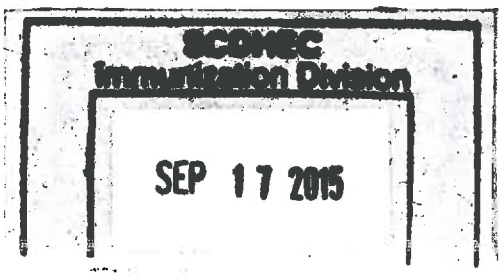
DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta, GA 30341-3724

September 1, 2015



Wendell Gullredge
SC Department of Health and Environmental Control
2100 Bull Street
Columbia, SC 29201

Dear Mr. Gullredge:

Enclosed please find the technical assistance site visit report for South Carolina immunization program site visit conducted March 16-18, 2015.

I want to thank the South Carolina Immunization Program staff for taking the time to discuss in great length all of the aspects of your program. I enjoyed my time with all of you and learned a great deal about the immunization program, your successes, and your unique challenges.

As you know, the purpose of the technical assistance site visit is to discuss program updates since the previous site visit, to assess progress toward implementing recommendations made during the previous site visit, and to provide additional recommendations on intervention strategies to improve program performance. The visit also provides an opportunity to provide technical assistance with preparing for and meeting the next grant application requirements.

After reviewing the report, please submit a response addressing any recommendations made during the visit within thirty(30) days after receipt of this report using the template provided at the end of the report.

I hope that you will find the recommendations in this report useful. Feel free to call me at 404-718-4547 or email me at eug4@cdc.gov if you have any questions about this report. Again, thank you for this opportunity.

Sincerely,

[redacted]

Colleen DiLiddo
Project Officer
Program Operations Branch, Immunization Services Division
National Center for Immunization and Respiratory Diseases
Centers for Disease Control and Prevention

2015 SITE VISIT REPORT FOR Click here to enter text.
Year Three of 2013-2017 Cooperative Agreement
Immunization Services Division
Program Operations Branch

Site Visit Date(s):	**Began:** 3/16/2015 **Ended:** 3/18/2015
Date Report Prepared:	7/21/2015
Awardee:	South Carolina
Recipients' Names:	**Principal Investigator (PI):** Leanne Bailey at the time of the visit. Currently, TBD. **Immunization Program Manager:** At the time of the visit, Leanne Bailey. Current CDC POC Wendell Gulledge **Others:** Virginie Daguise, Sherrell Stevens, Elhona Rhame, Rebecca Morrison
Grant Number:	5H23IP000778-03
Project Officer:	Colleen DiLiddo

Purpose of Visit:
The purpose of the 2015 site visit is to follow-up on past issues and recommendations, confirm continued progress and fulfillment of the cooperative agreement objectives, and to provide consultation and assistance concerning programmatic and technical matters.

Awardee Participants:
Leanne Bailey, Wendell Gulledge, Virginie Daguise, Sherrell Stevens, Eva Conley, Elhona Rhame, Rebecca Morrison, Rodney, Marya Barker, Dana Giurgiutiu, Brian Love, Roger Heck, Holly Gillam, Dakin MacPhail, Rodney Saylor, Clark Greene, Dana Gurley, Amelie Weems, Phyllis Beasley, Ron Griffin, Mike Elieff.

CDC Participants:
Colleen DiLiddo, Dan Martin, Carolyn Bridges, David Kim, LaDora Woods, Anna Dean, Andrew Kroger, Duane Kilgus, Nancy Fenlon, Sam Graticer, Jacqui Bagby, Tom Fitzgerald, Hanan Awwad, Rebel Jackson.

Key Items and Updates Discussed: *(This section highlights updates from the previous report and is intentionally brief. For a complete description of the work of this awardee, please also reference the 2013 and/or 2014 report(s).)*

Section I: Program Management
(eGrATIS Unit A Objectives)

ISD Cooperative Agreements/Grants Currently Awarded

Name	Grant Number	Project Period	Amount
317/VFC Cooperative Agreement	5H23IP000778-03	2013-2017	2014 Award: $4,773,627

Describe key highlights of the discussion of the 2015 Budget, including the Budget Technical Review.
The health department administration has been actively involved in budget management and is currently managing budget reviews. The quarterly budget review process for regions provides an update to the regional health director on their funds. The program receives monthly budget reports. The administration has improved the budget tracking process and is able to better track spending of funds by category and expense. The regional staff structure also better enables accountability for immunization program activities. All immunization program staff account for their time through the PCAS system with codes assigned to their work. A challenge reported is staff charging their time in 317 operations.

Describe how the program might use additional 317 funds if they became available.
The program indicated that they could use additional funds. CDC would need to be specific as possible in what they can be used for. The program expressed concern regarding the increased costs and recurring costs to maintain and upgrade the registry. The cost is a large burden for a smaller population/lower funded state as standard maintenance and enhancement costs are required of any sized state.

Describe the status of vacant FTEs as of the 2015 site visit.
At the time of the visit, the program manager position was becoming vacant. A nurse consultant, medical consultant, and regional medical director position were also vacant. A pivotal (44%) financial support position also became vacant.

Status of current vaccine spending (VFC, 317, state, CHIP).
The program expressed more concern and challenges regarding 317 funding for adults. They are working to identify activities to support the use of 317 DA funds that will not impact the state program if funds are reduced. They are working to expand the availability of vaccines in the adult program.

Other key points of discussion.
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Section II: Program Evaluation
(eGrATIS Unit B5 Objective)

Describe updates to the IPE Evaluation Team *(updates compared with the team as described in the 2014 Site Visit Report).*
NA

Describe updates to IPE 2014-2015 stakeholders *(updates compared with the team as described in the 2014 Site Visit Report).*
A new program manager and a medical consultant will start with the program.

Please answer the questions in this table:

IPE Data Collection Instruments (DCI) for Calendar Year 2015	Current Status (Submitted, In Progress, NA)	Challenges Experienced	Changes made as a result of the process related to or results of this DCI
DCI 4 - Progress Report, Planning, and Outcomes Survey	Submitted	NA	NA
DCI #5 – 2015 Awardee Vaccine SH Education and Training Policies and Activities Assessment Survey	NA	NA	NA
DCI #6 – Provider KABB Survey	NA	NA	NA

Describe questions or concerns about the upcoming Evaluation #2, which begins Jan. 2016 and ends Dec. 2017.
No questions.

How can CDC improve implementation and impact of IPE activities?
The program indicated that they liked the standardized process-they saw value in it in learning about their program and other programs. They indicated this was a primary reason for selecting the standardized HPV evaluation.

Other key points of discussion.
The program indicated that they are looking forward to understanding more why parents refuse HPV and the level of uptake with the provider recommendation for HPV.

Section III: Vaccines for Children

(eGrATIS Units A7, A8, C2, C3, C4 Objectives)

Describe the training received by VFC providers facilitated by or conducted by awardee staff.
In 2014, VFC providers received instructor led education in the four regions. If the providers did not attend training, they completed You Call the Shots. Providers with storage and handling incidents take "Keys to Storage and Handling." In 2015, You Call the Shots is included as a requirement for provider enrollment. Certificates are uploaded in the online enrollment system.

Describe the challenges and successes of providers regarding VFC eligibility screening and documentation.
Providers do agree to ensure VFC eligibility screening occurs. A challenge now is EMRs and how eligibility is documented and maintained.

Describe the progress and status of unannounced visits.
The program conducts unannounced visits. The visits are prioritized by region and identified through previous incidents. In 2014, 41 incidents were assessed to prioritize visits. The program reported they are finding issues mostly with combo-units, unreported excursions, and uncalibrated thermometers.

For awardees using the vaccine replacement model with a sub-set of providers (replacement of private stock used for VFC-eligible children), please describe the process used to ensure accountability of the VFC vaccine.
NA

Describe which CDC recommendations (not requirements) are being incorporated as requirements.
The program is not able to institute CDC recommendations as requirements and noted that as it's important to have time to prepare to institute requirements, but CDC must institute requirements if the evidence supports the needs to enable programs to institute requirements.

Describe any apparent discrepancies between policies as written in the VFC Policy Collection Tool and policies as understood through discussion with the awardee.
None noted.

Other key points of discussion
The EXIS in development is not actually part of the registry and a stand alone system. We also discussed the site visit review guide, the importance of having a conversation and providing good education, while maintaining the standards of the guide.

Section IV: Immunization Information Systems
(eGrATIS Unit D Objectives)

South Carolina reported that they do not use most IIS data yet because their registry is still "immature." A major barrier to South Carolina's use of data is because all immunizations reported through HL7 interfaces are coded as "historical" rather than "administered". Only the direct-entry interface has the ability to differentiate administered and historical doses. A major consequence of this coding error is that during AFIX visits, patients who should be considered "owned" by the provider are shown as "owned" by the last provider who direct-entered data, usually the health department clinic. At the time of the visit, the program expected that this problem will be corrected for new data only, later in 2015 (date uncertain) when the new HL7 2.5.1 interface and web service go live.

Another barrier is the existence of a large number of duplicate records. The overall result is a dataset that is not considered accurate information by the primary users, immunization providers and the health departments.

As of January 2015, 857 provider sites were enrolled for electronic submission and 433 for direct-entry (some providers are registered both way, these are not deduplicated). SC did not have numbers on reporting volume readily available, although they may be able to provide this information in the future.
The program indicated substantial increases in flu doses reported year over year which was presumed to be because of to electronic reporting, however, the data was not available to determine.

The program reported that HL7 2.5.1 will roll out some time mid-year, but this will only happen after the vaccine ordering online gets rolled out which did not have a hard deadline, however, the program did express confidence that the rollout will happen during 2015.
Bidirectional exchange is already in-process with HL7 2.3.1, and an estimated 30-40 sites have this capacity. Further discussion suggested that this is mostly technical capacity as SC staff were not aware of providers making substantial use of query functionality.

SC has a web service now in limited use, but this service is only internal between a MIRTH appliance (which receives incoming HL7 2.3.1 messages) and the registry. The previously-mentioned HL7 2.5.1 rollout will include a public-facing web service and a phasing out of the MIRTH appliance; however, SC is not really considering the CDC WSDL at this time. No specific clarification for this decision was offered. IISSB recommended developing a crosswalk document to clearly delineate the differences between SC's new web service and the CDC WSDL recommendation, in order to facilitate onboarding of EHR systems that have already built to the WSDL in other states.

SC has an Implementation Guide and test plan to provide to EHR vendors ... AllScripts, Amazing Charts, Epic, eCW, Meditech, Athena, PracticeFusion are common connections; Athena is one of the most successful.
SC reported conducting a "cursory overview" of their IIS' status according to the Functional Standards the week prior to the visit, but the action did not produce a document identifying gaps for planning.

SC has had a mandatory reporting requirement since it was legislated in 2010 and regulations drafted in 2013. The regulation is taking effect in phases until it covers the lifespan January 2017, but currently (CY 2015) ages <=6 and >=66 must be reported.

SC does not have a proper denominator to evaluate provider participation. Currently, they have not assessed the proportion of VFC providers who participate in the registry and the proportion is assumed low. They do not capture provider (administering or ordering) with their data at this time, so it is possible for a single data connection to represent anything from a solitary provider to a multi-provider group. We discussed that capturing ordering or administering provider (both in the recommended data elements) would allow for better assessment of participating providers.

To date, SC has not done any formal assessments on data quality. Program personnel are acutely aware of problems both with data incompleteness and duplicate entries, but they do not have any quantifiable data to substantiate the magnitude of the problem. As a practical matter, person-level deduplication still cannot be done due to link to the CARES system and inability to do any automated duplicate resolution (this issue was pointed out in the IISSB site visit of April 2013). Although it appears that in principle SC has agreed to separate CARES and the IIS, there has been little progress to date on this concern due to the many issues surrounding this separation still to be decided.
SC is unable to do IIS-based coverage assessments with current data. They have tried a few reminder/recall efforts recently, but without a formal follow-up or tracking mechanism they have not been able to show evidence of effect.

The program reported continued discussion with vital records however, there is still not commitment to ensure development of enhanced IIS including linkage to vital records to generate records for new births.

SC expects to roll out their VTrckS/ExIS interface and Inventory module "SCI-Vaccines" in August 2015. They will begin by making it available to DHEC clinics only, and will evaluate success with those public clinics before rolling to outside VFC providers (hopefully before end of year). SCI-Vaccines will track public vaccine only. The system will not auto-decrement inventory on the basis of doses reported, as it is not envisioned to be linked to the existing registry functionality. Dose-level eligibility will be captured as part of the new web service, but is now captured on direct-entry only.

Despite a high level of effort and the use of significant federal resources to maintain and enhance the IIS, the actual level of functionality for the IIS that was reported causes concern. After the site visit, the IIS consultant and project officer reviewed the IIS consultant's site visit report in 2013 and many of the recommendations remain true. Below is a list of recommendations that will also be noted at the end of this report. Repeat recommendations from 2013 are noted.

Additionally, since the time of the site visit, the Immunization Services Division has engaged South Carolina to provide focused support to improve the data quality and IIS functional. In 2013, South Carolina did not meet major ISSAR

indicators, South Carolina has an antiquated IIS built on an outdated software platform, and substantial progress is needed to reach a fully-functional system.

1. Perform a complete assessment (with an independent evaluator if necessary) of CARES/SCI-IIS to:
    a. Perform a gap analysis to assess existing functionality with the IIS Functional Standards (see http://www.cdc.gov/vaccines/programs/iis/func-stds.pdf)
    b. Assess the potential costs of upgrading/rewriting existing systems (including separation of CARES and IIS as discussed below, and complete removal of dependence on Citrix for all clinical users) to meet identified gaps, vs. replacing the existing system with a commercially-available IIS
    Note: Recently, awardees that have completed similar assessments such have opted to replace their existing system with commercially-available IIS as it was more efficient and cost effective to do so.

    This recommendation is a clarification of Recommendation 2 from IISSB visit in 2013

2. Prioritize separation of CARES and IIS in order to enable Immunization Program to resolve duplicate issues. *This recommendation is a repeat of Recommendation 1, especially 1a, from IISSB visit in 2013*

3. Correct the mis-coding of HL7-reported immunizations as "historical" rather than "administered."

4. Develop and publish a crosswalk document clarifying the differences between SC's web service WSDL and the CDC-recommended one. Unless there are clear business or legal reasons for the differences identified, establish a timeline for moving to the CDC-recommended WSDL to minimize unnecessary customization by EHR systems attempting to report/query.

5. Establish a plan and timeline for on-boarding all VFC providers to use IIS.

6. Disable vaccine validator override in existing IIS forecaster, even before new forecaster is implemented. *This was recommendation 7 in 2013 site visit.*

7. Modify coding of non-permanent contraindications so they can expire and not be displayed. *This was recommendation 8 in 2013 site visit.*

8. Take necessary legal and technical steps to permit Vital Records to create records, not merely receive "pings" from IIS as described in both 2014 and 2015 site visit calls. *This was part of recommendation 11 in 2013 site visit.*

9. Consider revising Vital Records process to include capturing birth dose of Hepatitis B. This is obviously subject to implementation of (8) above. *This was part of recommendation 11 in 2013 site visit.*

10. Establish an IIS users' group including key external stakeholders. *This was recommendation 12 in 2013 site visit.*

Section V: Preparedness

(eGrATIS Unit E Objectives)

Who is the lead for coordinating pandemic preparedness in your immunization program? (Please provide name) What other duties is this person responsible for?

Rebecca Morrison, APRN, MSN, FNP-BC

- Adult/ Adolescent/ Childhood Immunization, Influenza, Annual Certificate of Immunization training
- Standing Orders, Policies, Eligibility Tables, Educational Programs, Brand Choice, Constituent/ Provider inquiries, media inquiries.
- Back-up for DHEC Nursing in EOC

DHEC has a State Pandemic Influenza Plan that is scheduled for annual coordinated by the Office of Public Health Preparedness coordinates updating of this plan. Vaccine prioritization is based on CDC's recommendations. The plan was last reviewed and modified in January 2015. The program is maintains Tier 1 critical infrastructure numbers. DHEC would develop tiered plans for use of pandemic vaccine using CDC's recommended targeted population groups and/or tiers. The current plan is based on CDC-identified priority groups.

As per the State Pandemic Influenza Plan, the SC Department of Public Safety and the State Law Enforcement Division will assist in vaccine security during transport, storage and at the clinics. Security at local Regional Distribution Sites and PODs is also provided by local law enforcement. These groups are also be involved in plan development and modification, as necessary.

Security identification is accomplished by roster and verification of identity by SCDHEC identification, Medical Reserve Corps, response partner support agency identification badge or other government issued identification. Administrative Support personnel assist with security at the Distribution and Dispensing sites with verifying credentials and identification of all response personnel. This process is accomplished by the use of pre-developed rosters checked against government issued picture identification. Onsite area access badges are color coded in accordance with State SNS SOP badging system.

SCDHEC plans incorporate the use of open and closed PODS. SCDHEC has 47 closed PODS with current, signed MOAs. Additional closed PODS are constantly being recruited. Closed PODS are staffed entirely by that facility's staff. The closed PODS are responsible for signing a Volunteer Entity Agreement, developing their individual closed POD plans, identifying, verifying, training and assigning personnel to implement the plan. Closed POD representatives are expected to participate in regional emergency response planning and to participate in exercises at least annually. The closed POD agreements include addressing the delivery of medicines and vaccines to the appropriate personnel. For each event, the prioritized/appropriate recipients would be specified.

Describe the aspects of pandemic influenza vaccine response/planning for which the immunization program is primarily responsible (i.e., the lead for planning/operation).

Point of Dispensing (POD) planning

The Office of Public Health Preparedness (OPHP) is primarily responsible and identifies and establishes the PODS for events in which mass dispensing of vaccines would be needed. OPHP works closely with the Immunization Division and the Office of Nursing/ Client Services.

School-located vaccination (SLV) planning

SLV clinics are conducted annually. This fosters a partnership with the schools that will be beneficial in a pandemic situation. Influenza clinics are held in the fall/winter (mid September through January [second dose clinics]) for all

students. Tdap clinics are held in the spring for 6th grade students in preparation for the 7th grade Tdap requirement.

DHEC works with VaxCare Corporation to provide flu vaccine in SLVCs. DHEC provides VFC and State program vaccines and VaxCare provides vaccine for insured students (all doses administered by DHEC nurses). All forms (consent forms, parent letters, etc) developed by Central Office and revised yearly as necessary. Regions are responsible to identify staff for clinics. The Regional Immunization Program Nurse Manager and staff set up and manage the SLVCs in their region. Weekly conference calls to discuss regional updates and any issues/concerns are held with regions, Central office and VaxCare participating.

Vaccine ordering
It is anticipated that SCIPAS would be used for ordering pandemic vaccine electronically (similar to ordering for VFC). The system is not yet completed.

Vaccine allocation
Vaccine allocation would be based on the disease target population and providers that serve that population (as was done during H1N1). Identification of provider type would be done through pandemic enrollment. Currently, we can identify specialty providers through VFC only. SCI Registry does not collect provider type data.

Vaccine administration reporting
Reporting would be done through South Carolina IIS.

Use of IIS among new providers
New providers would enroll using SCIPAS.

Provider recruitment
Provider recruitment would depend on the demand for the vaccine. The Immunization Division would participate in DHEC agency endeavors to recruit vaccinators, as needed. In H1N1, the division was involved in the bid process for hiring mass vaccinators as well. This would be a joint effort with the Preparedness Division and the Office of Nursing/ Client Services.

Enrolling adult providers
The Immunization Division would use the IIS as a resource for identifying adult providers.

Coordinating with pharmacies
The Immunization Division would use contacts with chain pharmacies, the pharmacy retail association and the pharmacy division of the Labor and Licensing board to develop a coordinated effort to enroll these providers and distribute vaccines to them.

Communications
The Immunization Division would work in conjunction with the DHEC Communications staff.

Emergency Operations Center (EOC) logistics
The Immunization Division has a Nurse Consultant (R. Morrison) that serves as back-up for EOC Nursing section (Operations & Planning) and is ICS trained.

Describe the specific issues your program considers most challenging or unresolved in preparing for vaccine management during a severe pandemic.
None reported.

In a severe pandemic, in addition to using Point of Dispensing (POD) sites and other mass vaccination clinics, potentially three to four times more providers than during H1N1 may be needed in order to rapidly administer vaccinations to the public. Given this potential for more providers and the need to process their orders, what plans do you have or actions have you taken to prepare for managing this large volume of provider orders and their allocations?
Use of the SCIPAS system will be valuable for enrollment, ordering and documentation of doses. This system was developed based on an electronic provider enrollment system developed as a result of H1N1. The Immunization Division is currently using the system for enrollment and documentation of doses; this groundwork will be helpful in expanding development of the same system for pandemic use. The ordering portion is anticipated to be deployed in August 2015.

It should be noted that the mandatory requirement for immunization dose recording to the IIS will also be helpful. Although this is not effective for all age groups until 2017, it will be helpful in identifying potential vaccinators. We may need to add "provider type" to the IIS to assist with this objective.

In a severe pandemic, if a decision is made to rapidly vaccinate all Tier 1 critical infrastructure personnel (critical healthcare/public health personnel, EMS/fire/police) with an available stockpiled pandemic vaccine, what challenges would your program and partners face in completing this task within 4 weeks of vaccine being available for distribution ? (Assume appropriate hypothetical stockpiled vaccine already available and distribution to start within 8 weeks of a decision to use the stockpiled vaccine).

DHEC has a State Pandemic Influenza Plan that is scheduled for annual update. The Office of Public Health Preparedness coordinates updating of this plan. Vaccine prioritization is based on CDC's recommendations. The plan was last reviewed and modified in January 2015.

Tier 1 critical infrastructure are in your jurisdiction is noted as follows:

EMTs (all levels):	9,981
Firefighters (all levels):	17,000
Physicians (statewide):	11,373
Pediatricians:	835
Internal Medicine Physicians:	1,345
Family Practice Physicians:	1,807
Nurses:	24,046
Public Health staff:	3,100

DHEC would develop tiered plans for use of pandemic vaccine using CDC's recommended targeted population groups and/or tiers. The current plan is based on CDC-identified priority groups.

As per the State Pandemic Influenza Plan, the SC Department of Public Safety and the State Law Enforcement Division will assist in vaccine security during transport, storage and at the clinics. Security at local Regional Distribution Sites and PODs is also provided by local law enforcement. These groups are also be involved in plan development and modification, as necessary.

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credentials and identification of all response personnel. This process is accomplished by the use of pre-developed rosters checked against government issued picture identification. Onsite area access badges are color coded in accordance with State SNS SOP badging system.

SCDHEC plans incorporate the use of open and closed PODS. SCDHEC has 47 closed PODS with current, signed MOAs. Additional closed PODS are constantly being recruited.

Closed PODS are staffed entirely by that facility's staff. The closed PODS are responsible for signing a Volunteer Entity Agreement, developing their individual closed POD plans, identifying, verifying, training and assigning personnel to implement the plan. Closed POD representatives are expected to participate in regional emergency response planning and to participate in exercises at least annually.

The closed POD agreements include addressing the delivery of medicines and vaccines to the appropriate personnel. For each event, the prioritized/appropriate recipients would be specified.

Other key points of discussion
Click here to enter text.

Section VI: American Indian/Alaska Native
(eGrATIS Unit C1 Objective)

The program reported that there is a new health contact on the reservation and a new VFC coordinator. The program is able to collaborate with the health contact to coordinate events. Some health fair services such as flu vaccine has been expanded to include spouses who are not on the role. Head start-flu shots available to all. They are also working to see if a WIC satellite clinic could be located at community center, but community center on the reservation-may not have enough children. The population on the reservation is very small and the health department remains engaged to ensure they are supporting the clinic in providing needed services.

Section VII: Education and Partnerships
(eGrATIS Unit B1 Objectives)

Describe your communication strategies and collaborative efforts with partners.
The program has worked with AAP to promote HPV vaccination and continues its work with the birth outcomes initiative. They have worked with the Cervical Cancer Free Initiative, but haven't yet worked with ACS. The program also works with partners through HAN. They also have worked with the hospital association and promoted the availability of 317 Tdap use for uninsured adults.

Describe your educational programs, or education collaborations, targeted toward immunization providers.
The program continues its education and training for VFC providers. The program also has the annual certificate training for school nurses which is required to complete for access to the registry. The nurse consultant does other trainings as requested from partners and professional organizations.

Annual Certificate of Immunization Training

The Certificate of Immunization Training is time-intensive project that is conducted annually. A manual is created for this training which has proven to be used by DHEC staff and school nurses frequently.

The purpose of the training is to ensure that DHEC staff and school nurses have an understanding of immunizations so that they are able to complete the SC Certificate of Immunization. There is a train-the-trainer session with a powerpoint presentation. The same presentation is given statewide to allow for consistency. Continuing education credit (nursing CEUs and pharmacology CEUs are provided).

The manual contains many of the up-to-date documents used frequently in the immunization program - including legal references and CDC schedules.

A pre-test and post-test are required for this training with a passing score.

As mentioned, a manual, learner packet and presenter packet are created for this training program.

Other key points of discussion.
Click here to enter text.

Section VIII: Surveillance

(eGrATIS Unit B4 Objectives)

The program reported that they expected to launch their new surveillance system in April. Users having training close to go-live. Case management will be added to perinatal hep B system. The vaccine section will be stronger with bidirectional interface between SCION and registry. They will incorporating public message mapping guides into build. Despite CDC's efforts and the new system, CDC cannot receive all messages. SC will needs to back-track to send messages and later, will need to do new messaging when CDC is able to receive messages. The new system will enable SC to use data to compare national findings to regional data.

We also discussed surveillance in other states, metrics, and BRFFS data for adult vaccines.

Section IX: Adolescent

(eGrATIS Unit B1 Objectives)

Describe activities to improve and/or sustain vaccination coverage levels and reduce disparities among adolescents for <u>all</u> ACIP-recommended vaccines.
Note: Helen Huber, Nurse Consultant, retired. One of her focus areas was adolescent vaccines.

<u>HPV Standing Order</u>
The HPV Standing Order was modified in June 2014 to add "Pediatric Federal 317" eligibility category for the underinsured population. HPV is not available in the State vaccine program. DHEC currently offers Gardasil and Cervarix. DHEC can provider HPV to VFC, underinsured and fully insured adolescents.

<u>SCLV</u>

School-located vaccination clinics (SLVCs) have continued. SLV clinics are conducted annually. This fosters a partnership with the schools that is beneficial in reaching the target population. Influenza clinics are held in the fall/winter (mid September through January [second dose clinics]) for all students. Tdap clinics are held in the spring for 6th grade students in preparation for the 7th grade Tdap requirement.

DHEC works with VaxCare Corporation to provide flu vaccine in SLVCs. DHEC provides VFC and State program vaccines and VaxCare provides vaccine for insured students (all doses administered by DHEC nurses). All forms (consent forms, parent letters, etc) developed by Central Office and revised yearly as necessary. Regions are responsible to identify staff for clinics. The Regional Immunization Program Nurse Manager and staff set up and manage the SLVCs in their region. Weekly conference calls to discuss regional updates and any issues/concerns are held with regions, Central office and VaxCare participating.

The Tdap clinics this year are being offered to both public and private schools for 2015.

Adolescent Educational Materials

- "7th Grade Rule for School" Postcard: Promotes Tdap 7th grade requirement as well as compliment vaccines for this age group including flu, meningococcal vaccine and HPV. In 2014, a total of 60,332 were shipped to primarily to school nurses.

- HPV CDC flyer approved for distribution by DHEC staff. Flyer incorporated into DHEC Communications Library in 2014.

- "Protect Your Pre-Tee/Teen With Vaccines" - distributed post-vaccination at SLVCs to promote other adolescent vaccines.

Describe any challenges or barriers to conducting these activities effectively.

Currently, state funds are not provided for HPV vaccine for underinsured or non-VFC eligible children. Although this has been temporarily addressed with Federal 317 funds, lack of state support for all ACIP recommended vaccines for adolescents creates a barrier.

Describe activities to improve vaccination coverage levels and reduce disparities among adolescents for HPV vaccine specifically.

Mobilizing partners & stakeholders: Academic Pediatric Association (APA), American Academy of Pediatrics (AAP), American Cancer Society (ACA), National AHEC (Area Health Education Center) organization, NACCHO.

Strengthening provider commitment recommendations.

Increasing or capitalizing on existing communications opportunities to promote HPV vaccination and using these opportunities to increase recognition of HPV vaccination as cancer prevention.

Promoting awareness of data supporting vaccine safety.

Using system approaches to increase coverage.

Using new or existing school immunization requirements for other vaccines to ensure timely completion of the HPV vaccination series.

Describe any challenges or barriers to conducting these activities effectively.

Currently, state funds are not provided for HPV vaccine for underinsured or non-VFC eligible children. Although this temporarily supported by 317 funds, lack of state support for all ACIP recommended vaccines for adolescents creates a barrier.

Please provide feedback regarding the HPV resources available from CDC.

PSAs

"Jackie's Story" - very good. May want to delete the "daughter only" PSA to avoid confusion as we need to promote for both girls and boys.

Podcasts

"Why HPV Vaccine is Important to My Family: The Story of a Cervical Cancer Survivor" - very effective as it provides personal story and implications of cancer as well as preventive measure of vaccine for her children.

Print Materials

Flyer of boy jumping into lake is great. We have added the DHEC logo and it is in our Communications Library for distribution, as needed.

Other key points of discussion.

The discussion also included that SC is considering ideas for what can be evaluated for HPV in SC. A standard evaluation for HPV will identify the areas SC is not implementing to achieve increased coverage. The program sees the evaluation as an opportunity to gain a better understanding of why parents are choosing not to vaccinate. Currently, SC has a bill before the legislature to include HPV in the program, however the bill adds consent for HPV vaccine unlike the other adolescent vaccines. The program indicated that Cervical Cancer Free SC is a strong supporter and most of the ground gained is much attributed to their efforts.

Section X: Perinatal Hepatitis B

(eGrATIS Unit C5 Objectives)

Identification of HBs-Ag positive pregnant women

	Birth Cohort 2012	
	Awardee	U.S.
Number of Births to HBsAg-positive women identified	80	
Number of Expected Births** (point estimate)	251	
Percent of Expected Births identified (identified/point estimate)	32%	47%
Number of Expected Births** (Lower Limits)	134	
Percent of Expected Births identified (identified/lower limit)	60%	65%

Source: 2012 Peritable

Post-exposure Prophylaxis (PEP) and Series Completion

	Birth Cohort 2012	
	Awardee	U.S.
PEP	96%	96%
HBIG and Series Complete	86%	84%

Source: 2012 Peritable

Key points of discussion regarding the Perinatal Hepatitis B Program (based on above two tables).
Click here to enter text.

Post-Vaccination Serologic Testing (PVST)

	Birth Cohort 2012	
	Awardee	U.S.
Percent of all PHBPP enrollees completing PVST by end of reporting period one	57%	63%

Source: 2012 Peritable

Key points of discussion regarding PVST (based on above table)

Surveillance Capabilities increased to identify qualifiers for gender and age of system to follow-up to see based on gender and age.

Other activities that are being planned.

- Surveillance system-will notify regional immunization coordinators.
- Match with vital records to ensure they are capturing all births-capture/recapture.
- Electronic birth certificate reporting plus what they got-record review with birthing hospitals-discuss what's going on with perinatal hep B. Found that more than what they thought getting birthdose. Some hospital reporting not being done correctly in electronic records.

It was noted that the regional structure has supported the ability to case management and that is reflected in improved data. It was suggested to look into those missing PEP by looking at specific hospitals to see if there's a common denominator.

Section XI: AFIX

(eGrATIS Units B1, B3 Objectives)

Please describe areas of the AFIX program for which the awardee would like additional technical assistance.
The program made the following suggestions:
AFIX update on training call-online tool
AFIX policy and procedure guide. The program suggested a PAPA application.
Preparing site visit checklist, documents to prepare for and leave with provider.
AFIX program overview-to give provider
QI action plan
Follow-up plan-instruction guide on how to do follow-up session-will give these next week.

Other key points of discussion.
120-working towards goal and would not anticipate not meeting. The main point of the AFIX discussion was the state of the IIS and the inability to obtain accurate information for coverage assessments because of the reporting of historical doses and duplicate records. The ineffectiveness of the IIS is creating an ineffective AFIX program for South

Carolina. Until the IIS issues are resolved, South Carolina's AFIX program will resort back to a time when registries did not exist and field staff will need to pull paper records. This creates great inefficiencies for the program and is not a sound use of resources. The federally supported IIS issues must be addressed to support the program to meet federal requirements.

Section XII: Adult
(eGrATIS Unit B1 Objectives)

Describe the awardee's knowledge, use, and planned implementation of the updated Adult Immunization Standards.
(http://www.hhs.gov/nvpo/nvac/reports/nvacstandards.pdf. *The standards emphasize the importance of routine assessment of vaccination status and provider recommendation for adult vaccines. It outlines responsibilities for healthcare providers, public health departments and medical specialty organizations to ensure effective evidence-based efforts to increase adult immunization rates).*
The program disseminated the standards last year and have not done follow-up since. It was suggested that the program disseminate the standards annually with follow-ups to onboarding to the IIS, new recommendations, etc. Some partners/activities that programs have had success with are the state board of pharmacy, American College of Physicians, AFIX through maintenance of certification-use providers to do AFIX-free module available, OBGYN-state chapters. The program indicated that there's a Bill before legislature-expanding bill to allow pharms to give to expand to age 12. Pharms are reporting to registry. The BOI also has an initiative targeting adults to reduce pre-mature births and the program is working with this group to talk about vaccination of pregnant women and cocooning.

Describe plans to increase awareness of adult vaccination among adults and increase provider assessment and recommendations of vaccines for adults.

Continued relationship with the South Carolina Hospital Association (ie. regular conference calls throughout influenza season). Reaches infectious disease representatives from hospitals throughout the state.

Reference to above email letter to adult immunization providers.

Continued relationship with CCME and communications efforts. The 2013-2014 campaign has included two meetings of the SC Coalition for Older Adult Immunizations (SCCOAI) held in the Fall (10/4/2013) and Spring (May 29, 2014); radio public service announcements (PSA) for influenza, pneumococcal, shingles and pertussis; news release completed featuring information regarding the flu campaign and directing people to the DHEC flu website; promotion of DHEC print materials including influenza brochure with pneumonia fact sheet insert, bookmarks, wallet cards and posters.

Outreach: Intra-agency orders of influenza CDC flyers include distribution to adults - healthcare workers, high-risk groups, etc. The flyers went to Vital Records (120), Cancer Prevention (300), Diabetes (675), STD/HIV (78), Employee Health (1400), Birth Outcomes Initiative Group (300), Environmental Quality Control (6000), Health Licensing (1000), Community Systems (2000), Family Planning (230) and WIC (114,115). Additionally, 4477 went to schools.

Signage for DHEC influenza clinics placed in each clinic to ensure clients award of importance to receive influenza and the availability of the vaccine at that clinic site.

DHEC Flu Watch available at DHEC website - provides national and SC information regarding influenza from an epidemiology perspective.

What challenges do you have in identifying adult immunization partners who know or currently reach targeted adult populations?

Challenge in reaching Internal Medicine groups.

What challenges do you have in accessing adult populations needing vaccines?

Adult population (working well) do not typically seek preventive medical care.

Describe existing activities for administering vaccines to adults by public health or supplying other providers with vaccines for adults.

What systems or programs do you have in place to assist with providing vaccine to adults and adult providers?

DHEC's standing orders include vaccination of adults. DHEC's Flu Website contains FluFinder and HealthMap Vaccine Finder.

Currently, DHEC has an Adult Immunization Program and a Fee-for-Service Immunization Program. The Adult Immunization Program offers vaccines to persons who are 19 years of age and older AND are uninsured and underinsured. The following vaccines are included in the Adult Immunization Program: influenza, pneumococcal (PPSV23), Td, Tdap and HepatitisA/Hepatitis B (Twinrix). The Fee-for-Service program includes influenza, pneumococcal (PPSV23), Td, Tdap, Hepatitis A, Hepatitis B, Varicella, MMR, meningococcal (MCV4) and HPV.

DHEC offers vaccines (including influenza) to DHEC employees free of charge.

Vaccines provided to Adult Vaccine Initiative and Free Clinics during 2014 include (Eva Conley):

- Adult Vaccine Initiative Sites (Tdap or Twinrix for uninsured and underinsured). MOA from 9/2014-9/2015. 81 sites participated. Total of 18,060 doses of vaccine shipped to the sites which they continue to use until expiration. 6,790 Twinrix in 2014 shipped. 11,270 Tdap in 2014 shipped.
- The State Prison participated in the AVI initiative.
- Free Clinic Sites received influenza vaccine for underinsured and uninsured for the 2014-2015 season. 27 sites and 5,560 influenza doses. The State Prison also received 1,270 doses of influenza vaccine.

What challenges do you have in developing a plan to use vaccine purchase funds for adult vaccines?

Due to the uncertainty of the amount of federal 317 vaccine funds available each year and in the future, long range plans and ongoing vaccine specific activities for adults is not possible. Internal agency approval is needed as part of the process for use of federal 317 vaccine funds for new adult activities.

Describe plans or activities to decrease racial and ethnic disparities in vaccination rates among adults.

The Fee-for-Service Vaccine Program was implemented August 1, 2014 making vaccines available in each county for adults. The program vaccines include Hepatitis A, Hepatitis B, MMR, PPSV23, Varicella, Td, Tdap, MCV4, HPV, and influenza.

DHEC's influenza webpage contains CDC links to condition-specific information (including information for Chronic Disease clients).

Describe activities and challenges with onboarding adult providers so that they can access and enter adult vaccinations into your Immunization Information System (IIS).
DHEC provides EHR companies and/or providers with the information required to submit HL7 test messages to the registry and reviewing test submissions and providing feedback. If the test is successful, the feedback is information required to move the transmissions to production. If the test is unsuccessful, the feedback becomes suggestions for troubleshooting problems.

Describe how you are currently staffing work on adult immunization activities. Please estimate the number of FTE time that is spent on adult immunizations in your program.
One nursing consultant has been designated as the Adult Immunization Coordinator. Some adult immunization work activities are also shared with other nursing consultant. A total of 20% of an FTE is spent on adult immunization activities.

What's the name of the main adult immunization contact in your program?

Rebecca Morrison - adult immunization is a portion of job duties

Are adult immunization activities part of an adult immunization-specific program or part of the overall immunization program?

Part of the overall immunization program.

Other key points of discussion.
Other ideas regarding raising awareness of adult immunization included discussion about the Adult Summit and resources created. Currently a one-pager is in draft about why the IIS is a benefit to adult providers. MN has been doing a lot of work making IIS attractive to pharmacists. Recent example-Measles and need to understand specific status. –Opportunity to promote. Two Pneumococcal-who has received what and when...using schedule as example. We discussed the complications with occupational health and reporting vaccines since a separate system is usually maintained for confidentiality. The program also indicated increased reporting for flu in adults. At the time of the visit the program had not analyzed the data to explain the increase.

2015 Site Visit Summary and Recommendations

Areas of Strength *(Project Officer observation):*

- The program has an exceptional staff team that know what they need to achieve program goals and exceed them.
- The program continues to improve and enhance the VFC program. The investment in portable laptops and wifi will enable VFC compliance visits to be done in real time.
- The program was successful in launching online VFC provider enrollment for 2015 enrollment.
- Perinatal Hep B activities remain strong and are enhanced by the newer regional structure of Immunization focused staff. The new surveillance system will also enhance activities.
- South Carolina has a well-connected and collaborative partnership between the Immunization and Preparedness program.
- The Immunization program continues strong partnership work and leverages partnerships to achieve program goals.

Operational or Programmatic Challenges *(challenges outside the direct control of the Program)*:

- The program manager vacancy is significant and can impede program progress if not addressed in the short term. The program manager also requires executive leadership support to continue to advance the program. Currently, most of the programmatic challenges reside with the functionality of the IIS. It will require the leadership and commitment of DHEC senior leadership to achieve the functional standards of the Immunization Information System.
- The School Located Vaccine Clinics successfully supported South Carolina in instituting its new school Tdap mandate for 7th graders. The program reported less uptake of the SLVCs most likely due to children receiving vaccine at their providers' offices now that the mandate is not new. Not all ACIP recommended vaccines at offered at SLVCs which attributes to South Carolina's missed opportunities for providing HPV vaccine.
- The report out of the IIS and 2014 IISAR indicates that the program is not achieving functional standards and has in fact had challenges that have impacted the program's ability to meet federal cooperative agreement requirements. In particular, the AFIX program is in jeopardy because of the state of the IIS. Reporting of all EHR doses as historical doses and the duplicate records due to linkages with the public health clinic record system has created risk for the program. Additionally, the lack of support to link directly to vital records does not allow the program to achieve the functional standards.
- It is unclear if the program has an established IIS Manager role established with one staff member, who reports to the program manager, who oversees the management, operations, and development of the IIS as a whole. In the current staffing structure, it appears that staff

take lead roles in different aspects of the management of the IIS, such as marketing and training, data management, and IT development and there is not one person who oversees this system which is the standard practice for immunization programs.

2015 Recommendations:

Topic Area	Sub-Topic	2015 Recommendation	Project Officer Comments
General	Program Management	Prioritize filling the vacancy of the program manager.	
Immunization Information Systems (IIS)	Program Management	Establish an IIS Manager position who is responsible for overseeing all aspects of the IIS and reports to the program manager. This person would also serve as the primary contact to the IISSB consultant and have unique set of skills. South Carolina would benefit from a management level staff person who can support the program manager by overseeing the day-to-day operations, planning, and development of the IIS.	Sample job descriptions have been collected and developed by AIRA and PHII and more information can be provided by the IISSB consultant and the project officer.
Immunization Information Systems (IIS)	Program Planning	Perform a complete assessment (with an independent evaluator if necessary) of CARES/SCI-IIS to: a. Perform a gap analysis to assess existing functionality with the IIS Functional Standards (see http://www.cdc.gov/vaccines/programs/iis/func-stds.pdf) b. Assess the potential costs of upgrading/rewriting existing systems (including separation of CARES and IIS as discussed below, and complete removal of dependence on Citrix for all clinical users) to meet identified gaps, vs. replacing the existing system with a commercially-available IIS	In recent years, awardees that have completed similar assessments such have opted to replace their existing system with commercially-available IIS as it was more efficient and cost effective to do so. *This recommendation is a clarification of Recommendation 2 from IISSB visit in 2013*

Immunization Information Systems (IIS)	Program Management	Prioritize separation of CARES and IIS in order to enable Immunization Program to resolve duplicate issues. The duplication issues caused by CARES continues to impact the validity of all data collected in the IIS.	*This recommendation is a repeat of Recommendation 1, especially 1a, from IISSB visit in 2013* This issue also impacts the effectiveness of the South Carolina immunization program. The programmatic resources including skilled staff who are expected to advance programmatic goals are not fully utilized because they are compensating for the issues of the IIS in their day-to-day activities.
Immunization Information Systems (IIS)	Program Management	Correct the mis-coding of HL7-reported immunizations as "historical" rather than "administered."	This issue also impacts the effectiveness of the immunization program and is preventing SC from achieving AFIX requirements. The programmatic resources including skilled staff who are expected to advance programmatic goals are not fully utilized because they are compensating for the issues of the IIS in their day-to-day activities.
Immunization Information Systems (IIS)	Program Planning	Develop and publish a crosswalk document clarifying the differences between SC's web service WSDL and the CDC-recommended one. Unless there are clear business or legal reasons for the differences identified, establish a timeline for moving to the CDC-recommended WSDL to minimize unnecessary customization by EHR systems attempting to report/query.	
Immunization Information Systems (IIS)	Program Management	Establish a plan and timeline for on-boarding all VFC providers to use IIS.	

Immunization Information Systems (IIS)	Program Management	Disable vaccine validator override in existing IIS forecaster, even before new forecaster is implemented.	*This was recommendation 7 in 2013 IISSB site visit.*
Immunization Information Systems (IIS)	Program Management	Modify coding of non-permanent contraindications so they can expire and not be displayed.	*This was recommendation 8 in 2013 IISSB site visit.*
Immunization Information Systems (IIS)	Program Management	Take necessary legal and technical steps to permit Vital Records to create records, not merely receive "pings" from IIS as described in both 2014 and 2015 site visit calls.	*This was part of recommendation 11 in 2013 IISSB site visit.*
Immunization Information Systems (IIS)	Program Management	Consider revising Vital Records process to include capturing birth dose of Hepatitis B. This is subject to implementation of the vital records feed noted above.	*This was part of recommendation 11 in 2013 IISSB site visit.*
Immunization Information Systems (IIS)	Program Management	Establish an IIS users' group including key external stakeholders.	*This was recommendation 12 in 2013 IISSB site visit.*
Adolescent Immunization	Program Planning	Assess the need for SLVCs that provide limited vaccines in addition to seasonal influenza vaccine. If SLVCs are determined needed for more than seasonal influenza, the program should offer all ACIP recommended vaccines for the target age group to prevent missed opportunities. South Carolina successfully implemented the new 7th grade requirement and is seeing uptake of adolescents receiving vaccine at their providers. Offering seasonal influenza vaccine at SLVCs is an important service provided by the health department.	Creating missed opportunities for HPV vaccine and/or meningococcal vaccine for adolescents is not the intent of SLVCs and not a sound example by the health department.
Adult Immunization	Program Planning	Establish annual communications to adult immunization providers informing of the Adult Standards, ACIP recommendations, and IIS onboarding.	
Vaccines for Children (VFC)	Program Management	Continue standardization of VFC compliance visits using PEAR. Develop a forum for seasoned site visitors and new site visitors to exchange ideas and learn from each other as technology	

		changes affect processes and valued partnerships remain tried and true.	
Perinatal Hepatitis B	Program Planning	Follow-up with specific hospitals to better understand those missing PEP.	

[redacted]

Colleen DiLiddo

Project Officer, Program Operations Branch

9-1-2015

Date

Chief, Program Operations Branch

Date