow-ups
- Using the dashboard and reports in the IQIP Database to monitor visit status and data quality (e.g., timeliness, completeness, and accuracy). Refer to the IQIP Database User Guide located in the File Repository of the IQIP Database and the ISD Awardees SharePoint portal for additional information
- Reviewing a random selection of consultant notes in the IQIP Database
- Conducting a provider feedback survey

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. Before conducting any survey, awardees need to determine:

- Any jurisdiction 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

Awardees may use survey results to identify training needs or other IQIP program areas needing attention.

Appendices

Appendix A: Summary of IQIP Program Requirements

Appendix B: IQIP Timeline Examples

Appendix C: Preparation Checklists

Appendix D: IQIP Site Visit Confirmation Letter

Appendix E: Site Visit Form

Appendix F: Immunization Workflow Template

Appendix G: Strategy Implementation Plan

Appendix H: Effective Communication for IQIP Consultants

Appendix I: Alternative QI Program Credit Submission Form

Appendix J: AFIX to IQIP: Strategy Crosswalk

Appendix K: Custom Strategy Submission Form

Appendix L: IQIP Consultant Training Plan (Sample)

Appendix M: IQIP Site Visit Process

Appendix N: Alternative QI Program Credit

Appendix O: Multi-Site IQIP Site Visits

Appendix P: IQIP Resources: Where to Find Them and How to Use Them

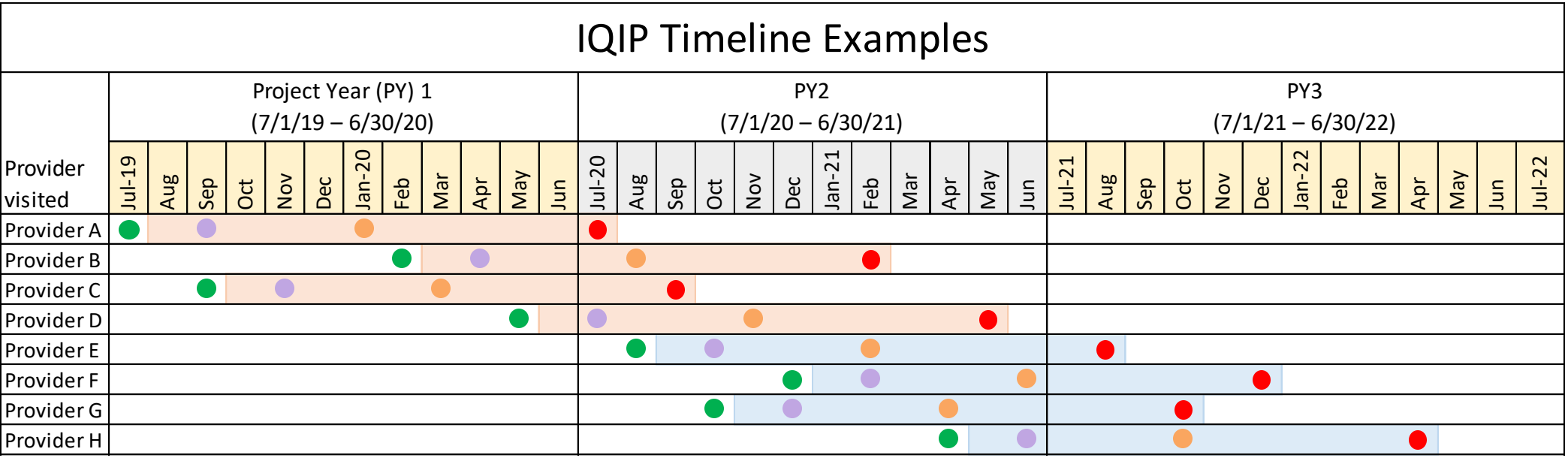
Printable copies of all appendices can be found in the Awardees SharePoint portal.

Appendix A
Summary of IQIP Program Requirements

T	IQIP Requirement
	Provider Level Immunization Quality Improvement: Background and Overview
	➢ Awardees must designate an individual to serve as IQIP coordinator.
	Module 1 Provider Site Selection
	➢ Awardees are required to initiate IQIP quality improvement activities with 25% of CDC-defined IQIP candidate VFC providers within their jurisdiction as well as check-in and follow-up activities with those providers already engaged in the process.
	Module 2 Assessment Reports
	➢ Awardees must assess both childhood and adolescent cohorts if the provider has any active patients in either cohort.
	➢ 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.
	Module 5 Site Visit
	➢ Documentation of the site visit in the IQIP Database is required. (If opting to use a paper form, the information must be entered into the IQIP Database within 10 business days after the site visit.)
	➢ Awardees must begin the site visit by assessing the provider's immunization workflow.
	➢ 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 must be conducted by phone with the optional use of webinar.
	➢ Documentation of the 2- and 6-month check-ins in the IQIP Database is required within 10 business days after the contact.
	Module 7 12 Month Follow Up
	➢ If the 12-month follow-up will also be the beginning of a new IQIP cycle then it must be done in person.
	➢ Initial and 12-month follow-up coverage reports must be run using the same parameters.
	➢ Documentation of the 12-month follow-up in the IQIP Database is required.
	Module 10 IQIP Program Management
	➢ Awardees must provide training for all IQIP consultants upon hire and annually to ensure effective program implementation.
	➢ Awardees must prepare an overview of their proposed custom strategy and submit it to CDC for approval prior to offering it as an IQIP strategy.
	➢ 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

IQIP Timeline Examples



OPERATIONAL NOTES

- IQIP visits may take place at any point during the PY to which they will be credited
- 12-month follow-ups must occur in the PY after the PY in which the site visit occurred
- 2-month 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		
Credited to PY1	IQIP Site Visit	6-Month Check-In
Credited to PY2	2-Month Check-In	12-Month Follow-Up

Appendix C
Preparation Checklists

Preparing for the Site Visit

- ☐ Confirm the provider site is in the IQIP Database. If not, the IQIP coordinator should contact IQIPDatabase@cdc.gov.
- ☐ If the provider received a previous AFIX or IQIP visit, consider reviewing the following information prior to the visit:
  - ○ *Number of pediatric and/or adolescent patients served by the provider site*
  - ○ *Vaccination coverage for pediatric and/or adolescent patient populations*
  - ○ *Previously selected QI strategies and site visit notes*
- ☐ Contact the provider to schedule the site visit.
  - ○ *Identify the primary IQIP contact at the provider site to discuss logistics and confirm their title and contact information.*
  - ○ *Discuss the availability and participation of staff members who have a role in immunization service delivery. CDC recommends participation by the provider's immunization champion and/or QI coordinator, if applicable.*
  - ○ *Discuss the amount of time needed for the site visit.*
  - ○ *Choose the date and time for the visit and confirm site address and location.*
  - ○ *Confirm cohorts (i.e., child and/or adolescent) served by the provider.*
  - ○ *Discuss any consultant on-site needs (e.g., meeting space, work station, internet access, or power sources).*
- ☐ Prepare to discuss assessment report specifications (i.e., age cohorts, parameters, and doses) and data sources (i.e., IIS, EHR, or charts).
- ☐ Prepare to discuss the core IQIP strategies and the awardee-developed custom strategy, if applicable.
- ☐ Send a confirmation letter, e-mail, or fax to the primary IQIP contact that includes:
  - ○ *Date, time, and location of site visit*
  - ○ *Benefits of provider-level immunization QI*
  - ○ *Description of IQIP and what to expect during the visit*
  - ○ *IQIP consultant contact information*
- ☐ Reconfirm the site visit two to three business days prior to the visit.
- ☐ Run IIS-based assessment reports (if generated by the IQIP consultant before the visit).

General IQIP Resources

- ☐ Awardee-specific IQIP Operations Guide
- ☐ IQIP At-A-Glance
- ☐ IQIP Consultant Toolkit
- ☐ IQIP Database User Guide

Items to Bring to the Site Visit

- ☐ Tool for documenting IQIP site visit information (i.e., laptop with internet access or hard copy IQIP Site Visit Form)
- ☐ Awardee-specific IQIP Operations Guide and other awardee-developed materials
- ☐ IQIP resources for providers (e.g., materials related to IQIP strategies, parent-focused educational materials, etc.)
- ☐ IIS-based assessment reports (if generated by IQIP consultant before the site visit)

Other Helpful Information

- ☐ General knowledge about the patient population served by the provider (i.e., race/ethnicity, socioeconomic status, insurance status, and English proficiency or other languages spoken)
- ☐ Staff information, including immunization champion and/or QI coordinator, physician, and staff with decision-making authority
- ☐ IIS reporting method and current status

Preparing for the 2- and 6-Month Check-Ins

Check-ins must be conducted by phone or webinar.

- ☐ Assess provider-level vaccination coverage during the 6-month check-in (optional). Consultants should interpret changes in coverage in context with other variables, such as seasonality and changes in denominator.
- ☐ Gather and review all relevant provider information prior to call, including:
  - ○ *Strategy Implementation Plan (SIP)*
  - ○ *Notes and data from the site visit and/or previous check-in*
  - ○ *Relevant information regarding VFC compliance issues that have taken place since the site visit and/or previous check-in*
  - ○ *Status of any technical assistance the program agreed to provide*
- ☐ Send written confirmation to the primary IQIP contact for the call that includes:
  - ○ *Date, time, duration, purpose, goals, and method of delivery (phone or webinar)*
  - ○ *Requested participation of the provider staff members who have a role in immunization service delivery. CDC recommends participation of the provider's immunization champion and/or the QI coordinator, if applicable.*
- ☐ Reconfirm the check-in two to three business days prior to the scheduled call. Run IIS-based assessment reports (if generated by the IQIP consultant before the site visit).
- ☐ Prepare to discuss the provider's progress toward implementing IQIP strategies selected during the site visit or previous check-in.

Items Needed for Check-Ins

- ☐ Tool for documenting check-in information (i.e., computer with internet connection for recording check-in information in the IQIP Database)
- ☐ Notes and data from the site visit or previous check-in
- ☐ IQIP resources (e.g., IQIP strategy information or parent-focused materials, etc.)
- ☐ Assessment reports (optional, if generated prior to check-in)

Preparing for the 12-Month Follow-Up

12-month follow-up must be conducted by phone or webinar, or in person if beginning a new IQIP cycle with the same provider site. E-mail alone is not permitted.

- ☐ Gather and review all relevant provider information before the follow-up, including:
  - ○ *Strategy Implementation Plan (SIP)*
  - ○ *Notes and data from the site visit and check-ins*
  - ○ *Relevant information regarding VFC compliance issues that have taken place since the previous check-ins*
  - ○ *Status of any technical assistance the program agreed to provide*
  - ○ *Previously generated assessment reports (IIS- or EHR-based)*
- ☐ Prepare to discuss the provider's progress in implementing IQIP strategies.
- ☐ Send a confirmation letter, e-mail, or fax to the IQIP contact for the follow-up that includes:
  - ○ *Date, time, purpose, goals, and participants for the follow-up*
  - ○ *Communication method for sharing the provider's coverage reports (e.g., e-mail attachments or webinar)*
- ☐ Reconfirm the follow-up two to three business days before the scheduled call.
- ☐ Using the same parameters used for the initial assessment reports, run and prepare to discuss the follow-up coverage reports with the provider staff. Review year-over-year change in coverage and progress compared to coverage goals.

Items Needed for Follow-Up

- ☐ Tool for documenting the follow-up call (i.e., computer with internet connection for recording follow-up information in the IQIP Database)
- ☐ IQIP resources (e.g., IQIP strategy information or parent-focused materials, etc.)
- ☐ Follow-up IIS-based coverage reports (if generated by IQIP consultant or the provider before the follow-up)

Concluding the IQIP Cycle

- ☐ Send correspondence to the primary IQIP contact to acknowledge their participation and encourage continued QI efforts. The correspondence should include:
  - ○ Summary of IQIP strategies selected and any ongoing action items
  - ○ Synopsis page from the IQIP Database or an awardee-developed summary document
  - ○ Year-over-year changes in coverage
  - ○ Consultant contact information for follow-up questions

Appendix D

The Immunization Quality Improvement for Providers (IQIP)

Site Visit Confirmation

[Provider Name] [Date]
[Provider Full Address]

Dear [Medical Director or Point-of-Contact],

Thank you for scheduling time for the Immunization Quality Improvement for Providers (IQIP) site visit. I will be at your facility at [time] on [date]. The visit will last approximately [XX].

The goal of this visit is to work together to identify key quality improvement (QI) strategies that can improve immunization service delivery in your practice so that more children are vaccinated on time and protected against vaccine-preventable diseases.
On the day of the visit, please ensure that staff who play a role in immunization processes are available to participate in the visit. This enhances the discussion regarding your facility's current practices. If you have an "immunization champion" and/or QI coordinator available to participate, it would be especially beneficial to include them.

Thank you for all that you do to immunize the children of [Awardee]! I look forward to visiting with you soon.

Sincerely,

Name, Title
[Awardee] Immunization Program
Contact information

Appendix E

IQIP IMMUNIZATION QUALITY IMPROVEMENT FOR PROVIDERS

SITE VISIT FORM

Provider name		VFC PIN	

SITE VISIT DETAILS

1	**Date of site visit** * must provide value	
2	**Type of site visit** * must provide value	○ (a) IQIP ○ (b) IQIP and VFC
3	**Provider sites represented during the visit** * must provide value	○ (a) This provider site only ○ (b) This provider site and others from the same multisite practice or health care system *If (a), skip to Question 6*
4	**Number of provider sites represented during the visit (including this one)** * must provide value	
5	**Name of the multisite practice or health care system** * must provide value	

IQIP CONSULTANT

6	**First name** * must provide value	
7	**Last name** * must provide value	
8	**Phone** * must provide value	
9	**Email** * must provide value	
10	**Home office** * must provide value	○ (a) Local health department or contractor ○ (b) State/central immunization program
11	**Name of home office** * must provide value	

PROVIDER STAFF		
Primary IQIP Contact		
12	**Name** * must provide value	
13	**Phone** * must provide value	
14	**Email** * must provide value	
Immunization-Focused Staff		
15	**Does the provider have an immunization champion?** * must provide value	○ (a) Yes ○ (b) No
16	**Does the provider have a QI coordinator that covers immunization?** * must provide value	○ (a) Yes ○ (b) No
Site Visit Participants		
17	**How many staff from <u>this</u> provider site participated during this IQIP site visit?** * must provide value	○ (a) 1 ○ (b) 2 ○ (c) 3 ○ (d) 4 ○ (e) 5 or more
18	**Names and titles or roles of IQIP site-visit participants from this provider site** CDC recommends, <u>and IQIP coordinators may require</u>, this information to assist with record-keeping and follow-up.	
19	**Which option best describes the participation of the provider's vaccine prescriber(s) during this IQIP site visit?** * must provide value	○ (a) Participated for the entire visit ○ (b) Participated only for discussion of coverage ○ (c) Participated only for discussion of QI strategies ○ (d) Did not participate
PATIENT LISTS		
20	**Did this site visit include the review of any patient list(s)?** * must provide value	○ (a) Yes ○ (b) No *If no, skip to Question 23. If yes, proceed to Question 21.*
21	**Patient list(s) reviewed** * must provide value	☐ (a) Not UTD/missing doses ☐ (b) Missed opportunities ☐ (c) Active/inactive patients ☐ (d) Other *If (d), go to Question 22. Otherwise, skip to Question 23.*
22	**Specify "Other" patient list(s) reviewed** * must provide value	

QI STRATEGIES		
Schedule the Next Immunization Visit Before the Patient Leaves the Office		
23	**Summarize this strategy's current implementation status** Complete this field even if the strategy is not selected. * must provide value	
24	**Summarize existing gaps/limitations and opportunities for improvement in the current implementation of this strategy** Complete this field even if the strategy is not selected. * must provide value	
25	**Did the provider select this strategy for implementation or improvement?** * must provide value	○ (a) Yes ○ (b) No *If yes, skip to Question 27. If no, go to Question 26.*
26	**Why not?** * must provide value	*Skip to Question 29 after completing this answer.*
27	**Describe technical assistance you provided for this strategy (e.g., resources, demos, role-playing, etc.)** * must provide value	
28	**Describe action items for this strategy (i.e., implementation/improvement steps for the provider and future technical assistance you will provide)** Short bullets recommended. The action items for all selected strategies are autocopied to the Strategy Implementation Plan on the Synopsis page of the IQIP Database, which you can email to the provider after the site visit. Recommended format for action items: • Brief description of task (assigned staff: target date) Example action item: • Add discussion of patient scheduling workflow as a standing item for weekly staff meeting (Miguel: 10/14/2019) * must provide value	

Leverage IIS Functionality to Improve Immunization Practice		
29	**Summarize this strategy's current implementation status** Complete this field even if the strategy is not selected. * must provide value	
30	**Summarize existing gaps/limitations and opportunities for improvement in the current implementation of this strategy** Complete this field even if the strategy is not selected. * must provide value	
31	**Did the provider select this strategy for implementation or improvement?** * must provide value	○ (a) Yes ○ (b) No *If yes, skip to Question 33. If no, go to Question 32.*
32	**Why not?** * must provide value	*Skip to Question 35 after completing this answer.*
33	**Describe technical assistance you provided for this strategy (e.g., resources, demos, role-playing, etc.)** * must provide value	
34	**Describe action items for this strategy (i.e., implementation/improvement steps for the provider and future technical assistance you will provide)** Short bullets recommended. The action items for all selected strategies are autocopied to the Strategy Implementation Plan on the Synopsis page of the IQIP Database, which you can email to the provider after the site visit. Recommended format for action items: • Brief description of task (assigned staff: target date) Example action item: • Demo (with screen sharing) how to run coverage reports in the IIS during the 2-month check-in (M. Hilleman (IQIP consultant): 12/1/2019) * must provide value	

Give a Strong Vaccine Recommendation (Include HPV Vaccine If Practice Serves Adolescents)		
35	**Summarize this strategy's current implementation status** Complete this field even if the strategy is not selected. * must provide value	
36	**Summarize existing gaps/limitations and opportunities for improvement in the current implementation of this strategy** Complete this field even if the strategy is not selected. * must provide value	
37	**Did the provider select this strategy for implementation or improvement?** * must provide value	○ (a) Yes ○ (b) No *If yes, skip to Question 39. If no, go to Question 38.*
38	**Why not?** * must provide value	*Skip to Question 41 after completing this answer.*
39	**Describe technical assistance you provided for this strategy (e.g., resources, demos, role-playing, etc.)** * must provide value	
40	**Describe action items for this strategy (i.e., implementation/improvement steps for the provider and future technical assistance you will provide)** Short bullets recommended. The action items for all selected strategies are autocopied to the Strategy Implementation Plan on the Synopsis page of the IQIP Database, which you can email to the provider after the site visit. Recommended format for action items: • Brief description of task (assigned staff: target date) Example action item: • Encourage staff members who discuss vaccines with families to install CDC's "HPV Vaccine: Same Way, Same Day" app; verify completion of the exercises by 2-month check-in (Susan & Miguel: 12/1/2019) * must provide value	

Custom QI Strategy		
41	**Did you cover a custom QI strategy during the site visit?**	○ (a) Yes ○ (b) No *If no, go to Question 49.*
42	**Provide a short name for the custom strategy** * must provide value	
43	**Summarize this strategy's current implementation status** Complete this field even if the strategy is not selected. * must provide value	
44	**Summarize existing gaps/limitations and opportunities for improvement in the current implementation of this strategy** Complete this field even if the strategy is not selected. * must provide value	
45	**Did the provider select this strategy for implementation or improvement?** * must provide value	○ (a) Yes ○ (b) No *If yes, skip to Question 47. If no, go to Question 46.*
46	**Why not?** * must provide value	*Skip to Question 49 after completing this answer.*
47	**Describe technical assistance you provided for this strategy (e.g., resources, demos, role-playing, etc.)** * must provide value	
48	**Describe action items for this strategy (i.e., implementation/improvement steps for the provider and future technical assistance you will provide)** Short bullets recommended. The action items for all selected strategies are autocopied to the Strategy Implementation Plan on the Synopsis page of the IQIP Database, which you can email to the provider after the site visit. Recommended format for action items: • Brief description of task (assigned staff: target date) * must provide value	

SITE VISIT WRAP-UP

ENCOURAGE PROVIDER STAFF TO COMPLETE THESE ACTION ITEMS AT THEIR NEXT STAFF MEETING:

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

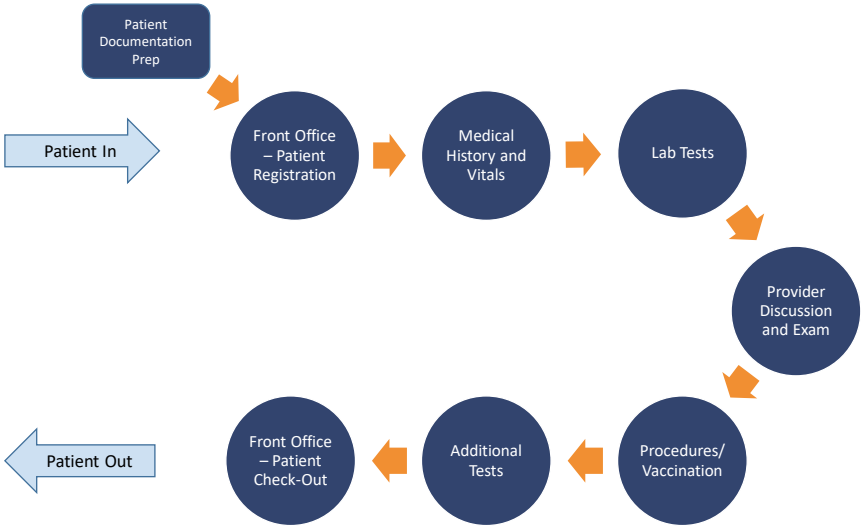
49	**Date planned for 2-month check-in** Discuss with provider. * must provide value	
50	**Date planned for 6-month check-in** Discuss with provider. * must provide value	
51	**Date planned for 12-month follow-up** Discuss with provider. * must provide value	
52	**How much time was devoted to IQIP during this site visit?** * must provide value	○ (a) Less than 1 hour ○ (b) 1 hour to less than 1.5 hours ○ (c) 1.5 hours to less than 2 hours ○ (d) 2 hours to less than 3 hours ○ (e) 3 hours or more
53	**Additional site visit notes**	

End of IQIP Site Visit Form

Please transfer these notes and data to IQIP Database within five business days.

Appendix F

Immunization Workflow Template



Points to consider:

1. Who reviews the patient's vaccination history and determines needed vaccines? When is this done? What source is used (IIS or EHR)?
2. Who discusses vaccines with the patient/parents? When is this done?
3. Which staff can play a part in making or reinforcing a strong vaccine recommendation?
4. When are vaccination data documented in the IIS or EHR?
5. When and by whom are the due dates for future vaccination discussed?
6. When and by whom is the next immunization appointment made? Are there patient reminders before the next visit?

Appendix G

STRATEGY IMPLEMENTATION PLAN

Choose IQIP step

Enter date

PROVIDER INFORMATION

Provider name: Enter provider name		
City: Enter city	County: Enter county	VFC PIN: Enter VFC PIN
Primary IQIP contact name: Enter contact name	E-mail: Enter contact e-mail	Phone: Enter contact phone

AWARDEE INFORMATION

IQIP consultant name: Enter consultant name	E-mail: Enter consultant e-mail	Phone: Enter consultant phone
Health department: Enter name of consultant's health department		

RECOMMENDED ACTION ITEMS TO COMPLETE AT THE NEXT STAFF MEETING

[Delete the tables below that do not apply for this visit or call; then delete this line of text.]

After the Site Visit

Action item	Assigned staff	Target date
Introduce colleagues to IQIP; describe the yearlong IQIP cycle	Enter assigned staff	Enter target date
Review initial coverage (if measured), selected strategies, and roles/workflows to support implementation	Enter assigned staff	Enter target date
Select (or introduce, if already selected) an immunization champion or QI coordinator and describe their role	Enter assigned staff	Enter target date
Enter additional action item (optional)	Enter assigned staff	Enter target date

After the 2-Month or 6-Month Check-In

Action item	Assigned staff	Target date
Summarize the check-in and review progress toward implementation of selected strategies	Enter assigned staff	Enter target date
Adjust staff roles and refine clinic workflows as appropriate	Enter assigned staff	Enter target date
Enter additional action item (optional)	Enter assigned staff	Enter target date

After the 12-Month Follow-Up

Action item	Assigned staff	Target date
Review year-over-year change in coverage (if measured)	Enter assigned staff	Enter target date
Evaluate implementation status of selected strategies	Enter assigned staff	Enter target date
Refine roles and workflows to support sustained improvement	Enter assigned staff	Enter target date
Enter additional action item (optional)	Enter assigned staff	Enter target date

Action Items for Selected Strategies

[Delete the tables below for any strategies not selected; then delete this line of text.]

Schedule the Next Immunization Visit Before the Patient Leaves the Office		
Action item	**Assigned staff**	**Target date**
Enter action item	Enter assigned staff	Enter target date

Leverage IIS Functionality to Improve Immunization Practice		
Action item	**Assigned staff**	**Target date**
Enter action item	Enter assigned staff	Enter target date

Give a Strong Vaccine Recommendation (Include HPV Vaccine if the Provider Sees Adolescent Patients)		
Action item	**Assigned staff**	**Target date**
Enter action item	Enter assigned staff	Enter target date

[Custom QI Strategy: Enter Name Here]		
Action item	**Assigned staff**	**Target date**
Enter action item	Enter assigned staff	Enter target date

Appendix H
Effective Communication for IQIP Consultants

Because IQIP emphasizes a collaborative approach, consultants should lead discussions with providers in a way that builds rapport and involves them in problem-solving. Communication techniques consultants can use to do this are:

- Open-ended questions
- Affirmations
- Attentive listening
- Reflective listening
- Probing questions

Open-Ended Questions

An open-ended question is one that asks for additional detail and deeper thought, whereas a close-ended question is one that needs only a one-word (e.g., "yes" or "no") response. Asking open-ended questions during discussions with provider staff is key because it creates a receptive, open tone and invites them to talk more in detail about their perspective. Asking closed-ended questions may lead to passive participation in the discussion (waiting for more questions rather than offering information) or responses of only one word or short phrases.

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 responses (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 happened when you attempted to update your scheduling procedures?" "What happened when you tried running reports from the IIS?" "What concerns did parents have that you were not able to address?"	"Did your front desk staff do as you asked?" "When you tried to run reports from the IIS, they timed out, right?" "Don't parents listen to their doctors?"

Affirmations

Affirmations are statements of support made during a discussion to emphasize the provider staff has done well. By affirming provider staff, the consultant recognizes their strengths and reinforces to them their ability to effect change.

Examples:

"I can see that implementing these changes was no easy task."
"You've put a lot of effort into learning how to run these reports."
"I can clearly see that you care a lot about making sure parents have all the information they need."

Attentive Listening

Consultants should listen attentively when providers answer their questions. An attentive listener:

- Looks at the speaker and gives them their undivided attention
- Shows that they are listening—nods, maintains an open posture, encourages the speaker to continue
- Waits until the speaker is finished with their answer before responding

Reflective Listening

Reflective listening is the practice of attentively listening during a discussion, then reflecting back to the person a brief summary of what they said. A consultant who is practicing reflective listening appears open and receptive and delivers their response in a neutral tone of voice. When responding, a consultant can either paraphrase what they heard or provide an abbreviated version of what they heard:

- "Are you saying that your front desk staff isn't really comfortable with the new scheduling procedures?"
- "It sounds like the reports you are running include patients that aren't yours. Is that correct?"
- "So parents are still vaccine-hesitant because they don't understand the need for multiple shots in one visit?"

Probing Questions

A probing question is one that draws out a more detailed response or additional information from someone during a discussion. When used as a follow-up to a workflow description, for example, a probing question can help a consultant pinpoint the reasons why a provider's workflow may be set up in a certain way or determine the underlying reasons why a provider might not be implementing their chosen strategy.
One way to probe more deeply and get more information is simply to ask *why*:

- "Why do you think that follow-up appointments are not being scheduled routinely by all staff?"
- "Why do you think that is happening?"
- "Why do you think this isn't working?

Appendix I

ALTERNATE QI PROGRAM CREDIT SUBMISSION FORM

IQIP
IMMUNIZATION QUALITY IMPROVEMENT FOR PROVIDERS

SUBMITTER INFORMATION

Awardee:	Date:
IQIP coordinator:	E-mail:

ALTERNATE QI PROGRAM INFORMATION

Collect information from the QI organization rather than the provider(s), if possible.
Completion of this form does not require a site visit. See page 2 for instructions and definitions of the fields below.

1. Name of QI organization:
2. Name of program:
3. Program website URL:
4. Program goal(s):
5. Justification for program consideration:
6. Target age cohort(s):
7. Target vaccine(s) or dose(s):
8. QI organization's technical representative:
9. Method of technical assistance delivery:
10. Target audience:
11. Duration of provider engagement:
12. Frequency of intervention:
13. Outcome measure(s):
14. Process measure(s):
15. Incentive(s):
16. Resources provided:

AWARDEE PROGRAM MANAGER APPROVAL

Name:	E-mail:
Signature:	Date:

INSTRUCTIONS

Eligibility Requirements for Receipt of IQIP Credit

- Provider(s) must be engaged in the alternate QI program at any point during the project year.
- Awardee must report initial and 12-month coverage for each provider (i.e., the same coverage data reported for IQIP visits) *unless data are not available for remote analysis by the awardee*.
- The alternate QI program may focus on one or more vaccines but must target patients 18 years or younger.
- Receipt of IQIP credit for a provider engaged in an alternate QI program does not require a site visit.

Submission and Review Process

1. Complete this form using descriptive information obtained via communication with the organization that administers the QI program. Because providers engaged in an alternate QI program are not the target of IQIP interventions, the awardee should not burden the provider with data requests. However, the awardee may request any descriptive information needed to complete this form if unable to obtain this information from the organization that administers the alternate QI program.
    a. Request/gather supporting materials (e.g., worksheets, presentations, URLs, or handouts) used or distributed by the alternate QI program (if available).
    b. Obtain program manager's signature of approval.
2. Send the completed form and relevant supporting materials to IQIP@cdc.gov with "Alternate QI Request" in the subject line. Additional supporting materials may be submitted later as new information is gathered.
    a. Submit one form per QI program (not one form per provider).
    b. If a QI program spans multiple awardee jurisdictions, awardees may collaborate to complete the form, but each awardee must submit a form.
3. CDC will review submitted forms and make a determination on the QI program's suitability for IQIP.
4. If approved, CDC will add the program to the list of approved alternate QI programs. The list will be updated regularly and located in the ISD Awardees SharePoint Portal and in the File Repository of the IQIP Database.
5. To receive IQIP credit, consultants must enter the alternate QI program name in the IQIP Database exactly as it appears on CDC's list of approved programs.

Definitions of Fields

1. Name organization (e.g., health system, manufacturer, NGO, etc.) that administers the QI program
2. Name of QI program
3. QI program's website URL, if available
4. Concise summary of overall goal(s)
5. Short narrative that demonstrates that the program serves the IQIP purpose and should be counted for IQIP credit. May include program philosophy, approach, activities (how they are taught, who teaches them, how often), incentives, evidence of effectiveness, etc.
6. Age of patients targeted (e.g., 0–12 months, <2 years, adolescents only, all patients ≤18 years)
7. Individual vaccine(s) or vaccine series targeted (e.g., all doses, influenza only, HPV initiation only, 4:3:1:3:3:1:4)
8. Description of person who delivers the QI message and technical assistance (e.g., physician, nurse, pharmaceutical representative)
9. Description of QI message delivery method (e.g., in person, webinar, web module, video, retreat/meeting)
10. Provider staff targeted by the QI program (e.g., physicians, all prescribers, nurses, administrative staff, etc.)
11. Duration of QI program, from start to finish (e.g., 3 months, 6 months, 2 years)
12. Frequency of technical assistance provided by the QI program (e.g., weekly, monthly, beginning and end only)
13. Describe the outcome measures collected by the QI program (indicate if no outcome measures)
14. Describe the process measures collected by the QI program (indicate if no process measures)
15. Indicate whether or not the QI program offers incentives and, if so, the benchmarks/thresholds for incentives
16. List resources (and provide as attachments when submitting this form, if possible) offered by the QI program (e.g., standard operating procedures, fact sheets, instruction manuals, materials for patients/parents, etc.)

E mail this form and included attachments to IQIP@cdc.gov upon completion.

For prompt review, include the awardee name and Alternate QI Credit" in the subject line.

Appendix J

AFIX to IQIP: Strategy Crosswalk

Shading indicates AFIX strategies that are components of a core IQIP strategy or otherwise part of the routine IQIP process. These strategies are not custom IQIP strategy candidates.

Key: IQIP Components

- Schedule the next immunization visit before the patient leaves the office [core strategy]
- Leverage IIS functionality to improve immunization practice [core strategy]
- Give a strong vaccine recommendation (include HPV if provider sees adolescent patients) [core strategy]
- Part of the routine IQIP process for all providers

AFIX Strategy		Notes
1	Reminder/recall process in place	Provider-level (not centralized) reminder process is applicable to the "Leverage IIS" core strategy
2	Walk-in or immunization-only visits	Potential candidate for custom QI strategy
3	Routinely measure coverage and share with staff	
4	Schedule next visit before patient leaves office	
5	Contact parents within 3–5 days of a no-show	Aspect of reminder/recall (see AFIX strategy #1)
6	Wellness visits for 11–12-year-olds	Potential candidate for custom QI strategy
7	Strong HPV vaccine recommendation	
8	Designate an immunization champion	Promoted during all IQIP site visits and calls
9	Document refusals and reasons for refusals	
10	Educate parents about immunization	Includes the topic of addressing vaccine hesitancy
11	Immunization resources for patients/parents	Includes resources addressing vaccine hesitancy
12	Staff knowledgeable about ACIP recs	
13	Train staff on scheduling immunizations	
14	Standing orders for vaccine administration	Potential candidate for custom QI strategy
15	Staff knowledgeable/comfortable vaccinating	
16	Report all administered doses in the IIS	
17	Report previously administered doses in the IIS	
18	Inactivate no longer seen patients in the IIS	
19	Use the IIS to determine which doses are due	

Appendix K

CUSTOM STRATEGY SUBMISSION FORM

IMMUNIZATION QUALITY IMPROVEMENT FOR PROVIDERS

SUBMITTER INFORMATION

Awardee:	Date:
IQIP coordinator:	E-mail:

STRATEGY INFORMATION

1. Strategy name:

2. Describe how this strategy supports the IQIP purpose.
The purpose of IQIP is to promote and support the implementation of provider-level quality improvement strategies designed to increase vaccine uptake among childhood and adolescent patients in adherence to the ACIP-recommended routine schedule.

3. Describe the available evidence or present a sound rationale to support the inclusion of this strategy.

4. Describe the method(s) to be used to introduce/present this strategy to the provider (e.g., discussion, demonstration, hands-on training, role-playing, etc.).

5. Describe the materials or resources to be used to support this strategy (e.g., fact sheets, job aids, etc.).

AWARDEE PROGRAM MANAGER APPROVAL

Name:	E-mail:
Signature:	Date:

INSTRUCTIONS

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

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

Consider the following questions when selecting a custom QI strategy:

- 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 scaled to be implemented feasibly by providers during the 12-month IQIP cycle?

E mail this form to IQIP@cdc.gov upon completion.

For prompt review, include the awardee name and Custom Strategy Proposal" in the subject line.

Appendix L

SAMPLE [Awardee] IQIP Consultant Training Plan

Purpose	
Learning Objectives	
Desired Outcomes	

Training Schedule

Trigger	Timing/ Frequency	Subjects
New consultant hire	Within 1 month of hire	• Purpose and overview of IQIP • Immunization schedule/ACIP recommendations • IQIP operations guide and comprehensive training (see curriculum below) • Shadow experienced consultant prior to first site visit
Annual training requirement	Annually in July	• New or updated CDC IQIP program requirements • New awardee policies, procedures, and performance standards
Custom QI strategy rollout	At least 1 month prior to rollout	• Benefits and rationale of strategy • Training and technical assistance delivery methods • Resources and support material

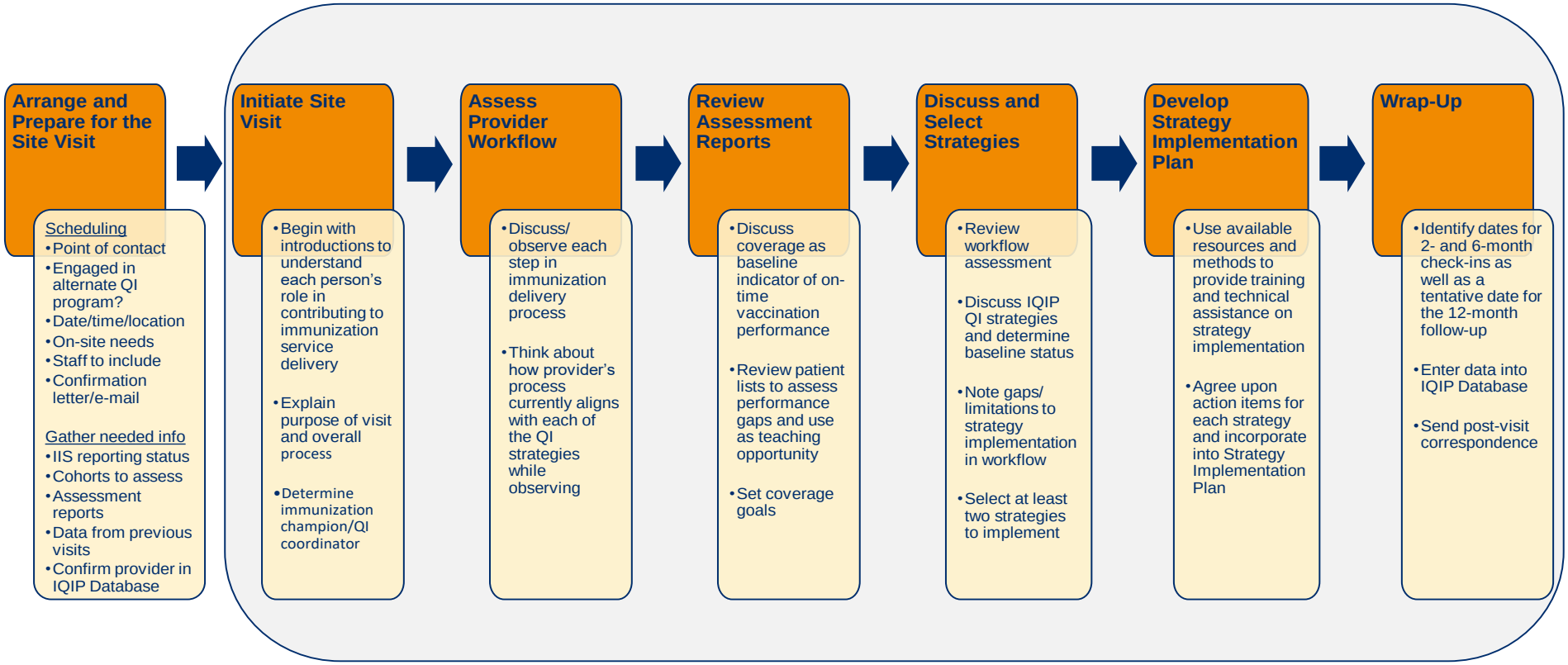
IQIP Program Training Curriculum

Topic	Delivery Method						Materials/Resources
	Presentation	Demo	Role play	Practice	Shadowing	Training Videos	
IQIP operational procedures	√						• Awardee-specific IQIP operations guide
Purpose and overview of IQIP	√						• CDC IQIP At-A-Glance • Awardee-specific IQIP operations guide
IQIP site visit – planning and conducting	√	√	√		√		• CDC IQIP Consultant Toolkit • CDC IQIP Preparation Checklist • Awardee-developed IQIP operations guide • Awardee-developed IQIP training materials
Observation and assessment of provider office workflow	√	√		√	√	√	• CDC's process mapping tool • Provider office scenarios
Provider-level assessment reports: running reports	√	√		√	√	√	• Awardee-specific IQIP operations guide • Job aids
Provider-level assessment reports: interpretation and presentation	√	√	√	√	√		• CDC assessment report interpretation guidance • Examples of provider-level assessment reports with summary of findings
Effective communication	√	√	√	√	√	√	• CDC Effective Communication for IQIP Consultants • Provider office scenarios • Communication flow charts
Core IQIP strategies	√						• CDC IQIP one-pagers • CDC IQIP Consultant Toolkit
Awardee-developed custom strategy	√						• Awardee-developed IQIP training materials • Awardee-developed IQIP one-pagers
Technical assistance/training methods	√	√	√	√	√		• Awardee-developed IQIP training materials
IQIP Database: use and data entry requirements	√	√		√	√	√	• CDC IQIP Database User Guide • Awardee-specific IQIP operations guide • Awardee-developed IQIP training materials
IQIP check-ins: providing technical assistance	√				√		• CDC IQIP Preparation Checklist • Awardee-specific IQIP operations guide

Topic	Delivery Method						Materials/Resources
	Presentation	**Demo**	**Role play**	**Practice**	**Shadowing**	**Training Videos**	
Monitoring, discussion, and documentation of QI strategy implementation progress	√			√	√		• CDC IQIP Database User Guide • Awardee-specific IQIP operations guide
IQIP 12-month follow-up	√				√		• IQIP Preparation Checklist • Awardee-specific IQIP operations guide

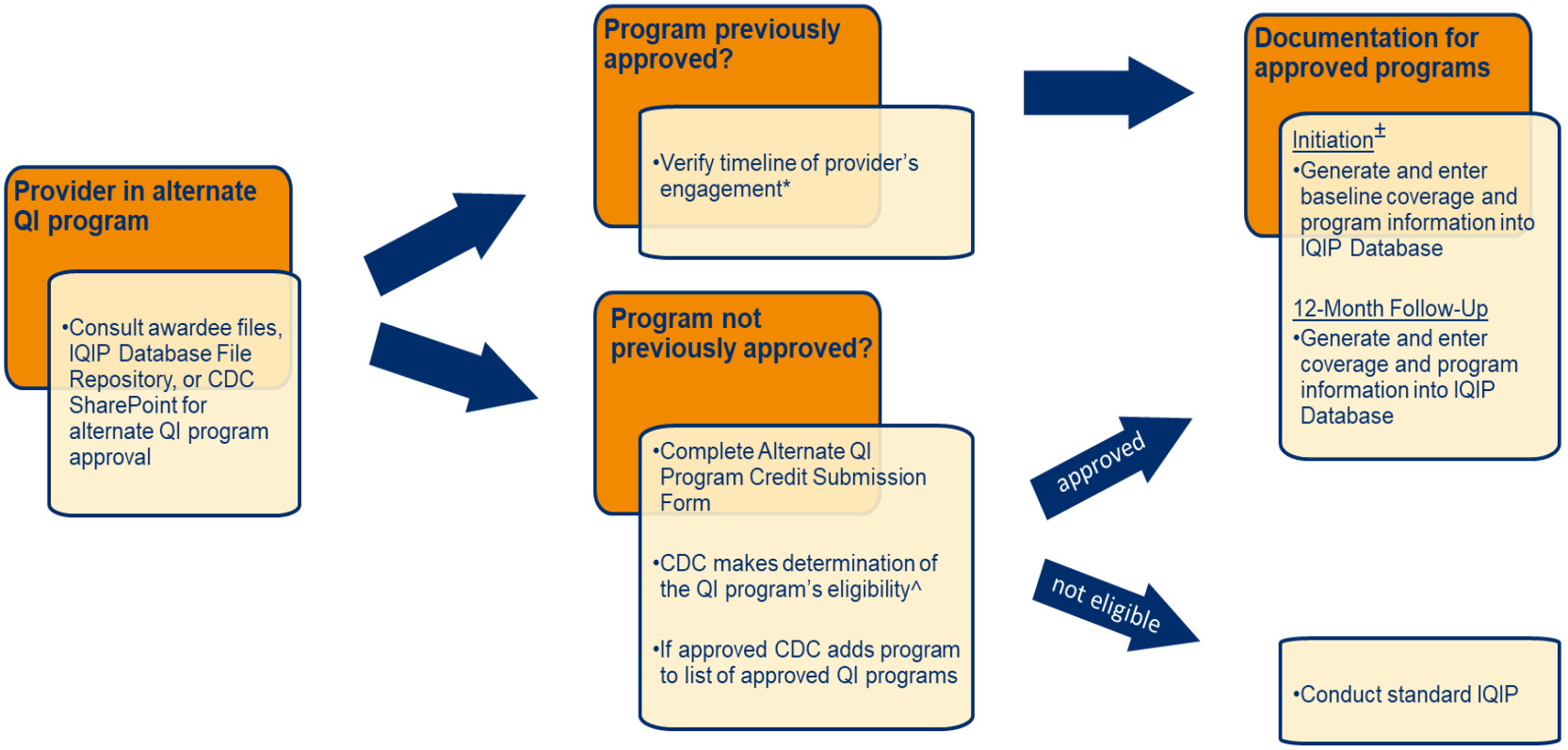
Appendix M

IQIP Site Visit Process



Appendix N

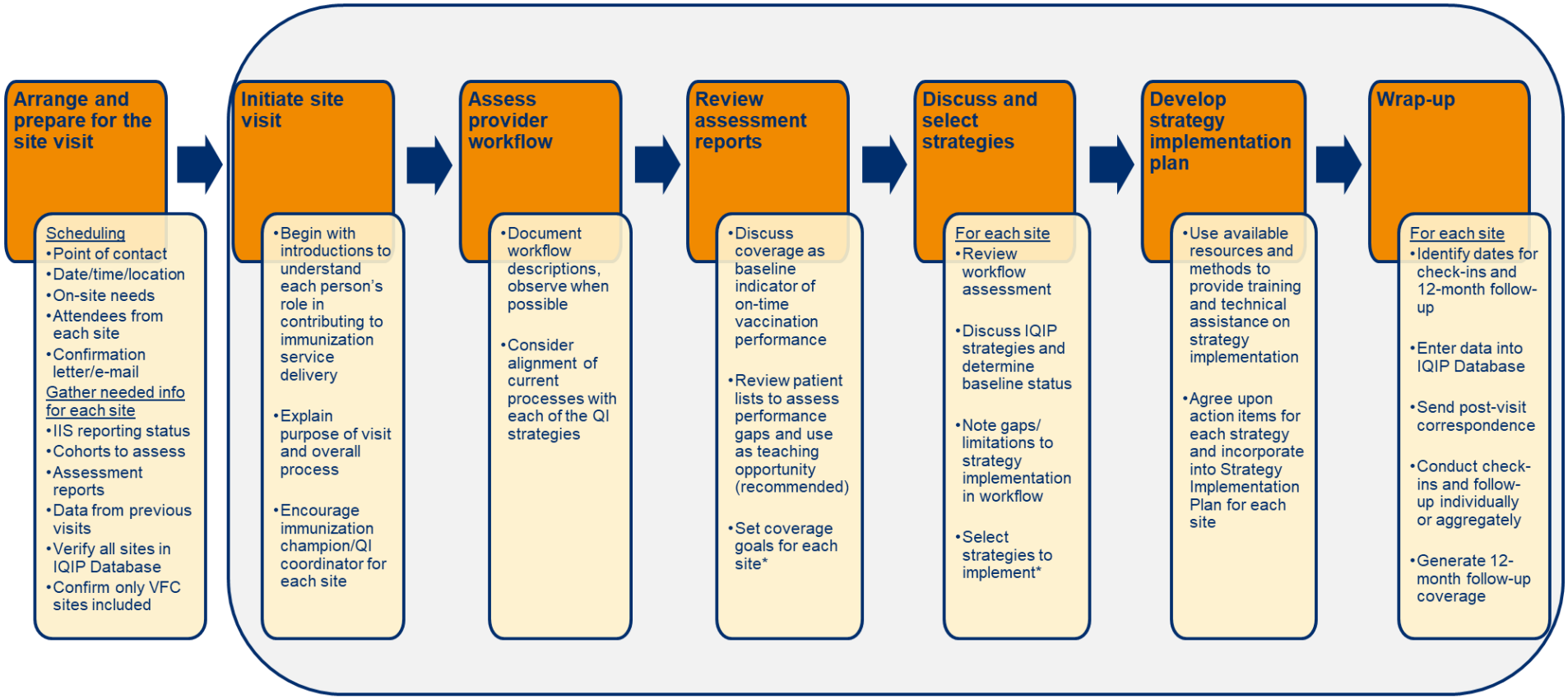
Alternate QI Program Credit



*Awardees must verify that participation occurred during PY1 (7/1/2019 – 6/30/2020).
^Alternate QI programs focusing solely on adults or those with no subsequent, ongoing QI activities are not eligible.
±Coverage data for alternate QI program reporting are not required if they cannot be obtained electronically or generated remotely by the IQIP consultant (i.e., using IIS data) or conveniently and willingly generated by the provider and shared with the awardee via e-mail (i.e., a provider-run EHR-based coverage report)

Appendix O

Multi-Site IQIP Site Visit



*Coverage goals and QI strategies selected may be same or different for each site

Appendix P
IQIP Resources:
Where to Find Them and How to Use Them

Location Key	
● - CDC's website	✚ - ISD Awardees SharePoint portal
■ - Other website	◆ - IQIP Database File Repository

Document/System	Location	Awardee Use	Provider Use
IQIP PROGRAM OVERVIEW AND RESOURCES			
2019 IQIP Operations Guide	✚◆	X	
Awardee IQIP Toolkit	✚	X	
Consultant IQIP Toolkit	✚◆	X	
IQIP FAQs	✚	X	
AFIX – IQIP Strategy Crosswalk	✚	X	
IQIP At-A-Glance	✚◆	X	X
Number of IQIP Site Visits Required by Awardee (PY1)	✚◆	X	
INTRODUCTION			
IQIP Requirements	✚	X	
"Provider Quality Improvement" chapter of CDC's Immunization Program Operations Manual (IPOM)	✚	X	
PROVIDER-LEVEL IMMUNIZATION QUALITY IMPROVEMENT: BACKGROUND AND OVERVIEW			
The Guide to Community Preventive Services (Community Guide) https://www.thecommunityguide.org/topic/vaccination	■	X	X
Advisory Committee on Immunization Practices' (ACIP) Recommended Child and Adolescent Immunization Schedule https://www.cdc.gov/vaccines/schedules/index.html	✚●	X	X
IQIP Timeline	✚	X	
IQIP Process Workflow	✚	X	
MODULE 2: ASSESSMENT REPORTS			
The American Immunization Registry Association (AIRA) Guidance on Managing Patient Active/Inactive Status (PAIS) https://repository.immregistries.org/files/resources/5835adc2dad8d/mirow_pais_full_guide.pdf	■✚	X	X
The American Immunization Registry Association (AIRA) AFIX-IIS Integration Operational and Technical Guidance for Implementing IIS-Based Coverage Assessment – Phase I and Phase II https://repository.immregistries.org/resource/afix-iis-integration-operational-and-technical-guidance-for-implementing-iis-based-coverage-assessme/from/major-iis-topics/CDC/	■✚	X	X

Document/System	Location	Awardee Use	Provider Use
4 Ways AIRA Supports the IIS Community https://repository.immregistries.org/resource/aira-iis-one-sheets/from/major-iis-topics/IIS-fundamentals/why-IIS/	■+	X	X
EHR and IIS – Their Differences and How They Work Together (infographic) https://repository.immregistries.org/resource/aira-iis-one-sheets/from/major-iis-topics/IIS-fundamentals/why-IIS/	■+	X	X
How IIS Support a Patient's Journey (infographic) https://repository.immregistries.org/resource/aira-iis-one-sheets/from/major-iis-topics/IIS-fundamentals/why-IIS/	■+	X	X
The Value of IIS (infographic) https://repository.immregistries.org/resource/aira-iis-one-sheets/from/major-iis-topics/IIS-fundamentals/why-IIS/	■+	X	X
IIS 101: The Basics https://repository.immregistries.org/resource/aira-iis-one-sheets/from/major-iis-topics/IIS-fundamentals/why-IIS/	■+	X	X
MODULE 3: DATA COLLECTION AND REPORTING			
IQIP Database User Guide	+◆	X	
MODULE 4: PRE-IQIP VISIT ACTIVITIES			
IQIP Preparation Checklists	+	X	
IQIP Site Visit Confirmation Letter Template	+	X	
IQIP Site Visit Form	+◆	X	
MODULE 5: SITE VISIT			
IQIP Site Visit Workflow	+	X	
Strategy Implementation Plan (SIP) Form	+◆	X	
Immunization Workflow Template	+	X	
IQIP Strategies and Example QI Activities for PY1	+	X	
HIPAA and Access to Patient Records during AFIX and VFC Visits https://www.cdc.gov/vaccines/imz-managers/laws/hipaa/qa-patient-recs-afix-vfc.html	+●	X	
MODULE 6: 2-MONTH AND 6-MONTH CHECK-INS			
IQIP Preparation Checklists	+	X	
Effective Communication for IQIP Consultants	+	X	
MODULE 7: 12-MONTH FOLLOW-UP			
IQIP Preparation Checklists	+	X	
MODULE 9: ALTERNATE QI PROGRAM CREDIT			
Alternate QI Program Submission Form	+◆	X	
MODULE 10: IQIP Program Management			
IQIP Consultant Training Plan – Sample	+	X	
IQIP Custom Strategy Submission Form	+◆	X	