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SOUTH  
CAROLINA  
DEPARTMENT  
OF HEALTH &  
HUMAN  
SERVICES

# STATE MEDICAID HIT PLAN (SMHP) VERSION 3.0

South Carolina Medicaid Electronic Health Record (EHR) Incentive Program  
2010-2015

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## Introduction

All South Carolinians, whether they reap direct benefits from it or not, are heavily vested in the state's Medicaid program. While the Medicaid eligibility limits are not as high as many other states, the program has a broader reach because South Carolina is a relatively poor state. Medicaid is second only to public education in terms of allocation of tax dollars and provides health care coverage to more than one-fifth of the state's population. Sixty percent of those covered under the program are children, and Medicaid pays for more than half of all in-state births.

Unfortunately, access to programs like Medicaid does not guarantee acceptable health outcomes. For a variety of reasons, South Carolina has lagged behind much of the nation in terms of health status, ranking 46<sup>th</sup> in 2009 (United Health Foundation). This has profound long-term economic and social implications for the state. Several years ago, the South Carolina Department of Health and Human Services (SCDHHS) began a concerted effort to alter the traditional Medicaid delivery model. In order to address the alarming rates of heart disease, strokes, and childhood obesity among beneficiaries, it is no longer sufficient for Medicaid to simply serve as a payer of claims.

The new goal was to create a value-driven system that emphasizes improved health outcomes for Medicaid beneficiaries and incentivizes quality care. A blueprint of this plan, called *Healthy Connections*, was submitted to the Centers for Medicare and Medicaid Services (CMS) in 2006. Important elements of that plan included investing in preventive care and care coordination, making data available to providers so they can make better clinical decisions, measuring quality care through the use of Healthcare Effectiveness Data and Information Set (HEDIS) data and other measures, and engaging Medicaid beneficiaries as never before to help them make good decisions about their own health. In short, the *Healthy Connections* plan represented where SCDHHS wanted to take the Medicaid program, with the recognition that the agency lacked all the tools necessary to reach the destination.

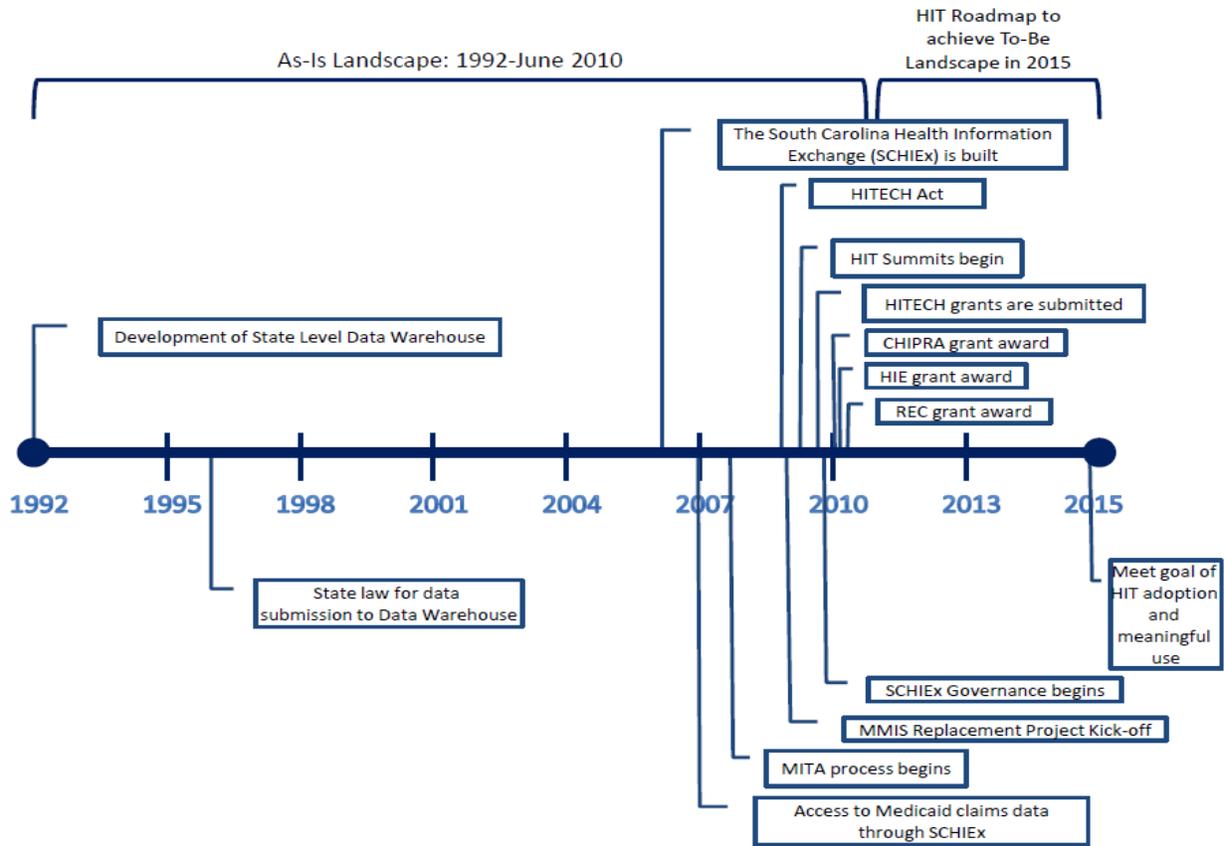
Several initiatives on both the state and federal level have since opened up new opportunities to make many of the broad goals outlined in *Healthy Connections* a reality.

- Prior to 2007, a low percentage of Medicaid beneficiaries in South Carolina received coordinated care services. This also meant that the agency lacked robust HEDIS measurements on which to gauge quality and improve the clinical soundness of policies. During the summer of 2007, SCDHHS began *Healthy Connections Choices*, a voluntary coordinated care program that offers beneficiaries a choice among several care management organizations in their county. Today, approximately 70 percent of eligible beneficiaries have elected to be part of either a managed care organization (MCO) or the state's primary care case management program. This is allowing the agency to gather important comparative data from the plans and ultimately to pay for quality outcomes. SCDHHS currently publishes a Medicaid Cost and Quality Effectiveness Report on the managed care plans, and SCDHHS also will soon be able to publish a plan "report card" on HEDIS quality measure results that beneficiaries will access to make more informed plan selections. As SCDHHS begins to learn about the new Children's Health Insurance Program

Reauthorization Act of 2009 (CHIPRA) quality measures, SCDHHS will determine how to include this additional data on the report card.

- The CHIPRA legislation offers the opportunity to make great strides in serving the Medicaid program's core population. South Carolina is the recipient of a \$9.2 million CHIPRA Quality Demonstration Grant designed to demonstrate that newly-developed quality indicators can be successfully utilized in pediatric practices. Goals include sharing key clinical data through a statewide electronic quality improvement network, developing a physician-led peer-to-peer quality improvement network, and expanding the use of pediatric medical homes to address mental health challenges of children in the state. The initial pilot will involve 15 pediatric practices across the state.
- Perhaps most significantly, the passage of the American Recovery and Reinvestment Act (ARRA) and the subsequent Health Information Technology for Economic and Clinical Health (HITECH) Act has greatly accelerated South Carolina's progress towards implementing a widely available statewide health information exchange (HIE). SCDHHS partnered with the state's Office and Research and Statistics (ORS) in 2006 on the Electronic Personal Health Record (EPHR) pilot program. The aim of the pilot was similar to that of the current federal health information technology (HIT) program—to arm physicians with a comprehensive patient history, allowing them to make the best clinical decisions possible. The EPHR pilot began as a five-county pilot and made 10 years worth of claims data warehoused at ORS available to providers through a secure web portal. EPHR has since developed into the South Carolina Health Information Exchange (SCHIE), the state's recognized HIE and a recipient of a \$9.5 million grant from the Office of the National Coordinator (ONC).

SCDHHS has always had a steady presence in advancing HIT efforts in South Carolina. A brief timeline of events below (see following page) shows the milestones met and those to be achieved in the South Carolina HIT landscape:



With the passage of the HITECH Act, SCDHHS emerged as a leader to facilitate assembling the infrastructure to make it possible for providers to become meaningful users. For the purposes of this document, the “As-Is” period is defined as 1992 through June 2010, and the “To-Be” period is 2015. July 2010 through 2014 is the period known as the HIT Roadmap for South Carolina.

SCDHHS is grateful for the support and resources federal agencies have committed to making improved health outcomes and quality care a centerpiece of the Medicaid program. The following document represents a detailed plan on how SCDHHS will leverage existing resources to advance HIT and make it available to health care providers across the state.

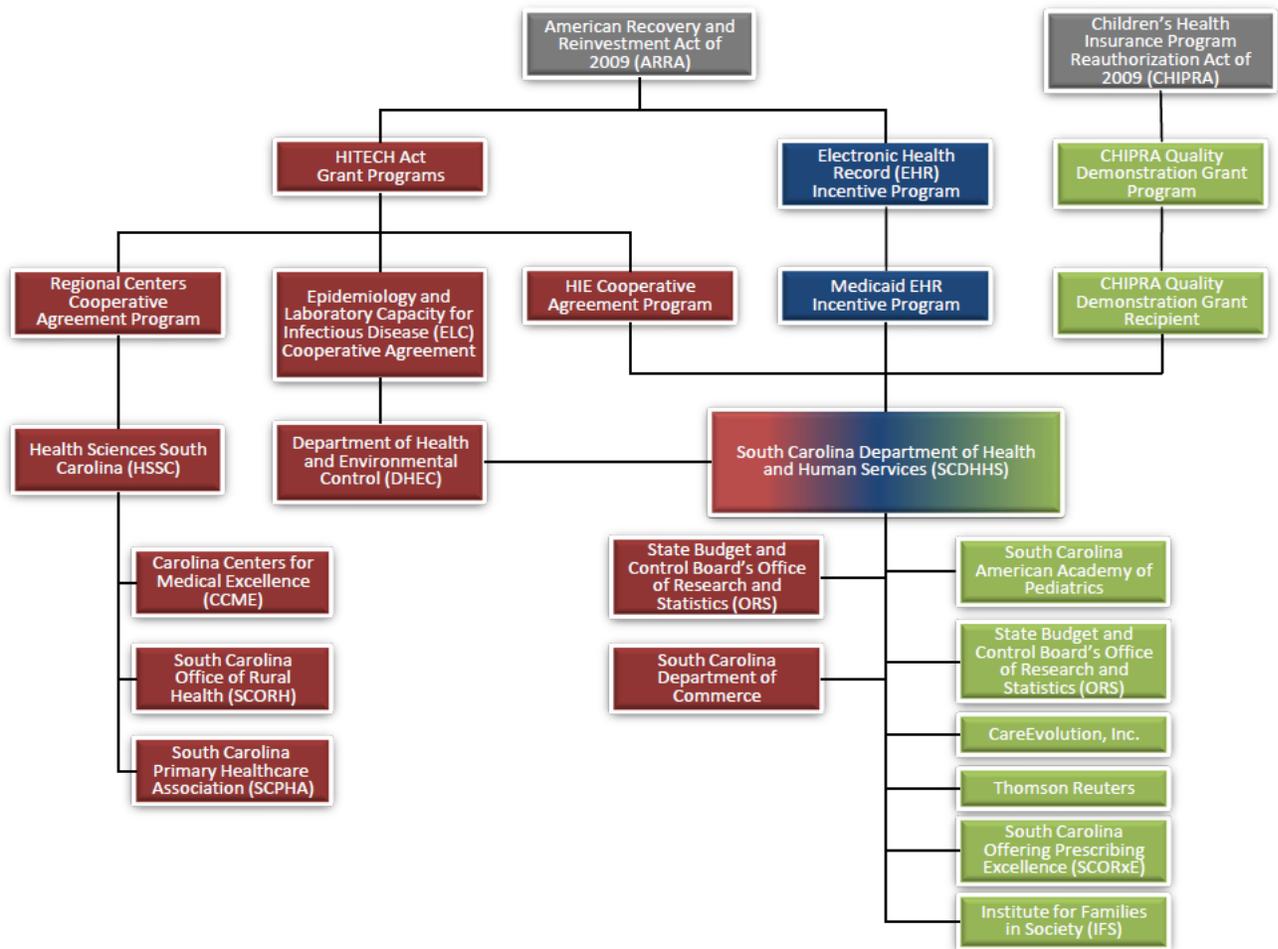
## Section A: The “As-Is” HIT Landscape

### Role of Medicaid in State HIT Coordination

SCDHHS is dually invested in the state’s HIT efforts, as it is the state agency designated by the governor to receive the HIE Cooperative Agreement and is also responsible for administering payments for South Carolina’s Medicaid Electronic Health Record (EHR) Incentive Program.

The SCDHHS Director and the ORS Chief of Health and Demographics previously performed functions that fall within the State HIT Coordinator’s responsibility. Following changes in SCDHHS’ executive leadership, the ORS Chief of Health and Demographics has assumed all HIT Coordinator responsibilities.

As grants became available, Medicaid leveraged the ongoing work to further expand and strengthen the infrastructure to support HIT adoption and achieving meaningful use. Below, the South Carolina Medicaid role is shown in context with some of the HIT activities currently underway in the state:



As SCDHHS is responsible for administering and overseeing the South Carolina Medicaid EHR Incentive Program, the agency has worked to gather stakeholder input during the development of this State

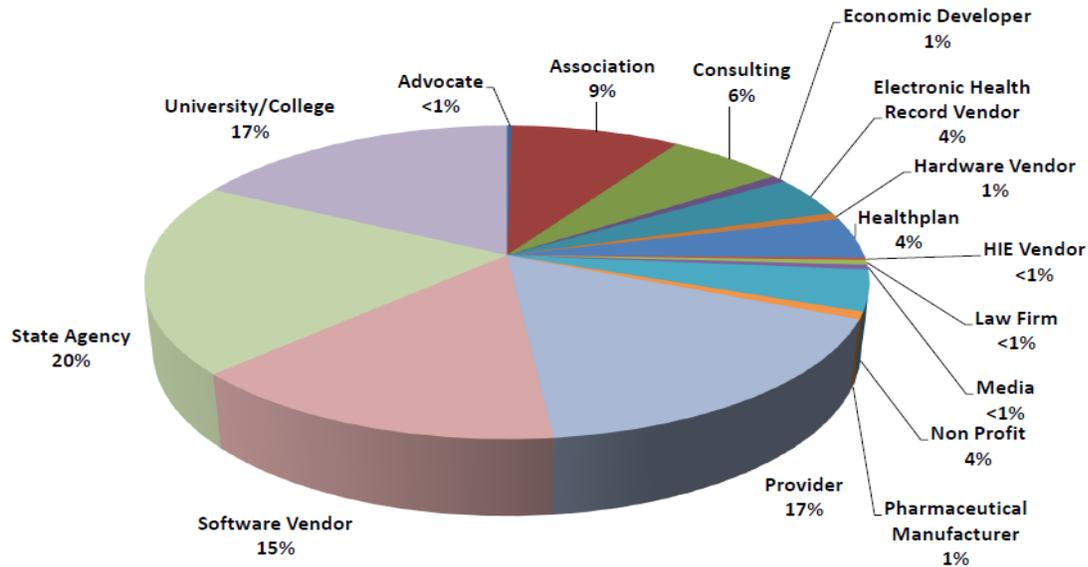
Medicaid HIT Plan (SMHP). SCDHHS presented on the EHR Incentive program and South Carolina’s plan for development of the South Carolina Medicaid EHR Incentive Program during South Carolina’s HIT summits. These summits are consistently attended by stakeholders throughout the state and are open to the public. The summits have and will continue to provide a venue for stakeholder input and feedback on the South Carolina Medicaid EHR Incentive Program. Further, SCDHHS posted its SMHP on its HIT website (<http://www.scdhhs.gov/hit>) and coordinated the SMHP development with the HIE Cooperative Agreement strategic and operational plans.

### **HIT Summits of South Carolina**

When the ARRA legislation was signed, SCDHHS, ORS, and Health Sciences South Carolina (HSSC) came together and formed an e-Health group. The group initiated a series of monthly HIT summits beginning in June 2009. The summits provide the private sector, state government, providers, non-profit organizations, universities, and other stakeholders with the opportunity to come together to assess the current status of HIT and HIE in South Carolina and develop a cohesive state strategic plan to move forward. To date, 186 organizations and 465 unique individuals have attended. The chart below lists the theme of each summit and individual summit attendance numbers.

Summit Date	# of Attendees	Topics
6/17/2009	114	What’s going on in South Carolina HIT?, Provider Issues, HIE
7/29/2009	141	Meaningful Use, HIE selection, Governance, Provider issues
8/27/2009	157	Privacy and Security
10/1/2009	136	Experience & Success with EMRs and Workforce Readiness
10/29/2009	146	Who are the vendors?
12/10/2009	104	Consumers and e-Prescribing
1/13/2010	113	Security, the Interim Rule for the EHR Incentive Program and Standards/Certification for EHR technology
4/22/2010	100+	Getting Started on Implementation of HIT
8/18/2010	100+	The Age of Electronic Health Records is Here
11/18/2010		

The summits have been well attended by a broad representation of stakeholders across the state:



During the early summits, participants reached two significant consensus points—the development of a cohesive vision statement with guiding principles and leveraging the SCHIEx platform to be the statewide HIE solution. Summit meetings transitioned from monthly to quarterly following the April 2010 Summit. Past summit presentations and other materials are available at <http://training.scdhhs.gov/hit/>

**South Carolina HIT Vision Statement:**

Our vision is for a healthier South Carolina where shared health information is a critical tool for improving the overall performance of the health care system. The health care community will work together to achieve clinical effectiveness through the use of information technology, delivering better overall value and improving quality of life for South Carolinians.

**Guiding principles to enable the vision:**

1. Individual consumers, patients, and their families will be engaged in and benefit from implementation of the HIT plan.
2. Privacy and security will drive HIT selection, implementation, and support.
3. HIT will greatly facilitate coordination of care.
4. HIT is a vital tool to improve population & public health.
5. Evaluation of the effectiveness of using HIT data to improve health outcomes will be integrated into the HIT plan.
6. Access to care will be improved and disparities in care will be reduced using HIT.

7. Training & support will be available throughout the state.
8. Continuous improvement in quality, safety and efficiency will be aided by using HIT.
9. Adoption of standards and the requirements of interoperability are essential to the success of the HIT plan.
10. HIT will greatly facilitate translational, population-based and health services research.

## **State Strategic and Operational Plans**

The state's strategic and operational plans (deliverables for the HIE Cooperative Agreement Program; see Grant Activities) were developed with significant stakeholder input; presented and discussed at the monthly summits; and were available for public comment on the HIT summit website. Both plans were submitted to the ONC in April 2010 and received approval in September 2010.

## **Provider EHR Adoption**

### **Environmental Scan**

The South Carolina Rural Health Research Center (SCRHRC) completed a high-level, preliminary environmental scan on HIT use and EMR adoption among South Carolina providers in early fall 2009. These results were used to guide initial plans and strategies for applying for the HIE and Regional Center Cooperative Agreements. The SCRHRC is one of only six rural health research centers funded by the Health Resources and Services Administration (HRSA) Office of Rural Health Policy (ORHP).

During the final calendar months of 2009, the SCRHRC conducted a detailed environmental scan to provide a comprehensive picture of the HIT environment among South Carolina providers, including the levels of electronic medical record (EMR) usage, receptiveness to connection to an HIE, familiarity with and understanding of HIT legislation, and other factors relating to HIT integration in the state. The purpose of South Carolina's environmental scan was to ascertain the degree of HIE readiness for healthcare professionals and facilities that are eligible for Medicaid and Medicare EHR incentive programs.

One hundred percent of hospitals, Rural Health Clinics (RHC), and Federally Qualified Health Centers (FQHC) were surveyed. Due to the number of providers, however, a geographically derived sample of individual and small group primary care practices that are neither RHCs nor FQHCs were surveyed. The sample was generated by ORS based on the provider types eligible for the EHR incentive program and has adequate power to ensure reliable statistical significance testing.

The detailed environmental scan indicated that while EMR adoption has been historically low in South Carolina, there appears to be enthusiasm for EMR adoption and HIE participation as shown below.

Degree of EMR Implementation	% Practices	% Hospitals
Not considering	6.41%	9.52%
Considering but no specific plans	15.48%	14.29%
Making plans and preparing	20.79%	28.57%
Purchased and beginning implementation	8.79%	16.67%
Implemented, but not working as well as expected	6.14%	9.52%
Implemented and works well	40.02%	19.05%

Hospitals appear to be poised to serve in leadership roles at the local-level, given the depth of their capacity, infrastructure, and understanding of policies and regulations. Creating hospital-practice partnerships from which experiential learning can occur will be essential in statewide-HIE deployment. The complete executive summary and results of the detailed environmental scan are available in Appendix A.

Environmental scan results indicate the importance of conducting a second detailed scan for comparative results and for updating the South Carolina Department of Commerce’s economic model for SCHIE. The second detailed scan will be conducted in early 2011.

### Encouraging Provider Adoption

SCDHHS is leveraging the Center for Information Technology Implementation Assistance in South Carolina (CITIA-SC, South Carolina’s Regional Extension Center) and the CHIPRA Quality Demonstration Grant to encourage provider adoption, as both of these programs engage providers in adopting certified EHRs and finding the most suitable ways to utilize HIT in the practice setting. The table below displays the site and priority primary care provider (PPCP) results as of early July 2010 for CITIA.

	FQHCs		RHCs/CAHs		Provider Practices		Total	
	#Sites	#PPCPs	#Sites	#PPCPs	#Sites	#PPCPs	#Sites	#PPCPs
# Accepted by CITIA System	28	72	16	47	22	58	66	177
# with Provider Agreements	12	28	16	47	17	40	45	115
% with Provider Agreements	43%	38%	100%	100%	77%	69%	68%	65%
# with Demographic Data	3	6	5	10	1	2	9	18

SCDHHS expects that CITIA’s site results will increase over time as more providers adopt certified EHRs and share their experiences of working with CITIA. The tables below break out the practices that have applied to participate in South Carolina’s CHIPRA Quality Demonstration Grant as of July 2010. Not surprisingly, the larger practices have higher numbers of HIT adoption than the smaller practices. SCDHHS intends to recruit a variety of practices, varying in size and HIT adoption status in order to better examine the impact of the demonstration project. SCDHHS expects that the practices that do participate in the program will share their lessons learned with the larger provider community. This is

especially true for the grant participants that do not have any HIT implemented in their practice as they will be among the first providers to receive CITIA services.

	Small practice (1-3 practitioners)	Medium Practice (4-6 practitioners)	Large Practice (>6 practitioners)
Current EHR Adopter		4	8
Active EHR Implementation Plan	2	1	5
No current EHR Implementation Plan	4		

	0-25% Medicaid Patients	26-50% Medicaid Patients	51-75% Medicaid Patients	Over 75% Medicaid Patients
Current EHR Adopter		4	2	6
Active EHR Implementation Plan	2	2	4	
No current EHR Implementation Plan	1		1	2

Those applicants that indicated that they are current EHR adopters are spread a continuum of HIT use that ranges from using an ePrescribing module to implementing and using an EMR to exchanging electronic health records. This CHIPRA Quality Demonstration Grant, in part, will assist the participating practices in using certified EHR technology.

### **Coordination with Managed Care Entities**

As the majority of South Carolina’s Medicaid population is enrolled in a managed care plan, SCDHHS has coordinated its planning efforts for the South Carolina Medicaid EHR Incentive Program with the South Carolina Medicaid managed care plans. The managed care plans are informed of SCDHHS’ HIT summits and have had a steady presence at the summit meetings since June 2009. The HIT summits are one of the ways SCDHHS offers to stakeholders to comment on SCDHHS’ plans for the South Carolina Medicaid EHR Incentive Program. The SCDHHS agency director will also be presenting at an upcoming monthly managed care meeting to provide updates to the plans on the South Carolina Medicaid EHR Incentive Program. Finally, SCDHHS is working with the plans to identify those providers who are contracted with one of the Medicaid managed care plans but not enrolled in Medicaid. SCDHHS will conduct an outreach campaign to those providers in order to alert them of the South Carolina requirement that providers must be enrolled with South Carolina Medicaid in order to receive incentive payments.

## **Coordination with the Catawba Indian Nation**

The Catawba Indian Nation is the only federally recognized Indian tribe in South Carolina. Located eight miles east of Rock Hill, South Carolina, the Catawba tribal roll contains approximately 2,200 names.

While preparing their regional extension center application, HSSC conducted a site visit in the fall of 2009 and toured the single health facility on the reservation. The facility uses an advanced EMR system that is part of the Indian Health System (IHS). Chief Don Rogers indicated that though the clinic does not need direct EMR assistance, they will require assistance in connecting their system to SCHIEx. HSSC also provided a letter of support for the IHS regional extension center initiative.

SCDHHS maintains a positive working relationship and frequent communication with the Catawba Indian Nation. The Deputy Director of Medicaid Eligibility and Beneficiary Service is the established contact for the agency, and during regular outreach, the Deputy Director provides information on SCHIEx, the EHR incentive program, the HIT summits, and other resources to the clinic. The Catawba Indian Nation has also been invited to the HIT Summits, which began in June 2009. During recent onsite visits, information packets were shared with the clinic that contained information developed specifically concerning the South Carolina Medicaid EHR Incentive Program including educational brochures (a component of SCDHHS' educational campaign for providers on HIT) and SCDHHS website information where the SMHP was posted for stakeholder review. The clinic administrator is also a member of the Medical Care Advisory Committee (MCAC) where SCDHHS routinely reports updates on the HIE Cooperative Agreement and other HIT efforts. The Catawba Indian Nation has indicated to SCDHHS that they are satisfied with this level of coordination and approach to the South Carolina Medicaid EHR Incentive Program.

## **Broadband Access**

Results of the detailed environmental scan indicated that in spite of the rurality of South Carolina, virtually all healthcare providers have internet access. Hospitals are more likely to use T-1 lines (28.6%) and fiber optic cable (50.0%). Physician practices are more likely to use DSL (17.8%), T-1 lines (29.9%), or cable (19.9%).

The South Carolina Light Rail (SCLR) is a collaborative project among Clemson University, the Medical University of South Carolina, and the University of South Carolina and is a public-private partnership to provide a broadband, high-speed optical network that will extend throughout the state and link to regional and national networks such as Southern Light Rail, National Lambda Rail, Internet2, and SURAGrid and TeraGrid. In December 2007, the Federal Communications Commission (FCC) awarded a \$7.9-million grant to South Carolina to interconnect 35 rural locations via broadband to improve healthcare intervention and service delivery. The three universities are engaged in extensive planning and due diligence over the next two years to further expand the network.

The Palmetto State Provider Network (PSPN) is a dedicated health care network. It provides private scalable broadband to every county in South Carolina. It provides Internet 2 to all participants. Internet 2 is most commonly used by government agencies (state and federal), universities, healthcare organizations, and industry. It has more bandwidth available, is easy to secure, and has very little commodity traffic. The PSPN is used to connect organizations such as the e-Health Alliance for the transport of clinical data. The PSPN is active with the South Carolina Area Health Education Consortium (AHEC) in providing training, education, and continuing education. The networks are active in the use of telemedicine across the state and delivering care into unserved and underserved areas and the rural areas of the state. Plans to expand and strengthen broadband access to the “Middle Mile” are in progress. The PSPN is funded by the FCC Rural Health Care Pilot Program. While connected to the commodity Internet through existing state internet service providers, SCHIEEx will also connect to PSPN in order to provide additional network redundancy and flexibility for those healthcare providers who are PSPN subscribers. The Division of State Information Technology (DSIT), the hosting environment for SCHIEEx, currently has two internet service providers on contract, allowing for redundant access to the internet, and the PSPN will provide a third access point

The SCLR and the PSPN represent the current network/broadband access in the state and meet the requirements of the Health Insurance Portability and Accountability Act (HIPAA) and other federal regulatory requirements. Current plans are to connect additional hospitals, FQHCs, community health centers, health departments, and prison telemedicine units.

The Palmetto State Integrated Fiber Infrastructure (PSIFI) grant will add additional components to the network’s robustness. Grant funding will allow for the additional hardware and fiber to be integrated with the SCLR and will expand the “Middle Mile” to have more flexibility and be easier to connect to and therefore forming a more complex and sophisticated network. Funded through the Broadband Technology Opportunities Program (BTOP) that is administered by the National Telecommunications and Information Administration (NTIA), the PSIFI grant project provides fiber based broadband network access to all two and four year higher education anchor sites as well as over 40 medical, public safety, and public services sites in South Carolina, which totals to over 100 locations.

## **Grant Activities**

The HIT Summits facilitated the grant application process by allowing state leaders and stakeholders to determine which organization should take the lead and ensuring that eligible organizations were aware of the grants. Collectively, grant applicants made a commitment to coordinate the grants in order to achieve the desired outcomes of HIT adoption and meaningful use.

SCDHHS and HSSC each applied for grant funding available through the HITECH Act. SCDHHS and HSSC value collaboration and close coordination of activities to meet their grants' objectives and goals. To ensure efficient use of resources, SCDHHS and HSSC share a grant coordinator to manage the grants and maintain an open, constant loop of communication between the two organizations.

The technical colleges applied for the workforce development grants and spent a good deal of time examining their curriculum to find the best ways to train and educate individuals that will work with HIT on a daily basis.

Applications were submitted for the Strategic Health Information Technology Advanced Research Projects (SHARP) Grant and Beacon Communities grants. However, neither group was selected. Both groups resubmitted their applications for review given the availability of additional grant funding.

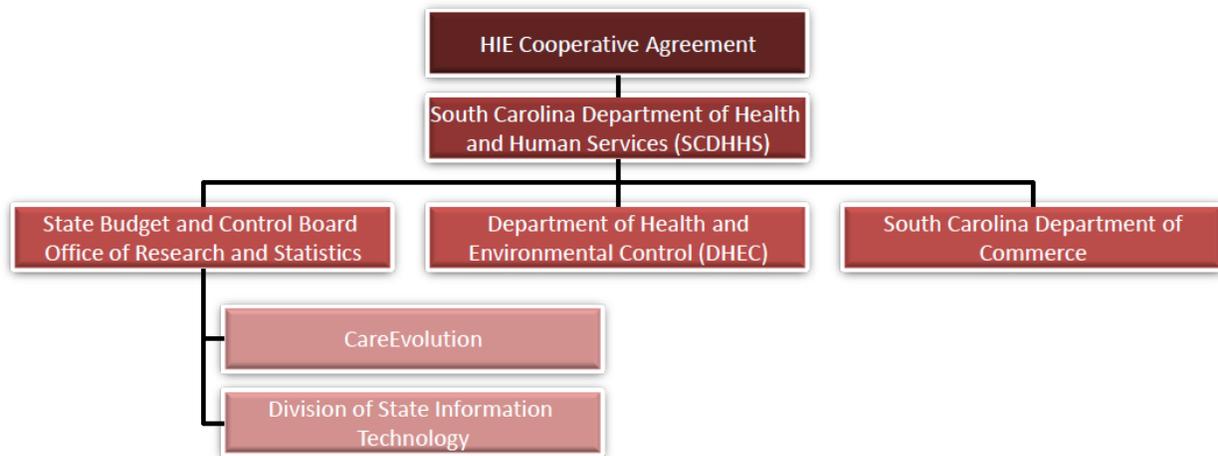
HIT leaders looked to leverage other grant opportunities that would further extend the HIT reach in South Carolina such as the CHIPRA Quality Demonstration Grant. SCDHHS submitted an application for this opportunity.

The South Carolina Department of Health and Environmental Control (SCDHEC) applied for the Centers for Disease Control and Prevention (CDC) Lab grant, which is significant to meaningful use requirements.

South Carolina does not have any FQHC networks that have received or are receiving HIT/EHR funding from HRSA.

### State HIE Cooperative Agreement Program

SCDHHS is the governor-designated applicant for the State HIE Cooperative Agreement Program and received a grant award on March 15, 2010 totaling \$9,576,408. Grant funding will support scaling SCHIEx for statewide use. Grant partners include ORS, SCDHEC, the South Carolina Department of Commerce, CareEvolution, and the DSIT:



#### Grant Objectives:

- Set up a governance structure for the exchange of health information;
- Transition SCHIEEx to a statewide hosting environment;
- Scale SCHIEEx for statewide use;
- Connect SCHIEEx to the state immunization and disease registries;
- Inform providers and other stakeholders about HIT adoption and meaningful use; and
- Work with partners to remove barriers to meaningful use.

#### Expected Outcomes:

- Providers will adopt and use EHRs to improve patient care. (See Section C, Provider Adoption for additional information.)
- SCHIEEx will become a self-sustaining operation.

SCDHHS submitted draft final strategic and operational plans to the ONC in April 2010. The plans contain all required content including a gap analysis to meet meaningful use. These plans were approved by the ONC in September 2010.

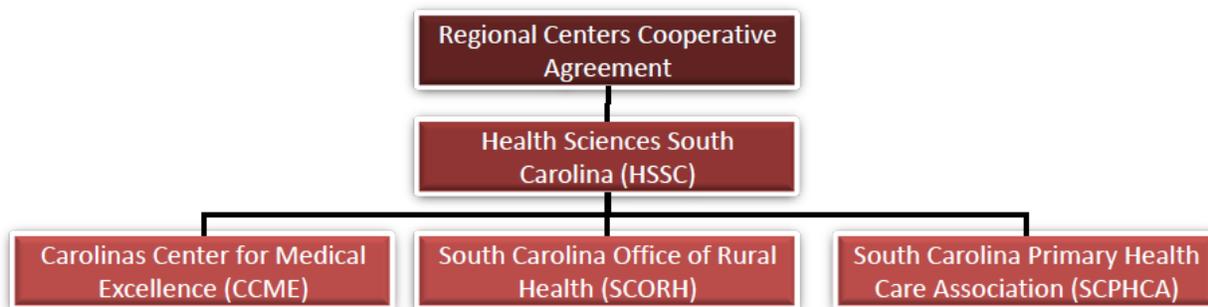
Administration for the HIE Cooperative Agreement grant team is now part of the SCDHHS Bureau of Federal Contracts. The Bureau is responsible for developing and updating the HIE strategic and operational plans and continues to engage stakeholders in the planning process.

Under contract with SCDHHS, the South Carolina Department of Commerce has assisted with the development of a business sustainability plan, a required component of the operational plan. The South Carolina Department of Commerce developed an economic model to sustain SCHIEEx through user fees after the grant funding period ends. Data from the detailed HIT environmental scan (see Provider EHR Adoption) was used as the variable for the economic model. The economic model was developed for providers and hospitals. Per feedback from the ONC, SCDHHS is working with the South Carolina Department of Commerce to adjust the economic model to include other subscribers, thus making SCHIEEx available to additional users as well as reducing the subscription cost for each type of subscription entity. SCDHHS has coordinated several meetings and continues to do so with its Interim Governance Committee (IGC) that includes representation from hospital associations, provider associations, other state agencies, and other professional organizations. Once a revised final fee schedule is approved by the IGC, it will be posted electronically on the SCHIEEx website for public comment. SCDHHS is coordinating the development of these deliverables with the State Medicaid HIT Plan (SMHP) to ensure a shared vision for future HIT activities in the State.

Meaningful use of EHRs is expected to improve health outcomes for all South Carolinians. At the close of the grant, South Carolina will have a statewide HIE and can contribute quantitative and evaluative data to the national dialogue on health information exchange.

### Health Information Technology Extension Program: Regional Centers Cooperative Agreement Program

On April 6, 2010, HSSC received \$5,581,407 for the Regional Centers Cooperative Agreement Program. With grant funding, HSSC and its partners will establish CITIA-SC. CITIA-SC will assist priority primary care providers across South Carolina in improving the quality and value of health care through the selection, adoption, and meaningful use of EHR systems. Grant partners include the Carolinas Center for Medical Excellence (CCME), the South Carolina Office of Rural Health (SCORH), and the South Carolina Primary Health Care Association (SCPHCA).



#### Grant Objectives:

- CITIA will provide pre- and post-EHR adoption services.
- CITIA will develop a preferred vendor list.

#### Grant Outcomes:

- Priority primary care physicians will become users of certified EHRs and advance to become meaningful users
- CITIA-SC will identify ways to coordinate with related grants and HIT initiatives to ensure program coordination.

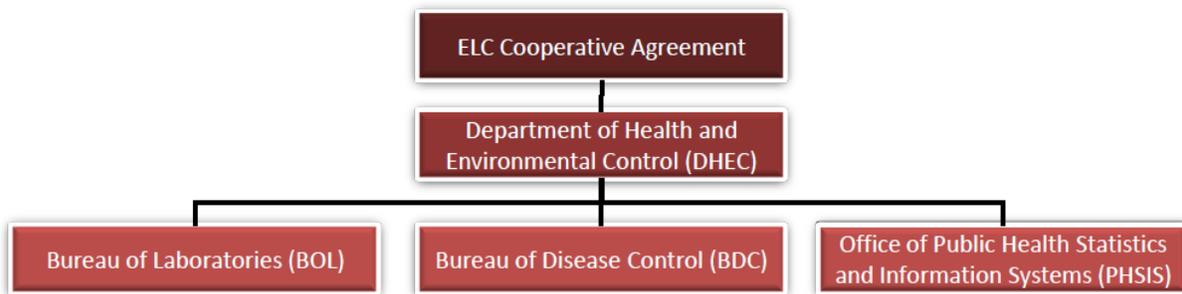
The CITIA-SC will deploy a two-tiered services model that will offer pre-EHR adoption services (practice assessment, system selection, implementation support) and post-EHR adoption services (post-implementation consultation on EHR system optimization, achieving meaningful use, connecting to the HIE). Of particular importance, a vendor selection and group purchasing committee was formed to identify available EHR software systems that are appropriate for a variety of practices. The committee is evaluating vendor proposals and will produce a recommended listing of EHR systems for practices to purchase through group purchasing contracts.

It is essential for this grant program to be coordinated with the EHR incentive Program as CITIA will often serve as the front line for questions and communication concerning the EHR Incentive Program. SCDHHS and CITIA have met regularly to discuss the programs and identified these points of collaboration:

- Both organizations will share their list of providers that have signed letters of commitment or registered for the incentive program. This will allow both organizations to conduct outreach efforts to providers for both programs.
- CITIA staff will assist providers with the volume requirement.
- CITIA staff will advise providers to organize documentation in the event of an audit.
- CITIA will share with SCDHHS which providers have reached the “go live” status, including certification information.
- CITIA will provide feedback on the EHR incentive Program.
- CITIA will solicit provider input on how to facilitate certified EHR adoption and share the results with SCDHHS.

**Centers for Disease Control and Prevention (CDC) Epidemiology and Laboratory Capacity (ELC) for Infectious Diseases**

In September 2010, SCDHEC received \$310,000 from a CDC grant to improve its current state public health laboratory computer and information technology (IT) capabilities for transmitting reportable lab results to and from local, state, and national public health agencies and lab test results and test orders from and to hospital affiliated laboratories, medical providers, and their EHRs. Grant partners include the Bureau of Laboratories (BOL), the Bureau of Disease Control (BDC), and the Office of Public Health Statistics and Information Systems (PHSIS).



Grant Objective:

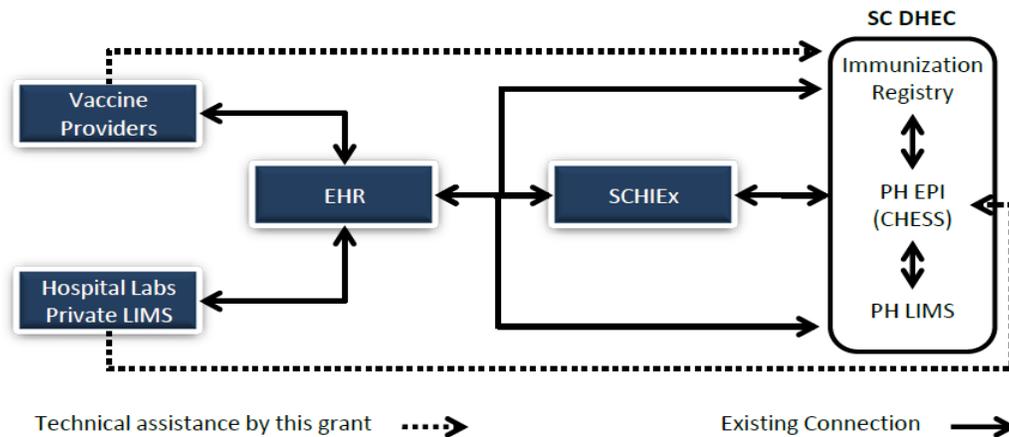
- SCDHEC will expand the current state public health laboratory computer and IT capabilities.

Grant Outcome:

- SCDHEC’s developmental work will complete the needed infrastructure to enable providers to meet Stage 1 meaningful use requirements.

SCDHEC will complete, within the grant period, all the required activities and also expand the development to include infrastructure and interoperability with other existing systems to meet Stage 1 Meaningful Use requirements.

SCDHEC plays a key role in the state’s HIE initiative by supporting the grant requirement for the Stage 1 Meaningful Use and also due to a critical need for exchanging timely ELRs with medical providers to perform their legally-mandated public health responsibility. This additional funding is being sought to further develop and implement the Sample Master Laboratory Information Management System (LIMS) capabilities to permit additional two-way lab data transmissions with medical providers, the public health agency, and the CDC. The additional funding will allow for sufficient resources to implement overarching infrastructure and interoperability including the LIMS, immunization registry, and syndromic surveillance systems together to enhance SCDHEC’s epidemiology and laboratory capacities as a whole. This enhanced capacity will allow information flow that interconnects medical providers’ EHRs with the state public health labs and the public health programs for effective disease investigation, surveillance, and intervention. The figure below shows the planned infrastructure to support this initiative.



The SCDHEC BOL is a centralized state public health laboratory with statewide jurisdiction. South Carolina Law §44-29-10 and §17-5-560 require reporting of laboratory results (<http://www.dhec.sc.gov/administration/library/CR-009036.pdf>), conditions (<http://www.scdhec.gov/administration/library/CR-009025.pdf>), deaths and their causes from contagious or infectious diseases and or other terrorism to the SCDHEC, BDC, and the Office of Vital Record.

The overall focus of this grant is to successfully transmit two-way reportable lab results among the Bureau of Lab LIMS, the BDC Carolina Health Electronic Surveillance System (CHESS), the CDC, and other

state public health labs and also to allow electronic sending and receiving of lab test orders and test results from the BOL LIMS by medical providers.

### CHIPRA Quality Demonstration Grant Program

SCDHHS was awarded one of the 10 CHIPRA Quality Demonstration Grants on February 22, 2010 and received a grant award totaling \$9,277,361. The grant program includes a nine-month planning phase to be completed in the first year prior to implementation of the proposed project. SCDHHS has named its demonstration project the Quality through Technology and Innovation in Pediatrics (QTIP) project. Grant partners include ORS, the South Carolina Chapter of the American Academy of Pediatrics (AAP), CareEvolution, Thomson Reuters, the South Carolina Offering Prescribing Excellence (SCORxE) program, and the Institute for Families in Society (IFS).



#### Grant Objectives:

- Providers will demonstrate the ability to collect the new CHIPRA measures using certified EHR technology and view quality reports prepared by Thomson Reuters.
- Providers will pursue National Committee for Quality Assurance (NCQA) certification of the patient-centered medical home (PCMH) model.
- Providers will identify quality improvement tactics that will impact their practices.

#### Grant Outcomes:

- SCDHHS will determine the impact of collecting CHIPRA measures and identify any barriers that impeded data collection.
- SCDHHS and its grant partners will create a clinical data repository and the necessary adapters that are capable of delivering quality report cards via SCHIEx to providers' EHRs.

SCDHHS maintains a positive relationship with the state chapter of the AAP, and as part of a grant funding request for the CHIPRA Quality Demonstration Grant Program, SCDHHS and its grant partners

proposed to automate the collection of CHIPRA quality measures; to minimize the apparent overlap in different quality measures sets; and to create a provider friendly continuous closed-loop, quality improvement infrastructure

Using the existing SCHIEx infrastructure, participating providers will “connect” to each other to better deliver coordinated care using the PCMH model. Quality reports will be prepared in the Thomson Reuters Advantage Suite database and then returned to providers via SCHIEx for viewing in their EHR or the Application Service Provider (ASP) EMR module solution. The ASP EMR module will become certified as a module.

While the proposed demonstration project focuses on South Carolina’s pediatric primary care practices, the lessons learned from this type of project would be valuable to the larger provider community.

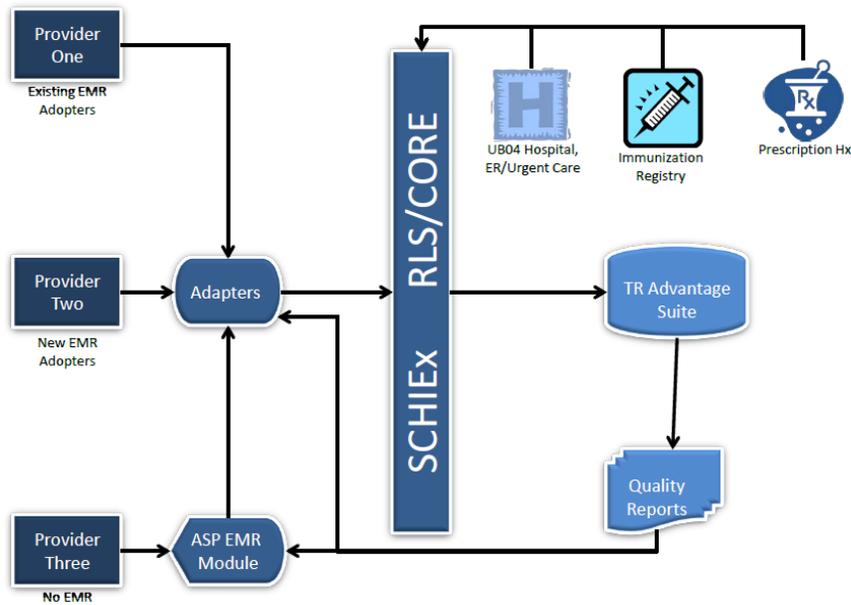
The following report example is intended for use by a provider to easily assess quality measures related to individual patients. SCDHHS’ vision is that such real-time feedback would alter practice patterns where there are opportunities for improvement in meeting accepted evidence-based best practices.

South Carolina Department of Health and Human Services Provider Report: Medicaid Patient Level Metrics							
Provider	Provider 1234 Joan Smith, MD						
Time Period	CY 2009						
Person ID	Gender	Recorded BMI	BMI Status	Chlamydia Screening	EPSDT Dental Visits	ER Visits per Patient	ER Status
153664601	Male	26.2	⊗	n/a	✓	3	⊗
155078802	Female	24.2	✓	✓	✓	2	✓
155881491	Female	27.1	⊗	⊗	✓	0	✓
156409502	Female	20.8	✓	✓	⊗	1	✓
157265002	Male	21.2	✓	n/a	✓	2	✓
157270502	Female	23.7	⊗	✓	⊗	5	⊗
158056201	Female	24.6	⊗	✓	✓	4	⊗

The report example below displays quality measures for the total patient population of a provider.

South Carolina Department of Health and Human Services Medicaid Total Report: Provider Level Metrics									
Subset	SCHIP								
Time Period	CY 2009								
Provider ID	Overall Status	BMI Recorded	BMI Status	Chlamydia Screening	Chlamydia Screening Status	EPSDT Dental Visits	Dental Status	ER Visits per 1,000	ER Status
353664603	⊗	77%	⊗	34%	✓	52%	✓	610	⊗
355078802	✓	84%	✓	56%	⊗	55%	✓	499	✓
355883493	⊗	79%	⊗	49%	⊗	55%	✓	493	✓
356409502	✓	88%	✓	41%	✓	49%	⊗	490	✓
357265002	✓	88%	✓	57%	✓	51%	✓	493	✓
357270502	⊗	69%	⊗	47%	⊗	52%	✓	622	⊗
358056203	⊗	75%	⊗	40%	✓	53%	✓	616	⊗

The diagram below is a high-level articulation of the overall proposed technology infrastructure to support the grant project:



As the diagram indicates, edge adapters configured with existing provider EHRs (and new adopters) will extract the clinical documentation from the EHR, transform, standardize, and codify the resultant data per national standards, and transmit the data to SCHIEEx. For providers without full-scale EHRs, an ASP EMR module (to be certified) will be provided to collect the necessary quality data for their patient population. The SCHIEEx HIE backbone serves as a clearinghouse of information related to the patient. Emergency room visits, lab results, prescription histories, and immunization data are combined with data directly extracted from the provider’s EMR. CareEvolution and Thomson Reuters will seamlessly integrate their efforts so that standardized data from edge adapters arrives in the Decision Support System (DSS) data warehouse, which generates the quality reports. The quality reports are delivered back to the providers as a “tab” on their ASP EMR module or via a web portal integrated with the EMR.

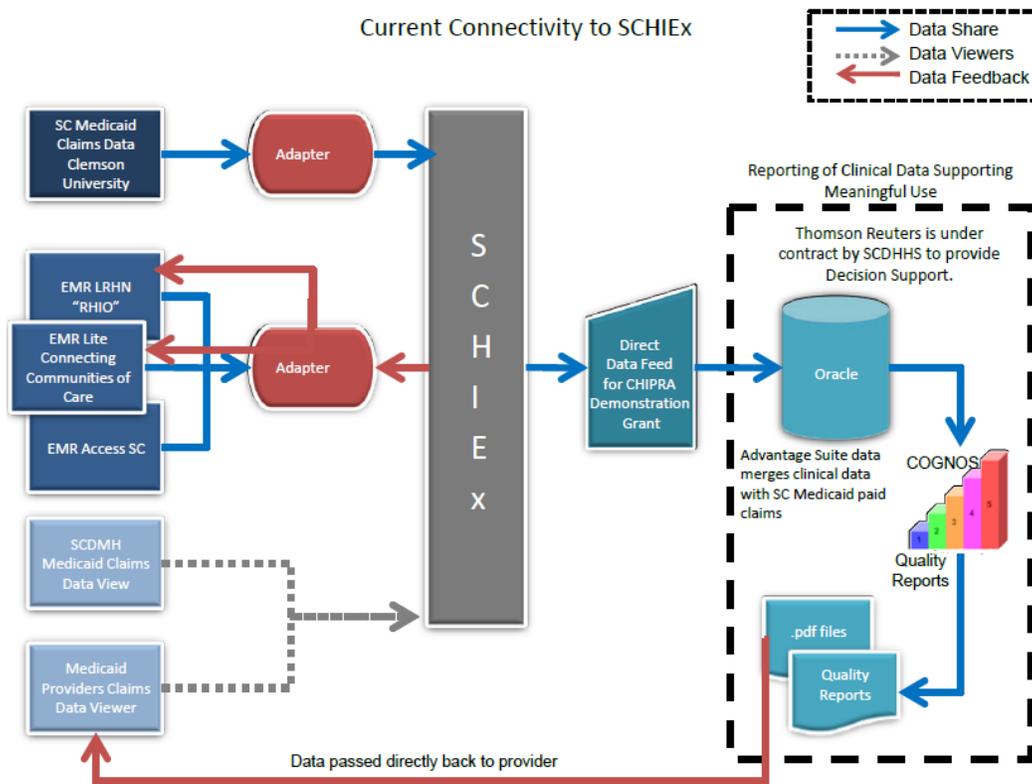
### Clinical Data Repository

A quality reporting pilot project began in March 2010 to demonstrate the unification of clinical data from an EHR by means of SCHIEEx into the Thomson Reuters Advantage Suite database with Medicaid claims data. The Carolina Health Centers, a member of the Lakelands Rural Health Network (LRHN), participated in this pilot with its existing connection to SCHIEEx.

This pilot draws available raw data on Medicaid patients that are treated at the Carolina Health Centers through SCHIEEx and into the Thomson Reuters Advantage Suite. From there, raw clinical data will be linked to the corresponding claims data, and meaningful use reports will be generated for SCDHHS. This pilot project is a significant first step for SCDHHS’ preparation to accept quality measures and reporting

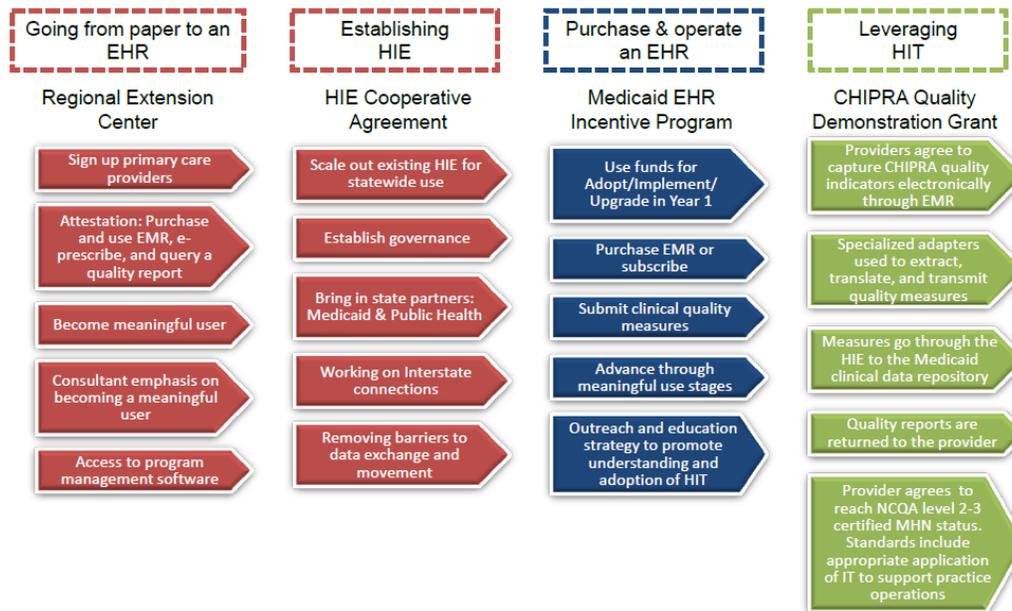
through EHRs by 2012. Further, this pilot identified ways to lessen the administrative burden on providers to collect measures.

Efforts are now focused on how to integrate structured data into the claims repository in order to build a clinical data repository. Initial tests have been successful, and testing continues with the CHIPRA Quality Demonstration Project. The next steps involve working with the participating practices in mapping structured data with the Thomson Reuters Advantage Suite. The data stored in the participating practices' EHRs will be linked to the corresponding claims data. SCDHHS will then apply this methodology on a larger scale by 2012. In the mean time, SCDHHS will accept a standard format for quality data (format to be determined). The diagram below shows the current connectivity of SCHIEx for the SCHIEx pilot projects and the CHIPRA Quality Demonstration Grant.



### Grants Coordination and Delineation

South Carolina state agencies and organizations are committed to coordinating all grant activities throughout the state, ensuring that each grant pursues unique objectives that will support the collective goal of certified EHR adoption and meeting meaningful use. The major theme and high level objectives of each funding opportunity are distinct and require each program to operate efficiently in order to support the overall HIT initiative in the state:



Expansion of the statewide HIE infrastructure project, SCHIEx, is being funded in part by the ONC through the HIE Cooperative Agreement. The HIE Cooperative Agreement will ensure that SCHIEx provides an HIE “dial tone” for providers to exchange data with each other and with other data sources across the state.

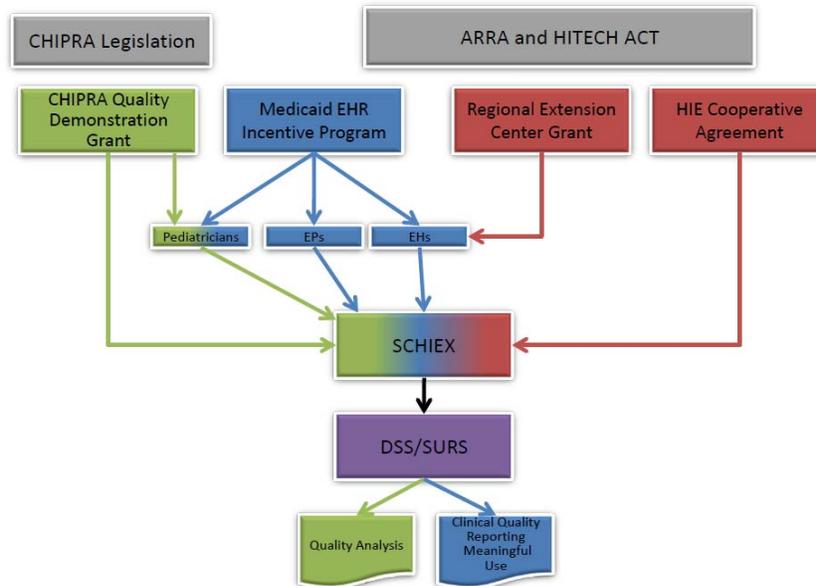
Eligible professionals (EPs) and eligible hospitals (EHs) will be able to pursue ARRA incentive payments for adopting certified EHR technology and becoming meaningful users. SCDHHS will leverage the Regional Extension Center’s regular grant-funded activities to help those providers who do not currently have or use an EHR to successfully select and adopt certified EHRs for their offices. Qualifying South Carolina providers will receive free services from the Regional Extension Center for up to one year if they sign up to receive services prior to April 6, 2011. After April 6, 2011, the Regional Extension Center will work with the provider to negotiate a rate for services. ARRA incentive payments and the Regional Extension Centers initiatives will provide the necessary resources to help clinicians’ offices become basic, but successful, adopters and meaningful users of EHRs.

The CHIPRA Quality Demonstration Project will assist providers to lessen the administrative burden for collecting additional quality measures. The grant supports the NCQA PCMH status. These standards include best practices for applying HIT, including certified EHR technology, in a provider practice.

The EHR Incentive Program will provide financial incentives to providers to adopt, upgrade, or implement certified EHR technology. Providers will also be compensated as they advance through meaningful use stages.

South Carolina is also taking a collaborative approach in grant administration by leveraging grant reporting. All grantees are beginning work to determine how information can be shared to assist in meeting each grant’s reporting requirements. SCDHHS hosts regular grant administration meetings to

provide updates on grant activities and identify points of collaboration. SCDHHS values this collaboration as these programs are dependent on each other and the success of SCHIEEx in order to operate effectively:



## SCHIEEx

### State Data Warehouse

In 1992, South Carolina established a state data warehouse in ORS. A proviso requires that all state agencies submit data to the warehouse for use in program evaluation and outcomes analysis. Each agency maintains control over its own data.

In 1996, state law mandated that all inpatient, emergency department, and outpatient claims meeting certain criteria must be submitted to the ORS with patient and provider identifiers. The South Carolina Data Oversight Council, a multi-stakeholder public authority, oversees the principles and protocols for the release of these data. This model provides a strong precedent for SCHIEEx and its governance.

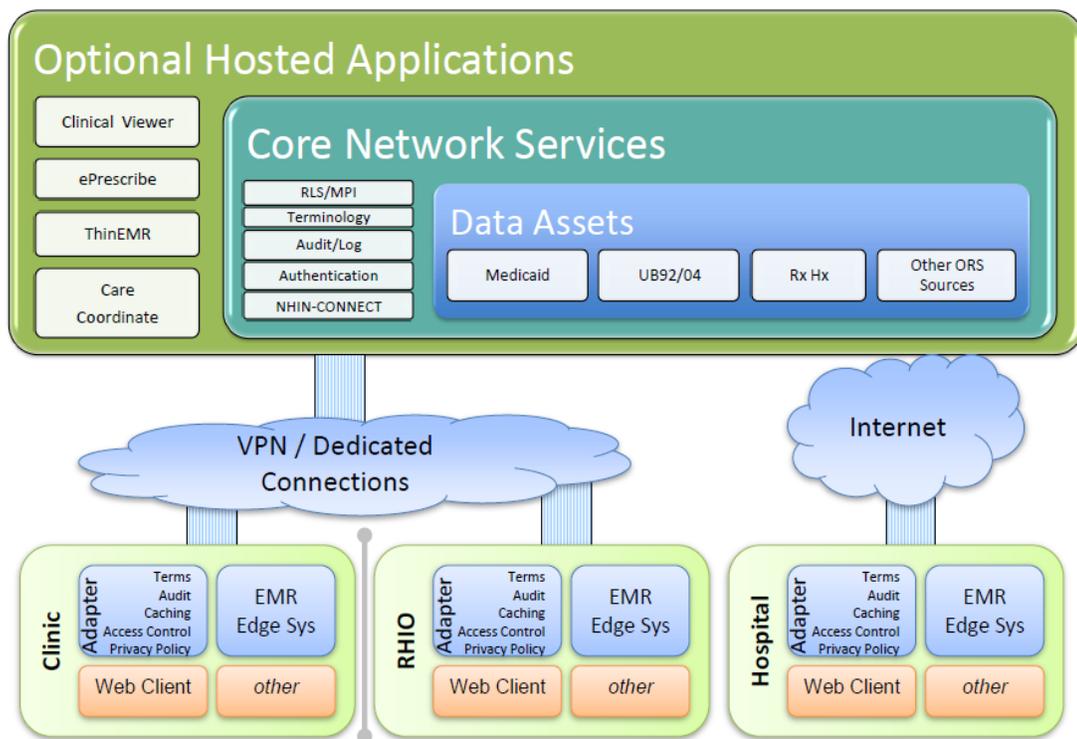
### SCHIEEx Development

In 2006, ORS partnered with CareEvolution, a private provider of secure HIE solutions, in the development of a production-level Master Patient Index (MPI) and Record Locator Service (RLS). CareEvolution donated the software supporting the MPI, which is at the heart of integrating the different physical records found in the various systems into one logical view of the patient. Development of the RLS/MPI was completed in 2007, creating an index and record location solution containing health information on over 4 million individuals. (This number includes both in- and out-of-state persons due to mobility and a 10-year time span.)

SCHIEx features include: federated and hosted clinical data; extensive access controls and auditing based on the “need to know”; and reporting tools for care management and coordination.

The SCHIEx architecture centers on the standards-based federated exchange of clinical information among providers that use EMRs. This federated service oriented architecture (SOA) is coordinated by a state-level RLS/MPI and is enhanced by a 10-year claims history that currently uses both Medicaid and hospital billing data (UB92/UB04).

The Block Diagram below is a high-level view of the SCHIEx design; an SOA technology stack that provides comprehensive but modular tools to deploy and operate an HIE. Core services are the RLS/MPI, terminology, audit/log, authentication, and Nationwide Health Information Network (NHIN) CONNECT. Optional services that will be certified modules are the clinical viewer, an ePrescribe module, the ASP EMR module, and care coordination. SCHIEx layers can be implemented in hybrid (federated/centralized) deployment models to best meet the specific needs to rationalize patient identity, create a unified patient health record, and deliver multiple “views” (consumer, provider, researcher) of the resulting interoperable data.



Pilot projects of SCHIEx include:

- **South Carolina Medicaid EHR (formerly known as EPHR):** The 2007 EPHR Pilot Project included five practices in five counties. The primary objective of the project was to place claims data in

the hands of providers in order that they could make the best decisions concerning patient care. ORS developed a clinical interface to display 12 months of Medicaid paid claims data. The EPHR dashboard view included diagnoses, eligibility information, medications, and clinical procedures. Notification letters and notices of privacy practices were mailed to Medicaid beneficiaries in the affected counties. Participating providers were responsible for obtaining opt-in consent from beneficiaries, which was a barrier to obtaining a high level of participation. Launched in July 2009, SCHIE used an opt-out beneficiary consent model to increase participation. At the close of the pilot, a survey of the participating providers showed a positive impact on patient care as patients may not fully disclose medical treatments received. This pc-based pilot project was a useful testing ground and precursor for the state's HIT development as ORS and its stakeholders developed the web-based HIE known as SCHIE. Below is a screenshot of the EPHR dashboard viewer.

**DOE, JOHN**  
 May 15, 1985 (21)  
 Medicaid ID: 123456789  
 Change Patient

**090030-09**  
 NPI: ORS8950  
 Provider: CMS USER  
 Logout

**Dashboard** | Inpatient (29) | Emergency Room (93) | Dental (0) | Medications (41) | State Agencies (0) | Notes (0)

**Diagnoses Past 12 Months**

- 09/01/2006 - 71945 JOINT PAIN-PELVIS (1)
- 07/22/2006 - 78703 VOMITING ALONE (9)
- 07/19/2006 - 2859 ANEMIA NOS (2)
- 06/19/2006 - 482 ACUTE PHARYNGITIS (1)
- 06/11/2006 - 986 TOX EFF CARBON MONOXIDE (1)
- 06/04/2006 - 490 BRONCHITIS NOS (2)
- 06/23/2006 - 28269 SICKLE-CELL ANEMIA NEC (21)
- 05/17/2006 - 5990 URIN TRACT INFECTION NOS (2)
- 07/22/2006 - 7862 COUGH (9)
- 06/23/2006 - 78099 78099 (15)

**Eligibility Information**  
 System down for maintenance!

**Postings / Notes**  
 No Postings / Notes

**Medications**

- 08/29/2006 - MORPHINE SULFATE IR 30 MG TB (2)
- 06/29/2006 - PROMETHAZINE 25 MG TABLET (1)
- 07/07/2006 - MORPHINE SULF 15 MG TABLET CR (1)
- 06/23/2006 - OXYCODONE W/APAP 5/325 TAB (1)
- 06/19/2006 - AZITHROMYCIN 250 MG TABLET (1)
- 06/16/2006 - ALBUTEROL 90 MCG INHALER (1)
- 06/06/2006 - METHADONE HCL 5 MG TABLET (1)
- 05/18/2006 - POTASSIUM CL 20 REC TAB SA (1)
- 05/18/2006 - AVELOX 400 MG TABLET (1)
- 08/31/2006 - EXJADE 500 MG TABLET (3)

**Clinical Procedures**

- 04/18/2006 - 82728 FERRITIN (1)
- 04/05/2006 - 36415 COLLECTION OF VENOUS BLOOD/VENIPUNCTURE (1)
- 04/04/2006 - Q9950 LO OSM CONTR MTRL,350-399MG/ML IODINE\_ML (1)
- 04/24/2006 - 99284 E/M EMERGENCY DEPARTMENT SERV LEVEL 4 (3)
- 03/22/2006 - 92883 VISUAL FLD W/DIAG EVAL EXTEND EXAM,S,ISSO (1)
- 03/10/2006 - 99223 E/M IP SERV INITIAL HOSP CARE LEVEL 3 (1)
- 03/24/2006 - 99222 E/M IP SERV INITIAL HOSP CARE LEVEL 2 (4)
- 03/01/2006 - C8951 IV INFUS, THERAPY/DIAGNOSIS, EA ADD'L HOUR (1)
- 02/07/2006 - 3893 VENOUS CATH NEC (1)
- 01/15/2006 - 71020 RADIOLOGIC EXAM CHEST TWO VIEWS FRON/LAT (1)

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In 2008, the EPHR project transitioned to a web-based EHR viewer, and authorized Medicaid providers can view a 10 year Medicaid claims history through SCHIE and access claims-based information on any of the state's 800,000 beneficiaries. From claims data, health information is available on diagnoses, prescriptions, procedures, etc., enabling a provider to access the health record of a patient. Beneficiaries were notified of the opt-out policy via beneficiary newsletters sent every quarter. New beneficiaries were notified of the opt-out policy in the card carrier containing their Medicaid cards. In order to opt out, beneficiaries must call the SCDHHS Resource center. Resource center staff log into the SCHIE site and input the opt-out request. As of June 2010, 330 beneficiaries have opted out. Future plans include adding clinical decision support features and making cosmetic changes to the viewer. Below is a screenshot of a sample patient's record. (See following page.)



- Lakelands Rural Health Network (LRHN):** In July 2007, through a HRSA grant, SCHIEx core services were leveraged to provide connectivity for the LRHN. The LRHN was granted access to Medicaid claims data. The LRHN is a Regional Health Information Organization (RHIO) that includes one regional hospital; three rural hospitals, two of which are critical access hospitals (CAHs); and over 20 primary care providers covering a six-county area in northwestern South Carolina. The LRHN has submitted an application for the Beacon Community grant.
- Connecting the Communities of Care:** In 2008, community health centers, free medical clinics and rural health clinics (RHCs) began connecting to SCHIEx as both data consumers and data providers. The Blue Cross Blue Shield Foundation of South Carolina funds this project, called “Connecting the Communities of Care” (CCC). The project provides for data exchange for a minimum of 30 sites per year over a three-year period. Data from this project are already fueling valuable research. For example, a recent study provided empirical evidence that use of a medical home (in this case, visits to free clinics connected to SCHIEx) significantly reduced patients’ inappropriate use of the emergency room.
- AccessHealth SC:** Funded by The Duke Endowment, the AccessHealth SC program includes hospitals, medical providers, and behavioral health providers. The program seeks to improve access to healthcare services for South Carolina's low-income uninsured population and has announced the selection of three communities that will receive technical assistance and support to establish local, coordinated networks of care for the low-income uninsured population. On June 15, 2009, three community based networks were selected: Kershaw County, Spartanburg County, and the LRHN. Technical discussions are underway to develop a SCHIEx deployment plan for the networks, as well as to enhance SCHIEx with a robust care coordination component that focuses on selected chronic diseases (most notably diabetes and congestive heart failure).
- SCDMH Telepsychiatry:** SCHIEx also supports a South Carolina Department of Mental Health (SCDMH) sponsored telepsychiatry initiative that provides 24/7 behavioral health consulting

services to hospital emergency departments statewide. As of June 8, 2009, the SCDMH has deployed six telepsychiatry video units with a plan to install up to another 59 over the next two years. Future plans include the real-time integration of the SCDMH EMR.

**SCHIEx Funding**

Nearly \$6 million has been spent to develop HIE capacity in South Carolina. These expenditures represent state and private funds as well as a significant gift to the state:

CareEvolution-RHIO HEADSTART gift value	\$1,945,000
SCHIEx-Medicaid (formerly EPHR) FY 2006-2010	\$1,221,526
Connecting the Communities of Care (BCBS Foundation of SC)	\$851,000
AccessHealth SC (The Duke Endowment)	\$160,000
Lakelands Connect (HRSA-Flex)	\$1,500,000
Rural Healthcare Quality Initiative (HSSC grant)	\$225,000
<b>Total HIE Expenditures</b>	<b>\$5,902,526</b>

Additional funding to support SCHIEx will be provided through the HIE Cooperative Agreement awarded to SCDHHS. At the conclusion of grant funding, user subscription fees will sustain the SCHIEx operation.

**National Health Information Network (NHIN) Connection**

SCHIEx currently has a connection, in test mode, to the Federal Health Architecture CONNECT 2.3 Compliant Gateway. As of June 2009, it is possible to manually send test messages. Participation in an NHIN trial implementation is a requirement and is expected to be a 2011 initiative. The NHIN Gateway will allow for the exchange of data among South Carolina providers, out-of-state providers, and federal entities that are registered as NHIN participants. ORS staff members are currently participating code contributors to the NHIN project.

ORS has also had direct discussions with the Social Security Administration about participating in NHIN phase III production trials. There has also been preliminary discussion with the Department of Defense (DoD) and Veterans Administration (VA) on potential exchange of information since there is a large military and retired military population in South Carolina.

In May 2010, the IGC approved the decision to make an application to the NHIN as an HIE Cooperative Agreement state.

## **Governance**

### **Governance Model**

South Carolina is developing its governance based on the Government-Led Electronic HIE model put forth by the National Governor's Association in the report *Public Governance Models for a Sustainable Health Information Exchange Industry* and contained in the report *Preparing to Implement HITECH: A State Guide for Electronic Health Information Exchange*. Given the limited existing private sector HIE efforts underway; the demographics of a small, largely rural state; and the state's interest in the outcomes to be gained by promoting statewide electronic HIE, a government-led HIE was the logical choice of approach. This approach is further supported by the fact that South Carolina already possesses the technical architecture to support and operate a statewide HIE and currently operates a limited Medicaid HIE on a statewide basis (SCHIEx).

### **Interim Governance Committee (IGC)**

SCHIEx is governed by an IGC. The IGC was established by Governor Mark Sanford in Executive Order 2009-15 on October 16, 2009 to recommend strategies and policies to successfully implement and sustain a statewide HIE in South Carolina (see Appendix B).

The IGC is a joint public and private entity made up of 11 members from various stakeholder groups, including executive officers and directors, or designees, from provider organizations, non-profit research institutions, and state agencies as well as consumer representation.

Letters of appointment, on behalf of SCDHHS and ORS, were sent to public and private stakeholders who have coalesced behind the creation of a statewide HIE and represent interests throughout the state. The 11-member committee, with stakeholder representation of approximately 60% public and 40% private stakeholders, includes the following representatives:

- President, South Carolina Hospital Association (SCHA)
- Chief Executive Officer, South Carolina Office of Rural Health (SCORH)
- President, South Carolina Medical Association (SCMA)
- Chief Executive Officer, South Carolina Primary Health Care Association (SCPHCA)
- President, South Carolina Pharmacy Association (SCPhA)
- Director, South Carolina Department of Health and Human Services (SCDHHS)
- Director, State Budget and Control Board Office of Research and Statistics (ORS)
- Commissioner, South Carolina Department of Health and Environmental Control (SCDHEC)

- Chairman of the Board, Lakelands Rural Health Network (LRHN)
- President and Chief Executive Office, Health Sciences South Carolina (HSSC)
- A consumer

The IGC, in cooperation with the HIT Summit stakeholders, selected SCHIEEx to be the state's HIE. SCHIEEx was developed by ORS and CareEvolution. The Director of ORS is a member of the IGC. Under the terms of the agreement between ORS and SCDHHS, ORS will continue to operate, house, and staff SCHIEEx. However, ORS will perform these tasks under the governance of the IGC, or SCHIEEx's future permanent governing body once the South Carolina Legislature passes enabling legislation.

The inaugural meeting was held on November 16, 2009. The SCDHHS Director is serving as the interim chairperson of the IGC. The IGC follows a monthly schedule for meetings.

Accordingly, the IGC, as the SCHIEEx governing body, is charged with performing the following specific tasks required for implementation of South Carolina's HIE:

- Identify and harmonize the federal and state legal and policy requirements that enable appropriate health information exchange services.
- Establish a statewide policy framework that allows incremental development of HIE policies over time, enables appropriate, inter-organizational health information exchange, and meets other important state policy requirements such as those related to public health and vulnerable populations.
- Implement enforcement mechanisms that ensure those implementing and maintaining HIE services have appropriate safeguards in place and adhere to legal and policy requirements that protect health information, thus engendering trust among HIE participants.
- Minimize obstacles in data sharing agreements.
- Ensure policies and legal agreements needed to guide technical services prioritized by the state are implemented and evaluated as a part of annual program evaluation.
- Establish a governance structure that achieves broad-based stakeholder collaboration with transparency, buy-in, and trust.
- Set goals, objectives, and performance measures for the exchange of health information that reflect consensus among the health care stakeholder groups and that accomplish statewide coverage of all providers for HIE requirements related to meaningful use criteria to be established by the Secretary through the rulemaking process.
- Ensure the coordination, integration, and alignment of efforts with Medicaid and public health programs through efforts of the State Health IT Coordinators.

- Establish mechanisms to provide oversight and accountability of HIE to protect the public interest.
- Account for the flexibility needed to align with emerging nationwide HIE governance that will be specified in future program guidance.

The IGC will perform these tasks through monthly meetings of the IGC and its subcommittees, through contracts between its state agency partners including ORS, and contracts with third-party contractors.

In its initial monthly meetings, the IGC focused on convening the state's healthcare stakeholders to build trust and consensus regarding the development of South Carolina's HIE. Each member of the IGC continues to engage his or her representative industry group to enhance knowledge of the HIE and to build support for the initiative. Since January 2010, however, the IGC has established subcommittees and increased its focus on four specific tasks:

1. Develop appropriate standards for SCHIE's privacy, security, and interoperability that align with state and federal standards;
2. Establish mechanisms to provide oversight and accountability to SCHIE and its participants;
3. Advise and assist with the development of proposed enabling legislation to create a permanent governing body for SCHIE; and
4. Explore ways to enhance the technical architecture and framework of SCHIE to promote meaningful use of EHRs by providers in South Carolina.

The Policy and Privacy Subcommittee has developed Policies and Procedures that set forth the privacy, security and accountability standards for SCHIE. These draft Policies and Procedures are presently being reviewed and discussed by the IGC before final approval. In addition, the Policy and Privacy Subcommittee, with the assistance of SCHIE's outside healthcare legal counsel and legal counsel from several South Carolina state agencies, is also developing a Participation Agreement and Business Associate Agreement that will ensure all participants in SCHIE agree to adhere to the SCHIE Policies and Procedures for responsible and confidential exchange of health information as well as SCHIE's enforcement and accountability requirements. Finally, although the IGC's proposed SCHIE legislation was not passed this session (as discussed below), the two measures needed to authorize the electronic transfer of patient records and lab data in South Carolina did pass the legislature.

The IGC proposed legislation through a sponsor during the 2009-2010 South Carolina legislative session that would have established a permanent governance body with rule making authority. However, because the 2009-2010 legislative session was a short session, the South Carolina Senate failed to pass the proposed SCHIE legislation before the end of the session although the South Carolina House did pass a version of the bill. Under the Executive Order, the IGC has the responsibility and authority to govern the SCHIE program with the cooperation of its state agency partners until permanent legislation is passed. Nonetheless, the IGC has established a Legislative Subcommittee to draft and propose

permanent legislation and build support among the various healthcare stakeholders in South Carolina with a goal of having the legislation passed early in the next legislative session. In the mean time, Proviso 89.120 (see Appendix C) that helps resolve some of the immediate barriers for EHR adoption and HIE was approved. The proviso addresses issues related to laboratory results and record movement:

**89.120.** (GP: Information Technology for Health Care) From the funds appropriated and awarded to the SC Department of Health and Human Services for the Health Information Technology for Economic and Clinical Health Act of 2009, the department shall advance the use of health information technology and health information exchange to improve quality and efficiency of health care and to decrease the costs of health care. In order to facilitate the qualification of Medicare and/or Medicaid eligible professionals and hospitals for incentive payments for meaningful health information technology (HIT) use, a health care organization participating in the South Carolina Health Information Exchange (SCHIE) or a Regional Health Information Organization (RHIO) or a hospital system health information exchange (HIE) that participates in SCHIE may release patient records and medical information, including the results of any laboratory or other tests ordered or requested by an authorized health care provider within the scope of his or her license or practice act, to another health information organization that requests the information via a HIE for treatment purposes with or without express written consent or authorization from the patient. A health information organization that receives or views this information from a patient's electronic health record or incorporates this information into the health information organization's electronic medical record for the patient in providing treatment is considered an authorized person for purposes of 42 C.F.R. 493.2 and the Clinical Laboratory Improvement Amendments.

Finally, the Technical Subcommittee continues to work toward implementation of statewide HIE for hospitals by the end of October 2010 and for individual providers by the end of January 2011. South Carolina is fortunate to have an existing HIE that has successfully implemented several pilot projects across the state. The Technical Subcommittee, along with the ORS which developed the SCHIE platform and operates the HIE, has made significant progress in adopting the enhancements that will enable participants to meaningfully use and exchange electronic health records in time to receive payments through the EHR Incentive Program. These enhancements include enabling participants to exchange lab data as well as submit and receive immunization data from the state's immunization registry at SCDHEC.

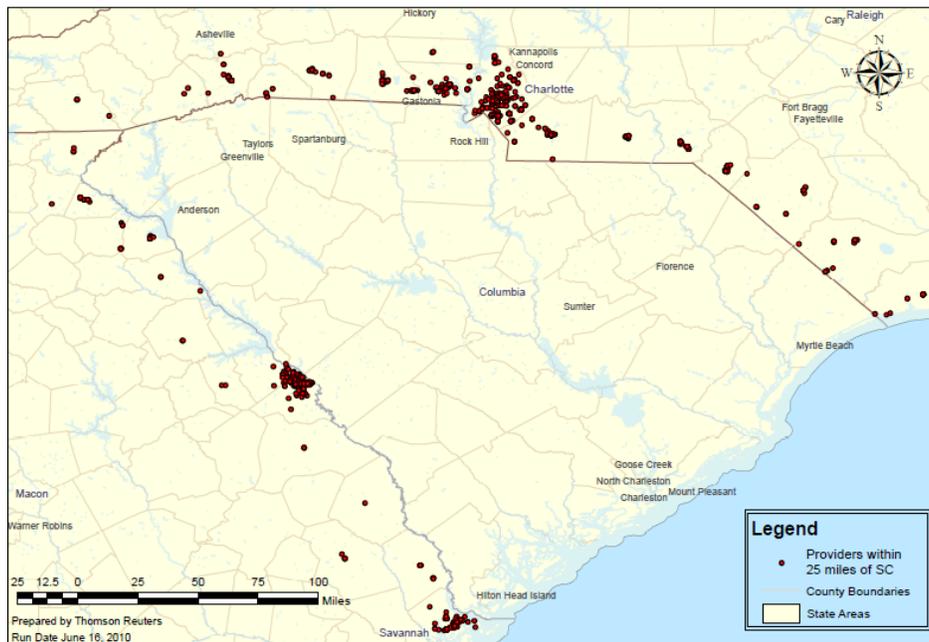
In addition to the foregoing subcommittees, the IGC has established an Operations Subcommittee to liaison with ORS staff and to develop the infrastructure – website, telephone help lines, sustainability plans, and office space – needed to operate a statewide HIE.

Presentations to the IGC and meeting minutes are available at <http://www.schiex.org/meetings.php>. Other information and updates (including policies and public notices) concerning the IGC are available at <http://www.schiex.org/governance.php>.

## Interstate Activities

During the HIE Leadership Forum in May 2010, South Carolina met with representatives from North Carolina and Tennessee in order to address interstate issues. South Carolina is also interested in working with Georgia to resolve interstate issues, but due to Georgia's extended planning period, discussions between the two states have been deferred at present.

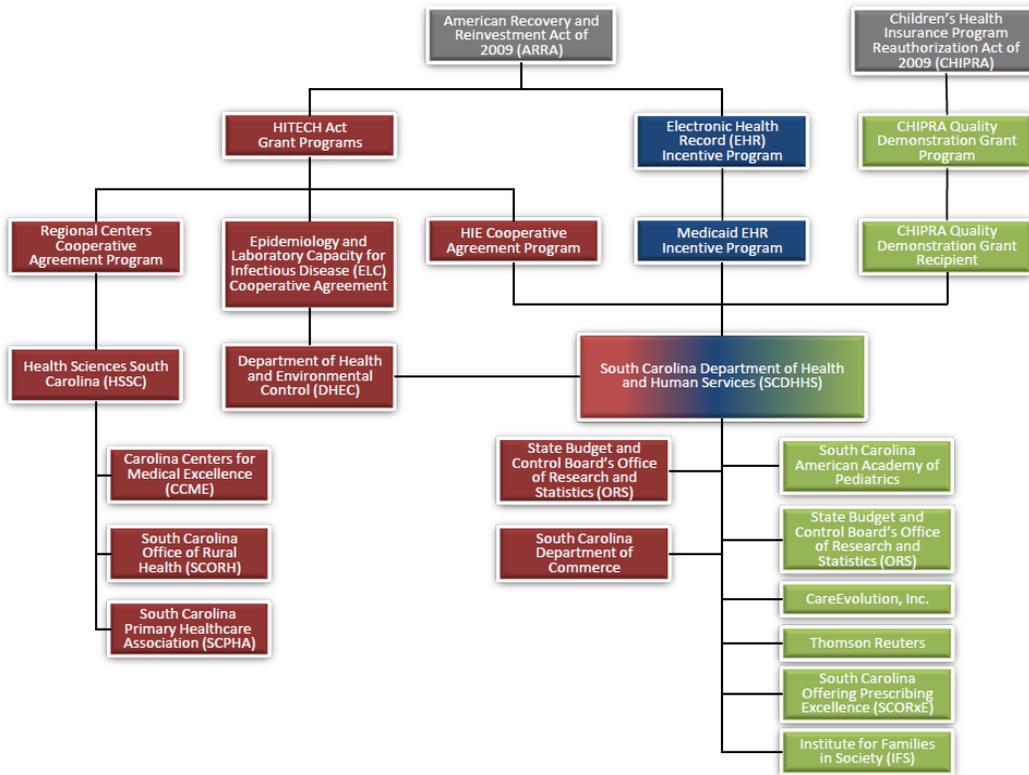
The next steps for South Carolina include establishing a workgroup with North Carolina and Tennessee and then developing an agenda to address interstate issues. The Charlotte, North Carolina and Rock Hill, South Carolina area share a good deal of clinical resources, indicating the importance in collaborating to resolve any interstate issues. The map below (see following page) identifies providers that border South Carolina and most likely serve Medicaid populations for two states.



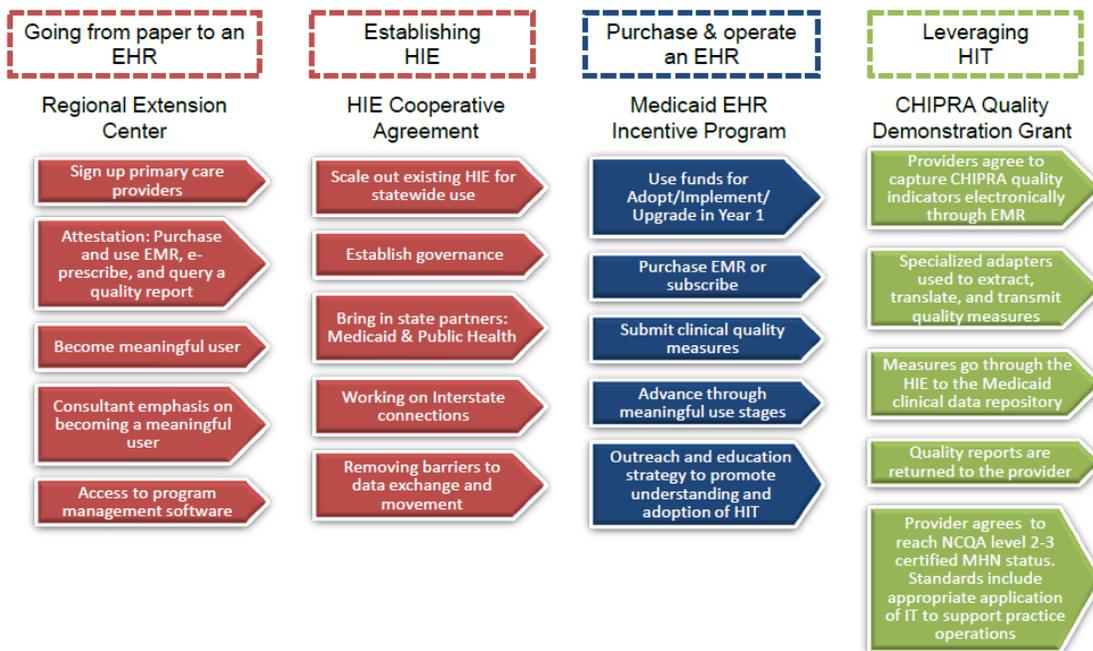
## Strategy to Meet Meaningful Use

Expanding the grant network, integration of the grants, and leveraging the unique aspects of the grants put the infrastructure in place for all providers to meeting Stage 1 meaningful use. The Medicaid agency, the HIE Cooperative Grant Coordinators, the State HIT Coordinator, the Regional Extension Center Coordinator, the Public Health Agency, and the South Carolina Chapter of the AAP are working collaboratively towards the goal of achieving HIT adoption, including certified EHR technology, and meaningful use.

The grants integrate in this manner (see following page):



The key theme and high level objectives of each funding opportunity are distinct and require each program to operate efficiently in order to support the overall HIT initiative in the state:



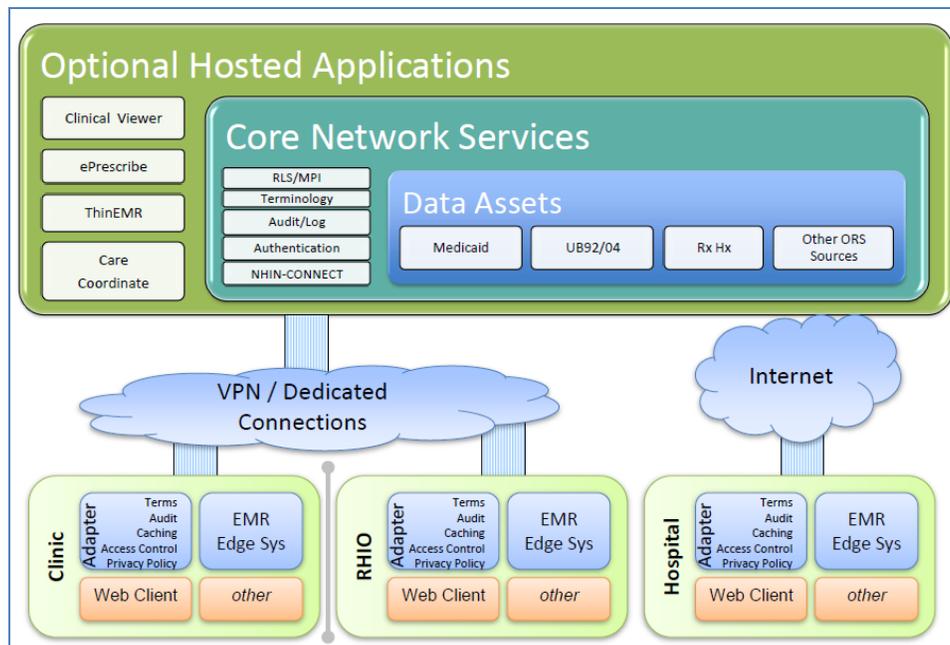
## SCHIEx – Sharing Patient Summaries across Unaffiliated Organizations

In 2006, ORS partnered with CareEvolution, a private provider of secure HIE solutions, in the development of a production-level MPI and RLS. CareEvolution donated the software supporting the MPI, which is at the heart of integrating the different physical records found in the various systems into one logical view of the patient. Development of the RLS/MPI was completed in 2007, creating an index and record location solution containing health information on over 4 million individuals. (This number includes both in- and out-of-state persons due to mobility and a 10-year time span.)

SCHIEx features include: federated and hosted clinical data; extensive access controls and auditing based on the “need to know”; and reporting tools for care management and coordination.

The SCHIEx architecture centers on the standards-based federated exchange of clinical information among providers that use EMRs. This federated service oriented architecture is coordinated by a state-level RLS/MPI and is enhanced by a 10-year claims history that currently uses both Medicaid and hospital billing data (UB92/UB04).

The Block Diagram below is a high-level view of the SCHIEx design; a service-oriented architecture (SOA) technology stack that provides comprehensive but modular tools to deploy and operate an HIE. Core services are the RLS/MPI, terminology, audit/log, authentication, and NHIN CONNECT. Optional services are the clinical viewer, an ePrescribe module, the ASP EMR module, and care coordination. SCHIEx layers can be implemented in hybrid (federated/centralized) deployment models to best meet the specific needs to rationalize patient identity, create a unified patient health record, and deliver multiple “views” (consumer, provider researcher) of the resulting interoperable data.



## Standards to Meet Meaningful Use Standards

The table below lists the appropriate data sharing communications procedures that are also relevant to meaningful use. Results from the IHE testing are available at the HIE Website under CareEvolution. At the IHE 2010 Connectathon, the underlying technology platform for SCHIEEx (HIEBus) successfully passed all 70 tests to be able to offer out-of-the-box connectivity that uses PIX/PDQ and XDS profiles to edge EMR systems.

Data Exchanged	Standard Used
<b>Continuity of Care Document (CCD)</b>	OASIS ebXML compliant RIMv3.0, RSv3.0, Queryv3.0, LCMv3.0, CMSv3.0 (HL7 V3 CDA R2 as specified in HITSP/C32 + HITSP/C83, /C80)
<b>Continuity of Care Record (CCR)</b>	OASIS ebXML compliant RIMv3.0, RSv3.0, Queryv3.0, LCMv3.0, CMSv3.0 (HL7 V3 CDA R2 as specified in HITSP/C32 + HITSP/C83, /C80)
<b>Other clinical summaries</b>	<p>HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, TIF.</p> <p>IHE 2010 certification Profiles: PIXv2 and PIXv3 consumer, source, x-ref manager (IHE); XDS.b consumer, source, repository, registry (IHE &amp; HITSP); ATNA (IHE &amp; HITSP); Secure Node (IHE &amp; HITSP)</p>
<b>Clinical patient notes</b>	<p>HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, and TIF.</p> <p>IHE 2010 certification Profiles: PIXv2 and PIXv3 consumer, source, x-ref manager (IHE); XDS.b consumer, source, repository, registry (IHE &amp; HITSP); ATNA (IHE &amp; HITSP); Secure Node (IHE &amp; HITSP)</p>
<b>Consultations and Referrals</b>	<p>HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, and TIF.</p> <p>IHE 2010 certification Profiles: PIXv2 and PIXv3 consumer, source, x-ref manager (IHE); XDS.b consumer, source, repository, registry (IHE &amp; HITSP); ATNA (IHE &amp; HITSP); Secure Node (IHE &amp; HITSP)</p>
<b>Dictation Notes</b>	<p>HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, TIF.</p> <p>IHE 2010 certification Profiles: PIXv2 and PIXv3 consumer, source, x-ref manager (IHE); XDS.b consumer, source, repository, registry (IHE &amp; HITSP); ATNA (IHE &amp; HITSP); Secure Node (IHE &amp; HITSP)</p>

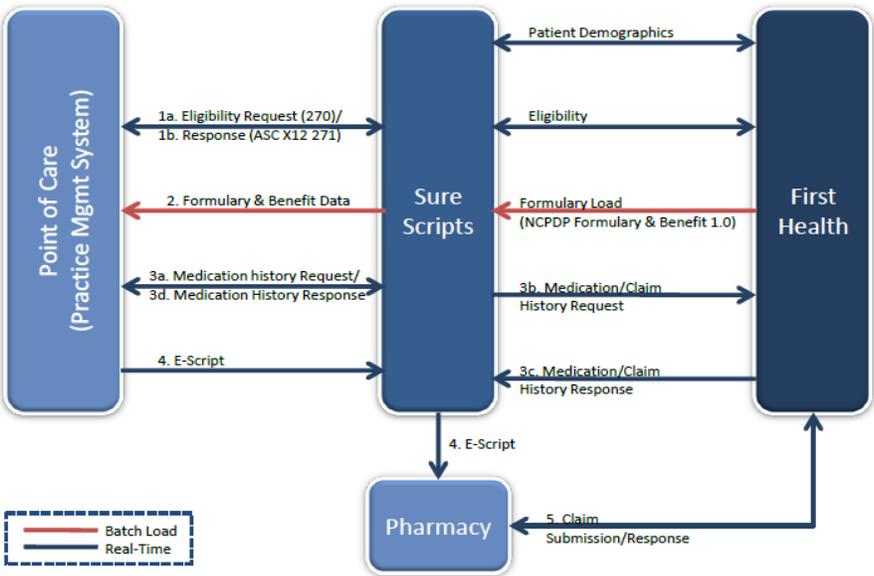
Data Exchanged	Standard Used
<b>Lab</b>	<p>HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, TIF.</p> <p>IHE 2010 certification Profiles: PIXv2 and PIXv3 consumer, source, x-ref manager (IHE); XDS.b consumer, source, repository, registry (IHE &amp; HITSP); ATNA (IHE &amp; HITSP); Secure Node (IHE &amp; HITSP)</p>
<b>Radiology</b>	<p>RESULTS: HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, and TIF.</p> <p>IMAGES: We provide desktop integration with GE and Phillips PACS iSiteviewers.</p>
<b>Cardiology</b>	<p>RESULTS: HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, and TIF.</p> <p>IMAGES: We provide desktop integration with GE and Phillips PACS iSiteviewers.</p>
<b>Other ancillary results</b>	<p>I RESULTS: HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, and TIF.</p>
<b>Digital chart information</b>	<p>RESULTS: HL7 2.3, 2.4, 2.5, 2.5.1, 2.6. HL7 3.0. Custom interfaces to manage RTF, PDF, JPG, TIF.</p>
<b>e-Rx</b>	<p>SureScripts Certified Solutions Provider for ePrescribe. (v4.2)</p>
<b>Medication history</b>	<p>SureScripts Certified Solutions Provider—Prescription Benefits</p> <p>Also managed with CCD/CCR as described above.</p>
<b>PBM/formulary integration</b>	<p>SureScripts Certified Solutions Provider – Prescription Benefits</p>
<b>Patient messaging/alerts</b>	<p>Custom/ proprietary</p>
<b>PHR integration</b>	<p>Microsoft Healthvault Certification</p>
<b>Home-based monitoring integration</b>	<p>Database integration with Horizon Homecare v10.2.x</p>
<b>Reporting/receiving immunization data</b>	<p>HL7 2.x. HL7 3.0 CDA (per HITSP C78)</p>
<b>Provider alerts to and from public health</b>	<p>Custom/ proprietary. HL7 2.5.1.</p>

Data Exchanged	Standard Used
<b>Other population health reporting/exchange</b>	IHE 2010 certification Profiles: PIXv2 and PIXv3 consumer, source, x-ref manager (IHE); XDS.b consumer, source, repository, registry (IHE & HITSP); ATNA (IHE & HITSP); Secure Node (IHE & HITSP)
<b>Disease management reporting/exchange</b>	Custom/ proprietary. HL7 2.3.

**Medicaid ePrescribing Initiative**

First Health (Magellan Health Services) is under contract with SCDHHS to manage pharmacy point of sale claims and electronic eligibility checks. The Medicaid Management Information System (MMIS) processes these claims. South Carolina is one of seven states that have a connection with their prescription history to SureScripts. SureScripts is the software used by practice management systems in physicians’ office when a script for a Medicaid patient is entered. The practice management systems contract with SureScripts for ePrescribing. SureScripts is the intermediary between the providers practice management software and First Health. SureScripts checks the eligibility, the formulary, and the medication history of the patient with First Health before the Pharmacy fills the script. First Health processes the claim and pays SureScripts transaction fees with the dollars paid by SCDHHS based upon the SCDHHS contract with First Health.

The diagram below depicts the ePrescribing transaction workflow and shows how the Medicaid provider achieves the meaningful use criteria for the ePrescribing requirement. This is an example of an integrated approach used to engage existing SCDHHS contractors to implement the EHR incentive program. A by-product of this integrated effort is evident in the increased reporting capabilities since SureScripts can provide reports showing EPs’ use of ePrescribing.



SCHIEx is also making available a SureScripts certified ePrescribe application to enable any interested provider in the state to be able to “write” electronic prescriptions. This application will become a certified module so that providers may use it to qualify for EHR incentives.

The table below shows the steady increase of ePrescribing utilization for South Carolina:

Year	% Physicians Routing Prescriptions Electronically	% Patients with Available Prescription Benefit/History Information	% Community Pharmacies ePrescribing Activated
2007	1%	55%	66%
2008	7%	61%	79%
2009	8%	61%	92%

Further, the monthly volume of Medicaid ePrescribing utilization is increasing:

Month	% of Medicaid ePrescriptions
January 2010	1.8%
February 2010	2.2%
March 2010	2.5%
April 2010	3.2%
May 2010	4.5%
June 2010	5.1%

### Immunization Registry Exchange via SCHIEx

Other state entities including ORS and SCDHEC will complete technical work to connect SCDHEC’s disease and immunization registries to SCHIEx. The SCDHEC registries are not currently connected to SCHIEx. However, establishing a connection is an early priority as it will fulfill SCHIEx’s support of the meaningful use requirement for immunizations. Recently, Medicaid implemented a new requirement for Medicaid claims to include CPT codes, which includes immunization data. Medicaid sends a data feed to ORS, which sends it to SCDHEC to populate the immunization registry and increase its data stores. ORS will enhance SCHIEx further to include clinical components and care coordination features.

SCDHEC’s collaboration with SCHIEx core infrastructure pertains to the interoperability for bi-directional exchange of immunization records, which is an ARRA related initiative and fundamental to achieving meaningful use. The project to connect the SCDHEC immunization registry i.e., CARES and the IIS to SCHIEx is currently in progress. This includes plans to connect IIS to multiple EMRs via an adapter to SCHIEx. ORS is providing the adapter to SCDHEC. This adapter will sit in front of the current HL-7 infrastructure at SCDHEC and act as a universal translator for EMRs who are also participating in SCHIEx. SCDHEC will also maintain the ability to connect directly to the EMR for those that are not connected to

SCHIEx. The goal is to allow for vaccine records to be registered and also immunization certificates printed by providers across the state.

The immunization registry consists of CARES, the history and analytics repository for the registry, and the IIS, the SCDHEC HL-7 Enabled IIS providing the messaging infrastructure. The IIS meets the requirements of the CDC Implementation Guide for Immunization Data Transactions, Version 2.2. It is capable of processing the standard transactions of VXQ, VXR, VXX, and VXU. Currently SCDHEC is limited to one private provider EMR connected to the IIS. This provider’s system is only capable of sending VXU transactions.

The first step of this plan is to test HL7 transactions between CARES/IIS and SCHIEx using secure messaging followed by “application testing” which consists of sending and querying of immunization records. This testing is followed by “integration testing which includes integration of CARES with the SCHIEx RLS. This completes the integration of the IIS immunization Adapter with the SCHIEx core services. The final result will be a bi-directional interaction between SCHIEx and the immunization registry by August 2010.

SCDHEC is currently testing the HL7 messaging with SCHIEx. When the adapter is in place, SCDHEC will be able to connect to the RLS. When this has been accomplished, EPs and EHs will be able to achieve meaningful use requirements such as demonstrating the ability to electronically submit data to immunization registries and actual submission where required and accepted.

### **Centers for Disease Control and Prevention (CDC) Epidemiology and Laboratory Capacity (ELC) for Infectious Diseases**

In September 2010, SCDHEC received \$310,000 from a CDC grant to improve its current state public health laboratory computer and IT capabilities for transmitting reportable lab results to and from local, state, and national public health agencies and lab test results and test orders from and to hospital affiliated laboratories, medical providers, and their EHRs. Grant partners include the BOL, the BDC, and the PHSIS.



Grant Objective:

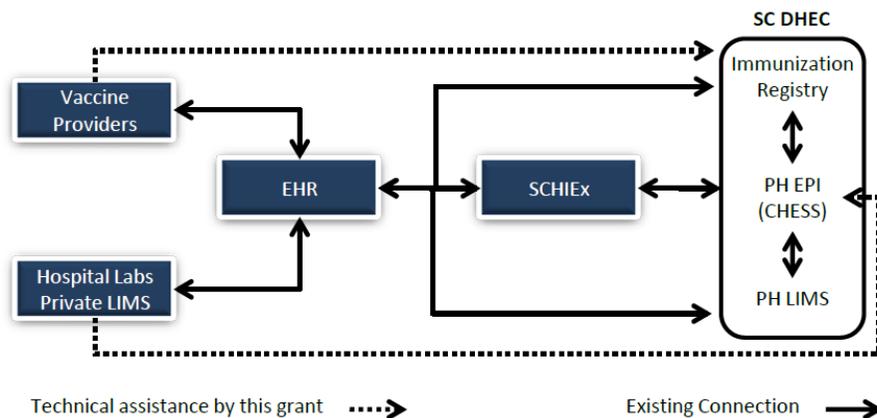
- SCDHEC will expand the current state public health laboratory computer and IT capabilities.

Grant Outcome:

- SCDHEC’s developmental work will complete the needed infrastructure to enable providers to meet Stage 1 meaningful use requirements.

SCDHEC will complete, within the grant period, all the required activities and also expand the development to include infrastructure and interoperability with other existing systems to meet Stage 1 meaningful use requirements.

SCDHEC plays a key role in the state’s HIE initiative in support of the grant requirement for the Stage 1 Meaningful use and also due to a critical need for exchanging timely ELRs with medical providers to perform their legally-mandated public health responsibility. This additional funding is being sought to further develop and implement the Sample Master Laboratory Information Management System (LIMS) capabilities to permit additional two-way lab data transmissions with medical providers, the public health agency and the CDC. The additional funding will allow for sufficient resources to implement overarching infrastructure and interoperability including the LIMS, immunization registry, and syndromic surveillance systems together to enhance SCDHEC’s epidemiology and laboratory capacities as a whole. This enhanced capacity will allow information flow that interconnects medical providers’ EHRs with the state public health labs and the public health programs for effective disease investigation, surveillance, and intervention. The figure below shows the planned infrastructure to support this initiative.



### SC DHEC Infrastructure and Interoperability Support to Satisfy Stage 1 Meaningful Use

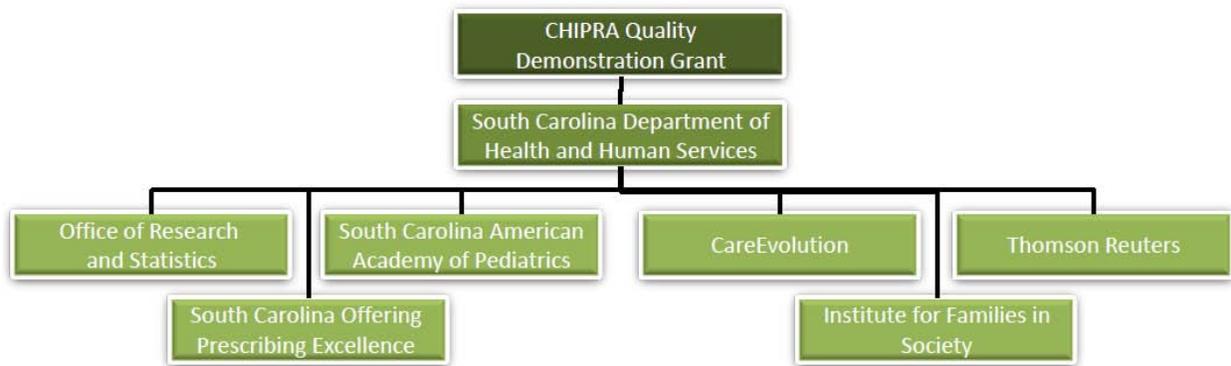
The SCDHEC BOL is a centralized state public health laboratory with statewide jurisdiction. South Carolina Law §44-29-10 and §17-5-560 require reporting of laboratory results (<http://www.dhec.sc.gov/administration/library/CR-009036.pdf>), conditions (<http://www.scdhec.gov/administration/library/CR-009025.pdf>), deaths and their causes from

contagious or infectious diseases and or other terrorism to the SCDHEC, BDC, and the Office of Vital Record.

The overall focus of this grant is to successfully transmit two-way reportable lab results among the Bureau of Lab LIMS, the BDC CHES, the CDC, and other state public health labs and also to allow electronic sending and receiving of lab test orders and test results from the BOL LIMS by medical providers.

### CHIPRA Quality Demonstration Grant Program

SCDHHS was awarded one of the 10 CHIPRA Quality Demonstration Grants on February 22, 2010 and received a grant award totaling \$9,277,361. The grant program includes a nine-month planning phase to be completed in the first year prior to implementation of the proposed project. SCDHHS has named its demonstration project the QTIP project. Grant partners include ORS, the South Carolina Chapter of the AAP, CareEvolution, Thomson Reuters, the SCORxE program, and IFS.



#### Grant Objectives:

- Providers will demonstrate the ability to collect the new CHIPRA measures using certified EHR technology and view quality reports prepared by Thomson Reuters.
- Providers will pursue NCQA certification of the PCMH model.
- Providers will identify quality improvement tactics that will impact their practices.

#### Grant Outcomes:

- SCDHHS will determine the impact of collecting CHIPRA measures and identify any barriers that impeded data collection.
- SCDHHS and its grant partners will create a clinical data repository and the necessary adapters that are capable of delivering quality report cards via SCHIEx to providers' EHRs.

SCDHHS maintains a positive relationship with the state chapter of the AAP, and as part of a grant funding request for the CHIPRA Quality Demonstration Grant Program, SCDHHS, the South Carolina

chapter of the AAP, and other grant partners proposed to automate the collection of CHIPRA quality measures; to minimize the apparent overlap in different quality measures sets; and to create a provider friendly continuous closed-loop, quality improvement infrastructure. Using the existing SCHIEx infrastructure, participating providers will “connect” to each other to better deliver coordinated care using the PCMH model. Quality reports will be prepared in the Thomson Reuters Advantage Suite database and then returned to providers via SCHIEx for viewing in their EHR or the ASP EMR module solution.

While the proposed demonstration project focuses on South Carolina’s pediatric primary care practices, the lessons learned from this type of project would be valuable to the larger provider community.

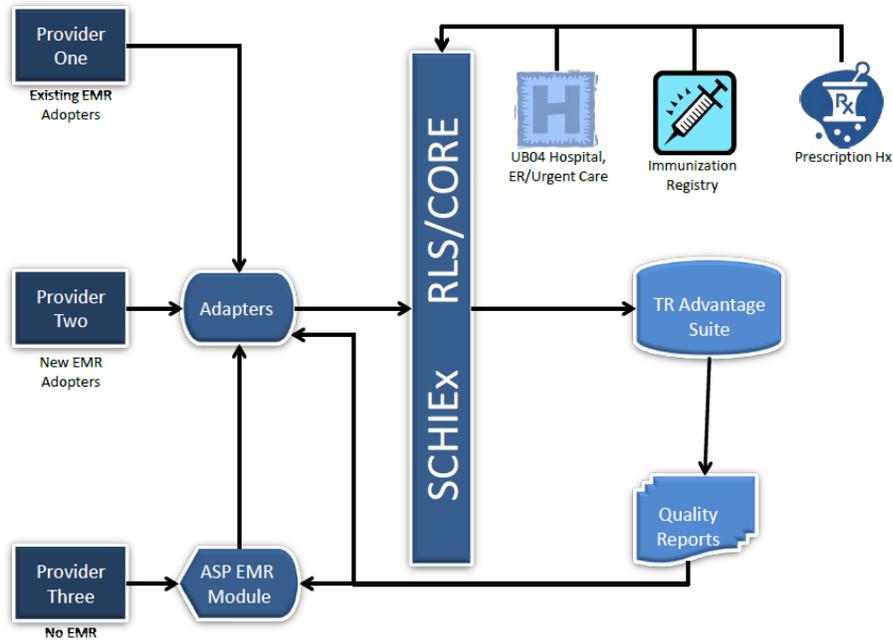
The following report example is intended for use by a provider to easily assess quality measures related to individual patients. SCDHHS’ vision is that such real-time feedback would alter practice patterns where there are opportunities for improvement in meeting accepted evidence-based best practices.

South Carolina Department of Health and Human Services Provider Report: Medicaid Patient Level Metrics							
Provider	Provider 1234 Joan Smith, MD						
Time Period	CY 2009						
Person ID	Gender	Recorded BMI	BMI Status	Chlamydia Screening	EPSDT Dental Visits	ER Visits per Patient	ER Status
153664601	Male	26.2	⊗	n/a	✓	3	⊗
155078802	Female	24.2	✓	✓	✓	2	✓
155881491	Female	27.1	⊗	⊗	✓	0	✓
156409502	Female	20.8	✓	✓	⊗	1	✓
157265002	Male	21.2	✓	n/a	✓	2	✓
157270502	Female	23.7	⊗	✓	⊗	5	⊗
158056201	Female	24.6	⊗	✓	✓	4	⊗

The report example below displays quality measures for the total patient population of a provider.

South Carolina Department of Health and Human Services Medicaid Total Report: Provider Level Metrics									
Subset	SCHIP								
Time Period	CY 2009								
Provider ID	Overall Status	BMI Recorded	BMI Status	Chlamydia Screening	Chlamydia Screening Status	EPSDT Dental Visits	Dental Status	ER Visits per 1,000	ER Status
353664603	⊗	77%	⊗	34%	✓	52%	✓	610	⊗
355078802	✓	84%	✓	56%	⊗	55%	✓	499	✓
355883493	⊗	79%	⊗	49%	⊗	55%	✓	493	✓
356409502	✓	88%	✓	41%	✓	49%	⊗	490	✓
357265002	✓	88%	✓	57%	✓	51%	✓	493	✓
357270502	⊗	69%	⊗	47%	⊗	52%	✓	622	⊗
358056203	⊗	75%	⊗	40%	✓	53%	✓	616	⊗

The diagram below (see following page) is a high-level articulation of the overall proposed technology infrastructure to support the grant project:



As the diagram indicates, edge adapters configured with existing provider EHRs (and new adopters) will extract the clinical documentation from the EHR, transform, standardize, codify the resultant data per national standards, and transmit the data to SCHIEx. For providers without full-scale EHRs, an ASP EMR module will be provided to collect the necessary quality data for their patient population. The SCHIEx HIE backbone serves as a clearinghouse of information related to the patient. Emergency room visits, lab results, prescription histories, and immunization data are combined with data directly extracted from the provider EMR. CareEvolution and Thomson Reuters will seamlessly integrate their efforts so that standardized data from edge adapters arrives in the DSS data warehouse, which generates the quality reports. The quality reports are delivered back to the providers as a “tab” on their ASP EMR module or via a web portal integrated with the EMR.

### Results from Pilot Test to Transfer Clinical Data to Medicaid Decision Support System

In January 2010, SCDHHS, CareEvolution, Carolina Health Centers, and Thomson Reuters entered into an agreement to test the data exchange, data elements and measure development for EMR data.

Players and roles were as follows:

- Carolina Health Centers: Allowed access to provider network for analysis (about 1,445 patients).
- CareEvolution provided EMR data for the Carolina Health Centers providers.
- Thomson Reuters and CareEvolution partnered to exchange the data.
- Thomson Reuters loaded the data, evaluated data quality, developed the measures and produced results.

The project timeline resulted in success:

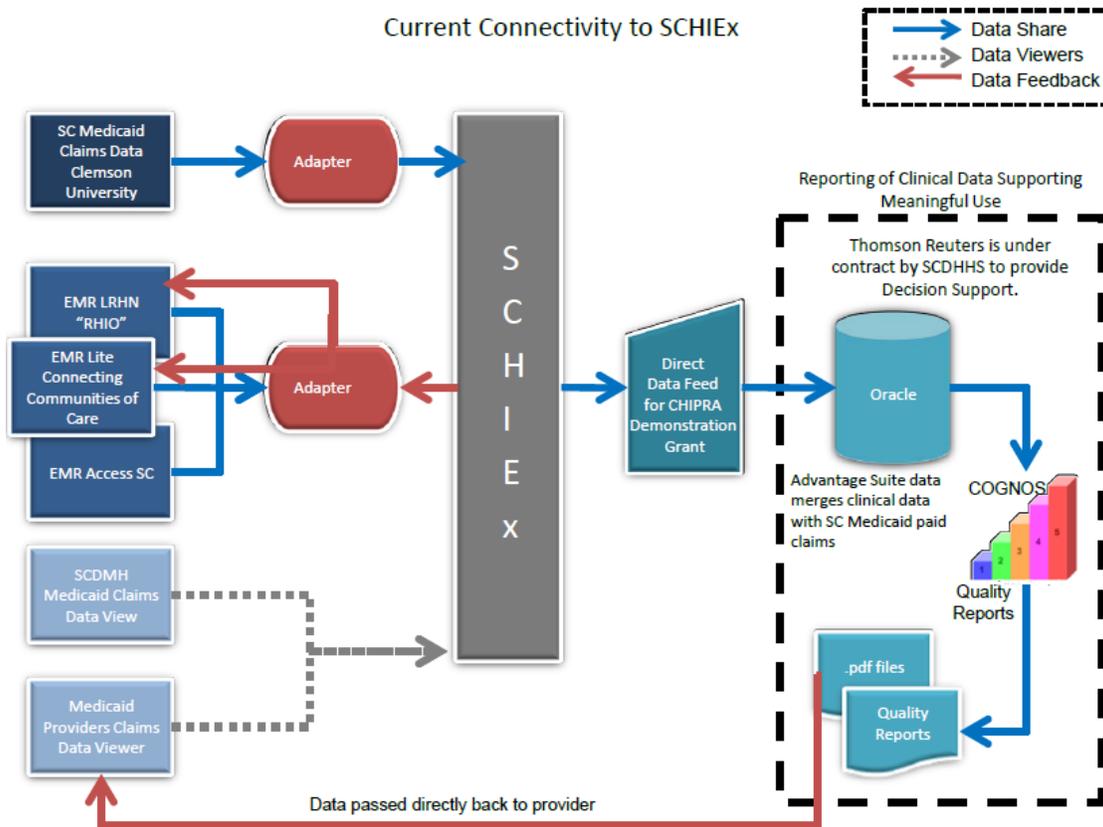
Date	Milestone/Activity
January 2010	Define pilot and obtain permission from SCDHHS and the Carolina Health Centers (the FQHC hospitals in Lakelands on SCHIEX).
February-March 2010	Develop file layout and needed data elements with CareEvolution.
March 2010	Send clinical data from CareEvolution to Thomson Reuters.
March-April 2010	Determine programming logic, new fields, and database changes to store HIE clinical data in Advantage Suite.
May 2010	Load HIE data into Advantage Suite; Develop four CHIPRA (2) and Meaningful Use (2) measure specifications reports.
June 2010	Share data results with SCDHHS, CareEvolution, and the Carolina Health Centers.

The table below lists values and measures that were reported as a result of the pilot project:

Area	Measure	CY 2009 Numerator	CY 2009 Denominator	CY 2009 Rate	Comments
Obesity	The percentage of members 2-18 years of age who had an outpatient visit and who had their body mass index documented during the measurement year.	173	291	59.5%	Denominator reflects the number of (CHC) patients ages 2-18. Numerator reflects BMI reported, not calculated.
Blood Pressure	The percentage of hypertensive patients with blood pressure under control within measurement year.	125	377	33.2%	Denominator reflects the number of patients with hypertension. Numerator reflects BP under control, most recent measure.
Cholesterol	The percentage of patients with LDL under control (< 100).	153	1,173	13.0%	Denominator reflects the number of patients with lab results.

Area	Measure	CY 2009 Numerator	CY 2009 Denominator	CY 2009 Rate	Comments
Hemoglobin	The percentage of diabetic patients with A1C under control.	42	263	16.0%	Denominator reflects the number of patients with diabetes. Numerator reflects A1C under control, most recent measure.

The diagram below shows the technology to be leveraged for transferring clinical data on a larger scale. The pilot project with Carolina Health Centers served as a useful testing environment to better understand how the planned technology will assist providers in meeting meaningful use.



## Project Plan to Meet Meaningful Use

The project plan addresses the tasks and subtasks necessary to implement SCHIEx throughout the state. The responsibilities in the project schedule are in alignment with grant partners who are engaged in this project. There are placeholders in the plan for NHIN governance training and review of state HIE toolkit updates as they become available.

The project schedule lists the tasks and the parties responsible for completion. The responsibilities correlate with the grant team (i.e., the state agencies and partners who are contractually committed to fulfilling role in the initiative). The project schedule also contains tasks or placeholders for the annual review of:

- Strategic plan
- Operational plan
- Business plan (sustainability model)
- Evaluation of policies and legal agreements

The project plan is composed of sections which address project management and grant administration in addition to the tasks associated with meeting the requirements of the five domains. While the initial focus of this plan was to define and schedule tasks associated with implementing SCHIEx state wide, the plan continues to be built out to reflect progress towards building the infrastructure for meeting meaningful use. This is demonstrated in the expanded technical infrastructure section which contains the tasks required to build the connection to the immunization registry, and the work associated with laboratory reporting. There are tasks in the plan to reflect work already in progress pertaining to SCHIEx optional services for meeting meaningful use objectives. SCHIEx currently offers ePrescribing, ASP EMR module, continuity of care documents (CCD), and continuity of care records (CCR).

Task Category/Task Sub-Category/Task	Start Date	End Date	Stakeholders
Project Management	1/7/10	3/1/12	SCDHHS, ORS
Project Planning	1/7/10	11/9/11	SCDHHS, ORS
SCHIEx organizational chart, relationships, responsibilities	4/5/10	4/30/10	SCDHHS, ORS
SCHIEx project plan with key milestones and dates	4/5/10	4/30/10	SCDHHS, ORS
Project plan updates/ review	4/5/10	3/4/11	ORS, IGC
HIT Summits - ongoing	1/7/10	11/9/11	SCDHHS, HSSC
Coordination with other ARRA Programs	1/7/10	11/9/11	SCDHHS, HSSC
Project Tracking	4/30/10	3/1/12	SCDHHS, ORS
Project reporting	4/30/10	3/1/12	SCDHHS, ORS
Issues management	4/30/10	3/1/12	SCDHHS, ORS
Risk Management	4/30/10	3/1/12	SCDHHS, ORS
Change Management	4/30/10	3/1/12	SCCHHS, ORS

Task Category/Task Sub-Category/Task		Start Date	End Date	Stakeholders
	Project Evaluation	1/7/10	3/31/10	SCDHHS, ORS
	Define Performance Measures (volume statistics)	1/7/10	3/31/10	SCDHHS, ORS
	Create reporting tools	1/7/10	3/3/10	SCDHHS, ORS
Environmental Scan		12/1/09	1/8/16	SCRHRC
	High level scan	12/4/09	12/4/09	SCRHRC
	Perform Detailed Environmental Scan	12/1/09	1/1/10	SCRHRC
	Compile results of detail scan	1/4/10	1/22/10	SCRHRC
	Summary of Key Findings for Strategic Plan	1/22/10	1/22/10	SCRHRC
	Review results with stakeholders	1/22/10	4/15/10	SCRHRC
	Follow up environmental scan - 12 month	7/12/10	10/1/10	SCRHRC
	Set goals for HIT adoption and meaningful use	2/16/10	3/29/10	SCRHRC
	Provide input to Regional Extension Center	2/16/10	4/12/10	SCRHRC
	Provide input for sustainability model	2/16/10	4/12/10	SCRHRC
	Annual Environmental scan	9/6/11	1/9/12	SCRHRC
	Annual Environmental scan	9/6/12	1/9/13	SCRHRC
	Annual Environmental scan	9/6/13	1/9/14	SCRHRC
	Annual Environmental scan	9/6/14	1/9/15	SCRHRC
	Annual Environmental scan	9/6/15	1/8/16	SCRHRC
Governance		10/16/09	4/27/15	SCDHHS, ORS
	Establish Interim Governance	10/16/09	10/16/09	SCDHHS
	Legislation for permanent Governance	1/11/10	2/8/10	IGC
	Document development of governance/policy structures	2/9/10	4/27/15	IGC
	Subcommittees	1/21/10	6/8/11	IGC
	Policy and Privacy Subcommittee (ongoing)	1/21/10	6/8/11	IGC
	Technology Subcommittee (ongoing)	1/21/10	6/8/11	IGC, ORS
	Operations Subcommittee (ongoing)	1/21/10	6/8/11	IGC, ORS
	NHIN Governance training (TBD) - ongoing	6/28/10	11/11/11	IGC, ORS
	Review updates to HIE toolkit (TBD) ongoing	6/28/10	11/11/11	IGC, ORS
	Annual review: Strategic and Operational plan	1/15/11	2/9/15	IGC
	Review Strategic and Operational plan	1/15/11	2/9/11	IGC
	Review Strategic and Operational plan	1/15/12	2/8/12	IGC
	Review Strategic and Operational plan	1/15/13	2/7/13	IGC
	Review Strategic and Operational plan	1/15/14	2/7/14	IGC
	Review Strategic and Operational plan	1/15/15	2/9/15	IGC
	Review Alignment with other federal initiatives (ARRA)	2/8/11	2/9/15	IGC, ORS
	Review SCHIEx alignment with other federal programs	2/8/11	2/9/11	IGC, ORS
	Review SCHIEx alignment with other federal programs	2/7/12	2/8/12	IGC, ORS
	Review SCHIEx alignment with other federal programs	2/6/13	2/7/13	IGC, ORS
	Review SCHIEx alignment with other federal programs	2/6/14	2/7/14	IGC, ORS

Task Category/Task Sub-Category/Task		Start Date	End Date	Stakeholders
	Review SCHIEEx alignment with other federal programs	1/15/15	2/9/15	IGC, ORS
Finance		12/1/09	4/28/16	SCDHHS, DOC
	Planning (Estimates and Staffing Plan)	12/1/09	12/25/15	DOC
	Contract with SC Department of Commerce (DOC)	12/1/09	5/31/10	DOC, SCDHHS
	Develop sustainability model	12/1/09	3/31/10	ORS
	Test sustainability model	4/21/10	10/11/10	ORS
	Implement sustainable model	7/12/10	8/20/10	ORS
	Review and evaluate sustainable model	10/25/10	12/24/10	ORS
	Review and evaluate sustainable model	10/25/11	12/26/11	ORS
	Review and evaluate sustainable model	10/25/12	12/26/12	ORS
	Review and evaluate sustainable model	10/25/13	12/26/13	ORS
	Review and evaluate sustainable model	10/25/14	12/26/14	ORS
	Review and evaluate sustainable model	10/25/15	12/25/15	ORS
	Controls and reporting	4/5/10	4/28/16	ORS, SCDHHS
	Progress report to ONC	6/1/10	8/3/10	SCDHHS
	Progress report to ONC	6/1/11	8/2/11	SCDHHS
	Progress report to ONC	6/1/12	8/2/12	SCDHHS
	Progress report to ONC	6/1/13	8/2/13	SCDHHS
	Progress report to ONC	6/1/14	8/1/14	SCDHHS
	Progress report to ONC	6/1/15	7/31/15	SCDHHS
	ARRA Reporting (quarterly)	4/5/10	4/28/16	SCDHHS
Legal/Policy		1/7/10	1/6/14	IGC
	Formation of Privacy and Policy Subcommittee	1/7/10	1/7/10	IGC
	Develop policies and procedures including enforcement and audits	1/7/10	1/6/14	IGC
	Develop Participation and Business Associate Agreements for SCHIEEx users	4/16/10	9/30/10	IGC
Technical Infrastructure		1/7/10	6/2/14	ORS
	Move SCHIEEx Operations to DSIT	5/3/10	7/23/10	ORS
	SCHIEEx Core Services: Specification and Design Phase	1/7/10	6/2/14	ORS
	Hardware, SAN, backup design	1/7/10	1/27/10	DSIT, ORS
	Network, VPN, Security Design	3/1/10	3/19/10	DSIT, ORS
	Environment design (Test, Train, Development, Production)	3/1/10	3/19/10	DSIT, ORS
	SCHIEEx Core Services: Migration Planning	3/1/10	3/19/10	DSIT, ORS
	Hot backup and testing plan	3/1/10	3/19/10	DSIT, ORS
	Data migration	3/1/10	3/19/10	DSIT, ORS
	Validation	3/1/10	3/19/10	DSIT, ORS
	DSIT Operations Staff Training	3/1/10	3/19/10	DSIT, ORS
	SCHIEEx Core Services: Procurement and Install	3/22/10	7/9/10	SCHIEEx

Task Category/Task Sub-Category/Task		Start Date	End Date	Stakeholders
	Hardware and systems software procurement	3/22/10	4/13/10	ORS, DSIT
	Deployment and installation	5/3/10	7/9/10	ORS, DSIT
	Systems Software and DBA Installation	5/3/10	7/9/10	ORS, DSI
	SAN Configuration	5/3/10	7/9/10	ORS, DSIT
	Network Access and Security	5/3/10	7/9/10	ORS, DSIT
	SCHIEX Core Services: Data Migration Validation	7/12/10	7/23/10	ORS, DSIT
	Hot Backup of primary (current production environment)	7/12/10	7/20/10	ORS, DSIT
	Log Shipping	7/12/10	7/23/10	ORS, DSIT
	Validation of Environment	7/12/10	7/23/10	ORS, DSIT
	SCHIEX Core Services: Cutover and Transition	7/26/10	7/26/10	DSIT, ORS
	User downtime Announcement	7/26/10	7/26/10	DSIT, ORS
	SCHIEX Core Services: Cutover	7/26/10	7/26/10	DSIT, ORS
	Network transition (DNS, IP changes)	7/26/10	7/26/10	DSIT, ORS
	Production validation	7/26/10	7/26/10	DSIT, ORS
	Complete SCHIEX move to DSIT	7/26/10	7/26/10	DSIT, ORS
	SCHIEX Core Services: Immunization Registry	1/7/10	6/2/14	ORS, SCDHEC
	Technical design	1/7/10	5/14/10	ORS, SCDHEC
	CDC HL7 based outbound Query/Response gateway support on current registry	3/1/10	5/14/10	ORS, SCDHEC
	Define business logic rules (patient match, immunization update, conflict checking)	1/7/10	3/24/10	ORS, SCDHEC
	Build/Configure Adapter	1/7/10	2/5/10	ORS
	Project Initiation/ Testing	5/17/10	5/28/10	ORS, SCDHEC
	Validate proposed SFTP data flows	5/17/10	5/21/10	ORS, SCDHEC
	Send and process test HL7 messages via email	5/24/10	5/28/10	ORS, SCDHEC
	SCDHEC CARES-IIS Driver Interface Development	6/1/10	7/9/10	ORS, SCDHEC
	Set up SCHIEX test environment	6/1/10	6/4/10	ORS, SCDHEC
	SCDHEC Internet available test environment set up	6/11/10	6/11/10	ORS, SCDHEC
	SFTP transaction configuration and testing	6/14/10	7/9/10	ORS, SCDHEC
	Sending immunization records	6/14/10	6/25/10	ORS, SCDHEC
	Query for immunization records	7/9/10	7/9/10	ORS, SCDHEC
	Adapter integration	6/30/10	7/23/10	ORS, SCDHEC
	Integration with State RLS	6/30/10	7/9/10	ORS, SCDHEC
	Configuration of message triggers	7/12/10	7/23/10	ORS, SCDHEC
	Sending immunization records	7/12/10	7/16/10	ORS, SCDHEC
	Query for immunization records	7/20/10	7/23/10	ORS, SCDHEC
	SCDHEC Internet available production environment set up	7/16/10	7/16/10	ORS, SCDHEC
	Configure and validate connectivity and authentication	7/23/10	7/23/10	ORS, SCDHEC
	Validation/ Test	7/26/10	6/2/14	ORS, SCDHEC

Task Category/Task Sub-Category/Task		Start Date	End Date	Stakeholders
	Data validation	7/26/10	5/30/14	ORS, SCDHEC
	Load testing	6/2/14	6/2/14	ORS, SCDHEC
	Production Go Live	8/10/10	8/10/10	ORS, SCDHEC
	Pilot /Clinical Validation	8/10/10	9/29/10	ORS, SCDHEC
	Upstate HIE (Greenville Hospital System, St Francis Health System)	8/10/10	9/29/10	ORS, SCDHEC
	Validate cycle	8/10/10	8/31/10	ORS, SCDHEC
	Publish specifications and test harness for State	8/10/10	8/31/10	ORS, SCDHEC
	Lab data exchange	1/7/10	4/19/10	ORS
	Resolve CLIA issues for data exchange and sharing	1/7/10	3/31/10	ORS
	Implement laboratory adapters	1/7/10	4/19/10	ORS
	Medication History Gateway	1/7/10	5/10/10	ORS
	HIEBUS 2010 RXHUB certification	1/7/10	1/7/10	ORS
	SCHIEx adapter implementation to SureScripts exchange	1/8/10	5/10/10	ORS
	Connect to NHIN	1/7/10	8/27/10	ORS
	Schedule NHIN trial implementation	1/7/10	8/27/10	ORS
	SCHIEx Core Services: SCHIEx Optional Modules supporting meaningful use	1/7/10	1/3/11	ORS
	ePrescribing	7/27/10	1/3/11	ORS
	Pilot testing ePrescribing with selected providers	7/27/10	1/3/11	ORS
	Enable PQRI reporting for production use	6/1/10	8/11/10	ORS
	Enable ASP EMR module for production use	1/7/10	3/31/10	ORS
	Enable Care Coordination for production use	6/1/10	8/11/10	ORS
<b>Business and Technical Operations</b>		1/7/10	10/31/12	ORS
	Formalize business operations including Business Continuity	8/30/10	2/11/11	ORS
	Update Standard Operating Procedures	3/16/10	10/31/12	ORS
<b>SCHIEx Staffing</b>		1/7/10	1/8/10	ORS
	Project staffing/ Key Leadership	1/7/10	1/8/10	ORS
<b>Reporting Requirements for HIE</b>		2/16/10	8/2/10	SCDHHS
	Review guidance on ONC reporting requirements	2/16/10	8/2/10	SCDHHS
	Develop/revise reporting tools per guidance	2/16/10	8/2/10	SCDHHS
<b>Signoffs</b>		4/30/10	5/31/10	SCDHHS
	Medicaid Director: strategic/operational plans	4/30/10	4/30/10	SCDHHS
	HIE Program evaluation (ongoing)	5/31/10	5/31/10	IGC

## SCHIEEx Financial Model

SCHIEEx will be funded by all participants who connect to the exchange. This includes EPS, EHs, private payers, state and public agencies, and other medical entities. The pilots and existing project will migrate to the new sustainability model. Where there are contractual arrangements in place for state and public agencies, a portion of the money exchanged will be allocated to pay the fees associated with connecting to the HIE.

The South Carolina Department of Commerce is expanding the Business Plan to include a definitive payment structure for other payers including state agencies, medical entities, and private payers. By expanding the participants in the HIE, the potential revenue stream increases and potentially the cost for connecting will decrease.

### Proposed Fee Schedule

The fee schedule proposed to support the operation of SCHIEEx is a tiered program that varies based on the size of facilities connecting to the exchange. This pricing schedule was developed to equitably distribute costs between hospitals, clinics, private practices and other medical facilities while also providing affordable subscription fees. The fee schedule is still under revision with the IGC as stakeholders work to offer SCHIEEx at the lowest cost to the provider while still funding the SCHIEEx operation after the grant funding period concludes. The fee schedule will be posted for public comment on SCHIEEx’s website once the IGC reaches an internal decision. The proposed fees were calculated based on the revenue required to cover the SCHIEEx administration costs, the total number of potential SCHIEEx users, and the expected SCHIEEx adoption rate or market penetration. There are two fee schedules; one pertaining to hospitals and another for all other medical facilities with EPs as defined in ARRA, including physician group practices, clinics, outpatient centers, dentist practices, RHCs, and FQHCs. The fee schedule for hospitals is based on the number of licensed beds at the facility whereas other medical facilities are charged based on the number of EPs employed. Eligible users would include physicians, mid-level providers including advanced practice registered nurses and physician assistants, and dentists.

Number of Beds	Subscription Fee
From 1 to 15 beds	\$0 plus \$157 per bed
From 16 to 25	\$2,500 plus \$151 per bed over 16
From 26 to 49 beds	\$4,000 plus \$144 per bed over 26
From 50 to 99 beds	\$7,500 plus \$137 per bed over 50
From 100 to 199 beds	\$14,400 plus \$130 per bed over 100
From 200 to 299 beds	\$27,400 plus \$124 per bed over 200
From 300 to 399 beds	\$39,800 plus \$117 per bed over 300
From 400 beds +	\$51,500 plus \$110 per bed over 400

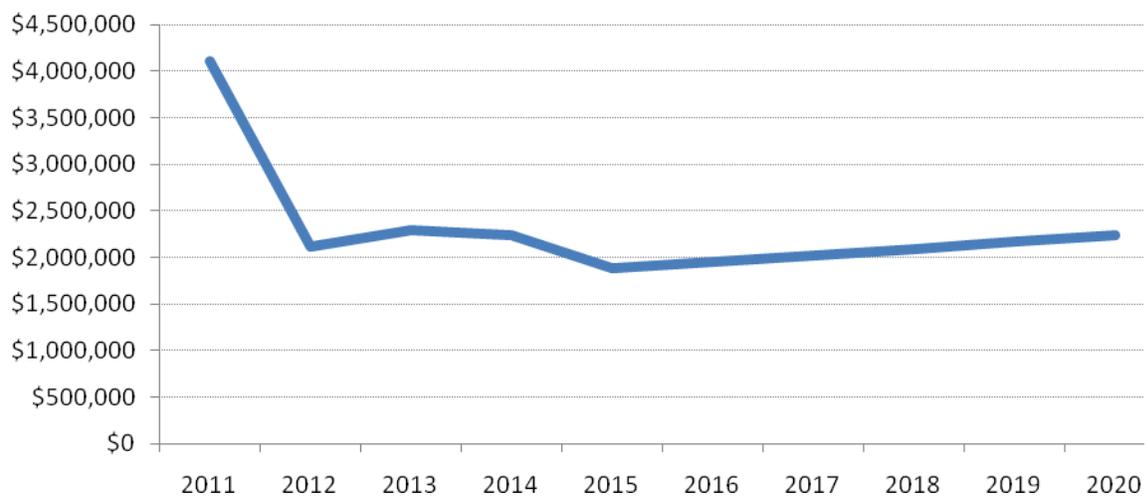
**SCHIEEx Annual Pricing for Hospitals**

To account for economies of scale and the expected decrease in cost to serve on a per bed basis, the marginal price increment for additional beds decreases as the hospital size increases, from an additional \$157 per bed for the smallest hospitals to \$110 per bed for the larger hospitals. Using the schedule above, a hypothetical hospital with 150 beds would pay a SCHIEEx connection fee of \$20,900 per year.

The recommended pricing structure for all other facilities, as defined above, is on a per user basis with a flat base fee for each facility. The recommended base fee is \$230 per year per facility plus \$230 per year for each EPs employed at the facility. For example, a physician practice group with three EPs would pay an annual SCHIEEx connection fee of \$920 per year. Based on a review of other commercially available ASP EMR module solutions, the proposed pricing for the ASP EMR module offering is \$1,200 per year per eligible user with an additional \$360 per year per EP if the ePrescribe option is used.

### SCHIEEx Administration and Technical Support Costs

The program costs associated with the implementation, technical support, customer support, administration and oversight of SCHIEEx vary over time. The initial costs, which are funded by the HIE Cooperative Agreement, are higher than the later years because the administrative and technical work for developing and implementing the exchange are costlier than the maintenance and support once in place. As shown in the figure below, total SCHIEEx administration costs are expected to fall from approximately \$4.1 million in 2011 to \$1.9 million in 2015. From 2015 onwards, it is assumed that costs will inflate at a rate of 3.5% annually.



**Expected Total SCHIEEx Program Costs, 2011-2020**

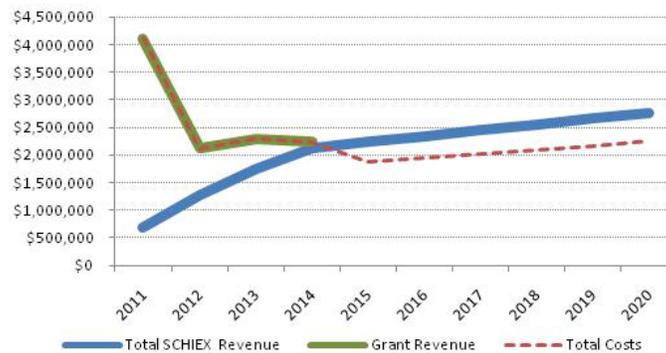
Because federal grant funds are expected to cover the SCHIE program costs from 2011 through 2014, demonstrating financial sustainability is most vital for years 2015 and beyond. The table below delineates the costs expected in 2014, which is the baseline year for program costs in succeeding years. These costs include the technical and support personnel at ORS, who will manage SCHIE, the contract with CareEvolution, costs associated with data hosting, compliance consultation, and staffing the Governance Committee.

<b>Personnel Costs</b>				
	<b>FTEs</b>	<b>Salary</b>	<b>Fringe</b>	<b>Total</b>
Program Manager	0.25	\$90,000	\$29,700	\$29,925
Executive Director	1.00	\$90,000	\$29,700	\$119,700
Program Coordinator	1.00	\$52,000	\$17,160	\$69,160
Senior Database Admin	1.00	\$70,000	\$23,100	\$93,100
IT Manager II	1.00	\$80,000	\$26,400	\$106,400
Grants Coordinator / Program Assistant	1.00	\$35,000	\$11,550	\$46,550
Administrative Coordinator II	1.00	\$45,000	\$14,850	\$59,850
<b>Personnel Total</b>	<b>6.25</b>	<b>\$462,000</b>	<b>\$152,460</b>	<b>\$524,685</b>
<b>Other Administrative Costs</b>				
	<b>FTEs</b>	<b>Cost / FTE</b>		<b>Total</b>
Tort Liability	6.25	\$64		\$400
Supplies + Postage	6.25	\$750		\$4,688
Software	6.25	\$2,300		\$14,375
Internal Operations	6.25	\$1,000		\$6,250
Telephones	6.25	\$350		\$2,188
Rent	6.25	\$3,185		\$19,906
<b>Technical / Contract Costs</b>				
				<b>Total</b>
Replacement Hardware				\$40,000
CareEvolution HIE Costs				\$1,128,161
Legal Consultation				\$15,000
HIPAA Consultation				\$12,500
DSIT Hosting				\$120,292
Networking / Bandwidth				\$1,000
			<b>Grand Total</b>	<b>\$1,889,444</b>

**SCHIE Program Annual Administration Cost Assumptions**

## Financial Scenario Analyses

Using these population sizes and adoption rate estimates, several scenarios have been prepared to demonstrate financial sustainability for SCHIEEx. With best estimate adoption among hospitals and other groups, the resulting SCHIEEx revenue of \$2,232,000 will cover the expected SCHIEEx operating costs of \$1,889,000 with a margin of 18%. The figure below illustrates expected SCHIEEx costs and revenue for the best estimate adoption rate scenario.



### Expected SCHIEEx Program Costs and Revenue (Best Estimate Adoption Case), 2011-2020

If more conservative adoption rates are applied to either the hospital population or the physician practice group and clinic populations, SCHIEEx will still maintain financial sustainability. In the case where physician group and clinic adoption rates are conservative and hospital adoption rates are left at the best estimate levels, SCHIEEx still operates with a 4% operating margin in 2020. If both the hospital and physician group adoption rates are at the lowest, conservative level, then operating costs will exceed SCHIEEx revenue. However, the revenue generated from SCHIEEx during the grant-sustained period will provide a buffer that will keep the program solvent beyond 2020. During this time, more information will be available to adjust prices if necessary. Based on the informal hospital CIO surveys and the environmental scan, the conservative adoption rate scenario for hospitals is highly unlikely.

If both the hospitals and physician groups adopt at the optimistic adoption rates, SCHIEEx will operate with a 90% margin in 2015. At this time, user fees could conceivably be reduced substantially, as the costs would be distributed among a much larger population.

## EHR Communication Plan

The overall communications goal of the SMHP is to raise awareness among Medicare/Medicaid providers of EHR incentive payments and the specific requirements associated with the incentive program. SCDHHS has already begun this effort, and plans continuous interaction with providers utilizing a variety of communication methods. To determine the relative success of these efforts,

SCDHHS will employ several measurements, including benchmarking off of projected EHR adoption rates outlined in the Business Plan, reviewing HIT awareness rates measured in the subsequent Environmental Scan planned for early 2011, and continually monitoring provider feedback.

The results of the 2009 Environmental Scan indicated that a relatively low percentage (<50%) of primary care physician practices reported awareness of the HITECH Act, meaningful use, or EHR incentive payments. The survey also indicated that those who were aware of incentive payments lacked specific knowledge about how to qualify. Furthermore, those who had not yet adopted EMR technology in their practices were ambivalent to the cost/benefits associated with the investment. For these reasons, SCDHHS chose to focus its initial communications strategy on informing physicians and staff of the background of the HITECH Act, the associated rules for qualifying for incentive payments, and the overall benefits of EHR adoption. This strategy, and corresponding messaging, can be modified depending on the results of the next Environmental Scan and future adoption rates. For example, a future high awareness rate and corresponding low adoption rate would likely indicate the need for a strategic shift.

Current and planned communication methods fall into two general categories: 1) written communication from SCDHHS to individual providers and provider groups; 2) face-to-face interaction among SCDHHS, its business partners, providers and other key stakeholders. SCDHHS, ORS, and HSSC have also aligned their efforts to brand the HIT initiatives in the state with distinct logos for the provider education campaign, SCHIEEx, and South Carolina's Regional Extension Center:



Listed below are a several specific examples of how these methods are currently operationalized.

### **Medicaid Bulletins**

Medicaid Bulletins will be used to communicate vital information pertaining to the EHR incentive payment program. Electronic Medicaid Bulletins are the primary mode for communicating important policy information to individual Medicaid providers. Archived bulletins are available at [www.scdhhs.gov](http://www.scdhhs.gov) for reference purposes. Providers can enroll online to receive Medicaid Bulletins pertaining to the EHR incentive program and meaningful use. E-Bulletin subscription is also part of the provider enrollment business process for prospective providers. More than 8,000 practices and health care entities currently subscribe to the Medicaid Bulletin listserv.

## **Provider Perspective**

SCDHHS is utilizing a special provider newsletter, *The Provider Perspective*, to highlight the generally known rules and conditions of the EHR incentive program. The newsletter is automatically sent via listserv to providers who subscribe to receive Medicaid Bulletins. The newsletters are also available on the SCDHHS website (<http://www.scdhhs.gov/dhhsnew/Whatsnew.asp/>). The inaugural article concerning HIT adoption was sent in March and contained a broad overview of ARRA and the HITECH Act. Subsequent editions will contain the following topics (target dates):

- The roles of the ONC and CMS (July 2010)
- Certified EHR technologies and why they are important (July 2010)
- Meaningful use definition, requirements, and stages (August 2010)
- EHR incentive programs eligibility (August 2010)
- Protecting privacy and security of health information (October 2010)
- HIT adoption workflow and understanding and overcoming barriers prior to implementation (November 2010)
- The importance of HIE and the role of SCHIEx (December 2010)

In order to facilitate two-way communication, SCDHHS solicits and responds provider comments through a dedicated email address ([hitsc@scdhhs.gov](mailto:hitsc@scdhhs.gov)), which is posted predominantly on the SCDHHS HIT website (<http://www.scdhhs.gov>) and is listed in *The Provider Perspective*. Questions and their corresponding answers will also be periodically posted on the SCDHHS HIT website. The newsletter will also list additional resources, such as websites from state and federal HIT-related organizations, for providers interested in learning more.

## **South Carolina Medicaid EHR Incentive Program Provider Policies and Procedures Manual**

The SCDHHS Bureau of Federal Contracts (in consultation with the Office of General Counsel and the HIT Division) will develop a detailed, web-based policy and procedures manual for providers based upon the final rule. Guidance for EPs and EOs will be separate and clearly identified. This guidance will detail information concerning the types of Medicaid providers eligible for the program, how to apply, and other program participation requirements. Information concerning audits, incentive payment recoupment, and provider appeals will also be included. The manual will be available on the SCDHHS HIT website (<http://www.scdhhs.gov>).

## **Provider Marketing Contract**

SCDHHS contracted with the Maxim Communications Group, Inc. to assist with the development of meaningful use educational materials and additional provider outreach strategies. To date, a series of

special brochures have been produced that focus on several aspects of the HIT initiative and the HITECH Act, including: Medicaid incentive payments, Medicare incentive payments and associated penalties for non-adoption, technology and EHR certification, and the Regional Extension Center (See appendix D). Importantly, the series adheres to consistent themes and design elements that are mirrored in other mediums, including *The Provider Perspective*, portable displays, educational PowerPoint presentations, and web content maintained by the South Carolina AHEC. Further information is available online at <http://www.palmettohit.net>.

### **Provider Education and Outreach Contract with AHEC**

SCDHHS has contracted with the South Carolina AHEC to provide introductory face-to-face education for providers regarding the EHR incentive program and other aspects of the statewide HIT initiative. The educational program offers basic information about EHRs and benefits of EHRs to providers and their patients, such as disease management and preventive care. Because AHEC maintains offices throughout South Carolina, the opportunity to engage providers directly is greatly enhanced and will serve to reinforce formal written communications. AHEC has already begun to utilize the educational materials produced by Maxim Communications Group to reach broad audiences, including individual providers, practice staff, and provider groups and associations (e.g. School Nurses Association, Academy of Family Practices, South Carolina Medical Association, Office of Rural Health, and the South Carolina Hospital Association). AHEC has scheduled regional meetings dedicated to sharing news about EHR incentives with providers.

- September 17, 2010 (Upstate)
- October 13, 2010 (Mid Carolina)
- November 5, 2010 (PeeDee)
- November 19, 2010 (Lowcountry)

In addition, AHEC is working to recruit physicians and practice staff who can serve as provider “champions.” These champions are tasked with engaging peers in discussions about the HIT initiative and encouraging EHR adoption. These provider-to-provider discussions hold perhaps the greatest potential in producing the desired buy-in for the project. The initial step involved the establishment of a nine-member Provider Advisory Board to offer feedback on early communication efforts. AHEC also developed a special educational supplement to *The Journal of the South Carolina Medical Association* that features in-depth articles concerning various aspects of EHR adoption.

### **Stakeholder Summits**

Since June 2009, SCDHHS and HSSC have hosted a series of nine HIT summits. The purpose of these summits is to generate broad stakeholder involvement in the statewide HIT initiative. These summits have focused on various aspects of the HIT initiative and feature updates on state and federal activities,

national guest speakers, and discussion panels. Attendees have included representatives from all major state health care associations, vendors, colleges and universities, consumer advocates, and other state agencies. The meetings provide an open forum to discuss challenges and opportunities from an array of perspectives. Specific topics addressed at the summits have included:

- Meaningful use criteria
- Privacy and security
- EHR standards and certification
- Engaging consumers
- Practice management and EHRs
- How to begin the adoption process

SCDHHS and HSSC plan to continue hosting these summits, with the tenth scheduled for November 2010.

### **CITIA- SC**

CITIA-SC is a free service to certain South Carolina healthcare providers which was made possible by the federal Regional Extension Center grant awarded to HSSC. CITIA-SC plays an important role in the overall communication strategy through its direct contact with EPs throughout the state as they adopt and expand health information technologies in their practices. Through its direct contact with providers, CITIA-SC can provide valuable feedback to SCDHHS regarding HIT-related messaging and potential for improvements. Among the services provided by CITIA-SC:

- Assist with analyzing the health IT needs of the practice, clinic or hospital
- Assist with identifying affordable EHR systems that meet the needs of the practice
- Provide onsite management support, workflow redesign, training and troubleshooting
- Offer insight into patient privacy and security issues
- Assist the practice in taking the steps needed to receive an incentive payment and become a meaningful user
- Provide support on generating quality reports from the EHR

## **Interaction with MMIS and MITA**

### **Medicaid Information Technology Architecture (MITA) State Self-Assessment (SS-A)**

The SCDHHS Medicaid Information Technology Architecture (MITA) state self-assessment (SS-A) report was submitted to CMS in November 2009. The results of the report are valuable as planning efforts are underway for the MMIS replacement project. A brief summary of the SS-A results follows.

**Business Capability Assessment:** SCDHHS has identified manual processes that can be improved through automation. Automated processes will, in some cases, be more effective and cost-efficient; in other cases, they will provide better services to providers, beneficiaries, or other stakeholders. SCDHHS has identified some agency-internal business processes that can be standardized and streamlined. A more efficient agency can better serve the Medicaid community. SCDHHS believes that better service produces better health outcomes.

**Infrastructure Assessment:** SCDHHS has identified system interfaces and software applications that should be pulled into the Medicaid Enterprise system in order to provide more security, better data access, and more interoperability among systems.

Some key priorities for the Medicaid Enterprise transformation are: real-time adjudication of claims; enhanced screening and credentialing of enrolling and enrolled providers; better, faster, more accurate communication with beneficiaries, providers, and other stakeholders; empowering beneficiaries by providing them more access to provider and health information; and laying the groundwork for a future all-health-services enterprise through participation with other state health agencies. The shared underlying goal of all these priorities is the improvement of health outcomes for South Carolinians.

### **ARRA and MITA Connection**

The SS-A report was completed at a critical time: as plans move forward with the MITA initiative, SCDHHS is also working to implement key HIT provisions of ARRA. These provisions are intended to promote health care quality and health information exchange through the use of certified EHR technology. They have significant consequences for the development of the Medicaid Enterprise:

- SCDHHS is the agency tasked with promoting, measuring and rewarding meaningful use of certified EHRs for the state of South Carolina. The future Medicaid Enterprise must facilitate the measuring, tracking and reporting of meaningful use and the distribution of incentive payments to meaningful users – and it must do so soon.
- Use of a statewide HIE will promote sharing of health care information and improvement of health outcomes throughout our state. The future Medicaid Enterprise must make optimal use of the data exchange available through SCHIE.

MITA and ARRA are thus highly interdependent. MITA emphasizes the role of technology in improving health outcomes, and ARRA lays out a few key routes for that transformation.

## **Medicaid Management Information System (MMIS) Replacement Project**

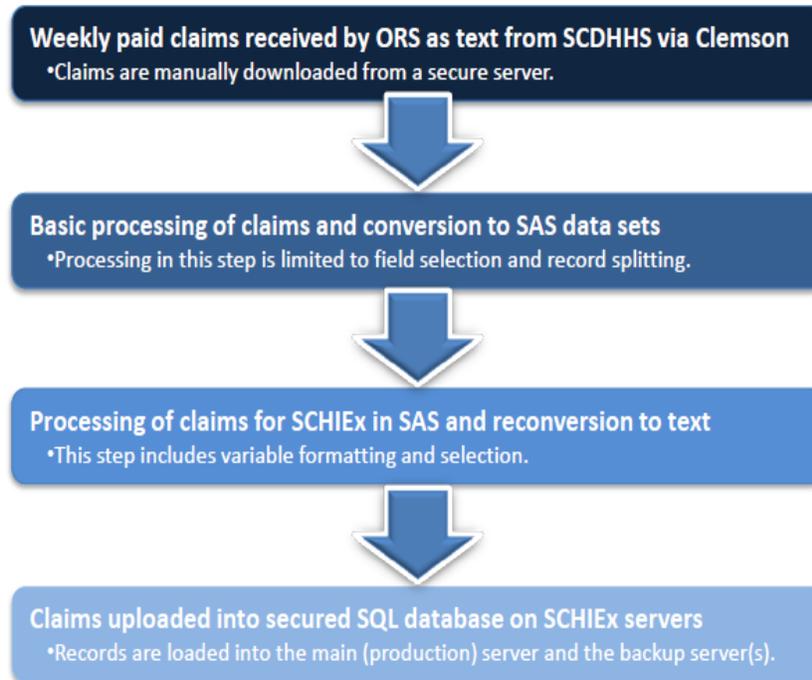
SCDHHS is in the planning stage of replacing the MMIS, which will align with the MITA initiative. As SCDHHS meets the benchmarks of the MITA maturity models, the exchange of claims data with SCHIEEx will migrate to a bi-directional real time exchange. As planning efforts continue for the redesign of the MMIS, SCDHHS and its stakeholders must consider how the functionality of the new MMIS and SCHIEEx will interact to achieve mutual goals such as expediting the prior authorization process and consumer access to healthcare data. At present, the current MMIS will undergo no changes for the South Carolina Medicaid EHR Incentive Program due to near-term plans for a replacement MMIS. The existing credit adjustment process will be used for making incentive payments; SCDHHS will add additional fund codes to track incentive payments. Future plans will be coordinated to ensure the new MMIS will continue to support the credit adjustment process for the South Carolina Medicaid EHR Incentive Program. SCDHHS anticipates that the new MMIS will reduce manual processes for the HIT Division such as verifying that providers meet eligibility requirements such as enrollment in Medicaid, patient volume, and hospital-based exclusions.

### **SCHIEEx Interface**

Medicaid claims data is sent via a weekly data feed from Clemson University to ORS. Data fields sent include:

- Claims identifiers
- Diagnosis codes and descriptions
- Admit/discharge/service dates (formatted MM/DD/YYYY)
- Prescription drug details (name with dosage, therapeutic class, refills, days supply, name and ID number of prescriber)
- Service details (procedure code and name, units)
- Patient admit/discharge status
- Patient ID and category
- Billing details (DRG, code modifier, fee-for-service vs. capitated indicator, payment date)
- Claim type
- Provider name, type, specialty, and ID numbers for both billing and rendering providers

Data sets flow through a Medicaid adapter into SCHIEEx. The steps for receiving, processing, and formatting the data are provided below (see following page). Claims data is processed and converted to SAS data sets.



## Stakeholders

The table below identifies key state agencies and other state organizations involved in HIT activities throughout the state.

Entity	HIT role in South Carolina
South Carolina Department of Health and Human Services (SCDHHS)	<ul style="list-style-type: none"> <li>➤ HIE Cooperative Agreement Program Grantee</li> <li>➤ South Carolina Medicaid EHR Incentive Program Administrator</li> <li>➤ HIT Summit host</li> <li>➤ e-Health Group Member</li> <li>➤ IGC Member</li> <li>➤ CHIPRA Quality Demonstration Grant recipient</li> </ul>

Entity	HIT role in South Carolina
State Budget and Control Board's Office of Research and Statistics (ORS)	<ul style="list-style-type: none"> <li>➤ State HIT Coordinator</li> <li>➤ HIE Cooperative Agreement Partner</li> <li>➤ State Data Warehouse Oversight</li> <li>➤ Operates SCHIEx</li> <li>➤ e-Health Group Member</li> <li>➤ IGC Member</li> <li>➤ CHIPRA Quality Demonstration Grant Partner</li> </ul>
South Carolina Department of Health and Environmental Control (SCDHEC)	<ul style="list-style-type: none"> <li>➤ HIE Cooperative Agreement Partner</li> <li>➤ Immunization and Disease Registries Owner</li> <li>➤ IGC Member</li> </ul>
Health Sciences South Carolina (HSSC)	<ul style="list-style-type: none"> <li>➤ HIT Summit Host</li> <li>➤ e-Health Group Member</li> <li>➤ Regional Centers Cooperative Agreement Recipient</li> <li>➤ IGC Member</li> </ul>
South Carolina Rural Health Research Center (SCRHRC)	<ul style="list-style-type: none"> <li>➤ Environmental scan contractor</li> <li>➤ Regional Centers Cooperative Agreement Partner</li> </ul>
Department of Mental Health (DMH)	<ul style="list-style-type: none"> <li>➤ The DMH Telepsychiatry Program Administrator</li> </ul>
South Carolina Department of Commerce	<ul style="list-style-type: none"> <li>➤ SCHIEx Business Sustainability Model Contractor</li> </ul>
Division of State Information Technology (DSIT)	<ul style="list-style-type: none"> <li>➤ SCHIEx host environment</li> </ul>
South Carolina Primary Care Association	<ul style="list-style-type: none"> <li>➤ Regional Centers Cooperative Agreement Partner</li> </ul>
South Carolina Office of Rural Health (SCORH)	<ul style="list-style-type: none"> <li>➤ Regional Centers Cooperative Agreement Partner</li> </ul>
Carolinas Center for Medical Excellence (CCME)	<ul style="list-style-type: none"> <li>➤ Regional Centers Cooperative Agreement Partner</li> </ul>
Florence-Darlington Technical College	<ul style="list-style-type: none"> <li>➤ Workforce Development Grant Recipient</li> </ul>
Carolina Health Centers	<ul style="list-style-type: none"> <li>➤ Quality Reporting Pilot Participant</li> <li>➤ LRHN member</li> </ul>
Thomson Reuters	<ul style="list-style-type: none"> <li>➤ Quality Reporting Pilot Participant</li> <li>➤ CHIPRA Quality Demonstration Grant Partner</li> </ul>

## **Section B: The “To-Be” Landscape**

South Carolina has taken significant steps in developing a statewide vision of its HIT future. Earlier in this document, details of the state HIT summit activities were described, including the cohesive HIT vision the e-Health group and summit attendees developed:

Our vision is for a healthier South Carolina where shared health information is a critical tool for improving the overall performance of the health care system. The health care community will work together to achieve clinical effectiveness through the use of information technology, delivering better overall value and improving quality of life for South Carolinians.

Following a similar thread, SCDHHS expects that the South Carolina Medicaid EHR Incentive Program will promote the use of certified EHRs and the exchange of clinical data and lead to improved healthcare quality while providing financial incentives to eligible Medicaid providers. In 2015, SCDHHS expects the HIT “to-be” environment to consist of: a functioning statewide HIE (SCHIEEx) that is well-integrated with existing state systems; an organized and well-supported process to administer the South Carolina Medicaid EHR Incentive Program; providers who are adopters and meaningful users of certified EHR technology; and a permanent governance committee with policies and procedures that allow for the movement and exchange of data in a secure, interoperable, and authorized manner. The redesigned MMIS will continue sharing Medicaid claims data with ORS for display in the Medicaid viewer.

As the provider community adopts certified EHR technology and connects to SCHIEEx, more providers will likely produce quality measurements and reports. With the increased availability of clinical data through SCHIEEx, SCDHHS will link claims data to its corresponding clinical data and produce quality reports for providers. With the analysis of quality reports, providers will be able to positively impact the quality of care they deliver to Medicaid beneficiaries. In turn, SCDHHS will use the quality measures to shape healthcare policies in a meaningful manner.

Ultimately, South Carolina expects these major themes to emerge from the HIT activities occurring throughout the state:

- Grant funding will provide the financial resources to establish the needed technical infrastructure in light of declining state resources.
- Focused coordination and collaboration will keep major HIT initiatives connected including the MMIS replacement project, HIE grant, Regional Extension Center grant, the South Carolina Medicaid EHR Incentive Program, and the CHIPRA Quality Demonstration grant. The synergy created will facilitate certified EHR technology adoption and ensure budget resources are leveraged effectively.

- Baseline EHR adoption rates look promising, and Medicaid and Medicare incentives will facilitate additional interest in certified EHR adoption. SCDHHS anticipates the adoption rates to increase each year over time.
- SCDHHS believes a closed loop system reduce the administrative burden for providers, integrate claims and encounter data, improve outcomes, and provide grounds to update reimbursement methodologies.

SCDHHS recognizes that there will be changes with technology and meaningful use criteria as well as insertions of new technology as the nation's HIT landscape changes and healthcare professionals become more sophisticated users of HIT and certified EHR technology. South Carolina will accommodate these changes and make adjustments in HIT operations, particularly SCHIEEx, as necessary.

## **Grant Activities**

### **HIE Cooperative Agreement Program**

The HIE Cooperative Agreement Program provides funding for South Carolina to scale SCHIEEx for statewide use. SCHIEEx will provide a means by which providers can transmit clinical data to SCDHHS in the form of quality reports that demonstrate meaningful use. Grant funding will also support the development needed to connect the state's disease and immunization registries to SCHIEEx.

This grant also provides funding for an appropriate governance structure to be established to oversee SCHIEEx operations along with the necessary legal agreements for the data exchange. Currently, the IGC is operational and maturing in structure and operations. SCDHHS will maintain a steady leadership presence with this grant.

### **Health Information Technology Extension Program: Regional Centers Cooperative Agreement Program**

The Regional Centers Cooperative Agreement Program provides funding for South Carolina to assist providers with the implementation of certified EHR technology and the pursuit of meaningful use. This grant provides the structure for providers to seek assistance in assessing their HIT needs and determining the solution that best meets the needs of their practices.

At the close of June 2010, 264 practices have applied to receive CITIA services, and 100 practices, or nearly 200 providers, have been approved to receive CITIA services. SCDHHS anticipates that the majority of these providers will be eligible for the South Carolina Medicaid EHR Incentive Program. However, the actual number of providers eligible for the South Carolina Medicaid EHR Incentive Program will be confirmed once providers register for the program and meet eligibility criteria.

### **CHIPRA Quality Demonstration Project**

The CHIPRA Quality Demonstration Project provides funding for SCDHHS to implement a demonstration project that will improve the quality of children's healthcare. SCDHHS and its grant partners propose to build a provider friendly continuous closed loop quality improvement structure. The CHIPRA Quality Demonstration Project will leverage resources from the HIE Cooperative Agreement Program and the Regional Centers Cooperative Agreement Program for the 18 participating pediatric practices. These practices will be able to share useful knowledge and lessons learned with the provider community concerning certified EHR use in the pediatric practice setting and collecting as well as reporting on quality measures.

SCDHHS has recruited a diverse group of practices that are spread across a continuum of EHR use and adoption, ranging from fully functional EHR users to practices that have not considered any HIT adoption. The practices without any near term plans for HIT adoption will be referred to the Regional Extension Center for assistance. They will be able to share their experiences of working with the Regional Extension Center with other providers that require HIT technical assistance.

The closed loop quality improvement structure will also serve, on a small scale, as a model for the state when SCDHHS begins accepting quality measures and reporting electronically in 2012. The structure leverages the SCHIEx connection and the SCDHHS DSS data warehouse and returns quality reports to provider EHRs via SCHIEx.

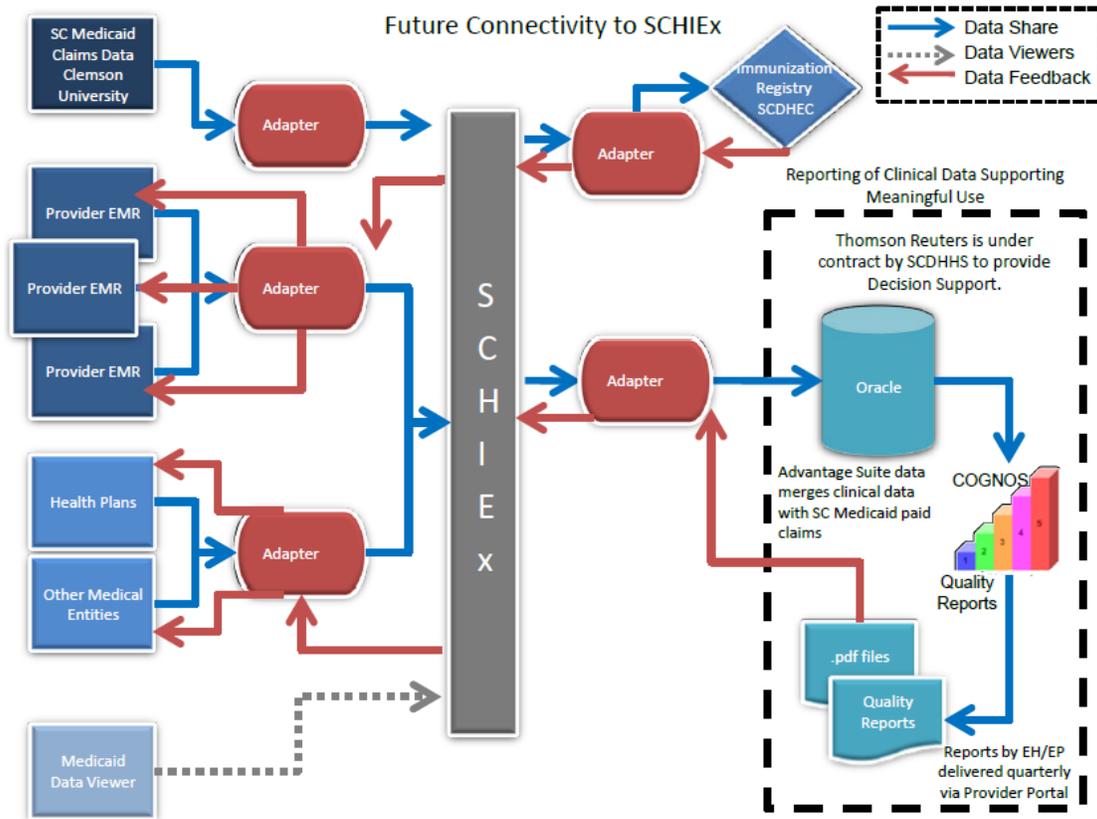
### **Pediatric Medicaid Population Impact**

The HIE Cooperative Agreement, CHIPRA Quality Demonstration grant, and the South Carolina Medicaid EHR Incentive Program will address the impact of HIT, the adoption of certified EHR technology, and the pursuit of meaningful use on the pediatric Medicaid population. The HIE Cooperative Agreement will increase access of claims and other electronic data including immunizations to inform providers' care of patients. The CHIPRA Quality Demonstration Grant will provide lessons learned and experiences from implementing and using certified EHR technology to improve pediatric care. The South Carolina Medicaid EHR Incentive Program will reward providers for adopting certified EHR technology and achieving meaningful use. As these programs are administered by SCDHHS, the agency will be able to closely monitor their impact on the pediatric Medicaid population.

The Medicaid EHR (formerly known as EPHR) will also undergo modifications including the addition of clinical decision support components and messaging capabilities.

## Clinical Data Repository

With the lessons learned from the quality reporting pilot, efforts are now focused on how to integrate structured data into the claims repository in order to build a clinical data repository. The diagram below lays out how SCDHHS envisions the future connectivity to SCHIE X that will also provider EMRs to directly pass data via SCHIE X to the Thomson Reuters Advantage Suite.



## Provider EHR Adoption

### Adoption Rates

In developing the sustainability model for SCHIE X, the South Carolina Department of Commerce also determined the estimated EHR and ASP EMR module adoption rates of providers. To estimate the adoption rate of providers, several sources of data were used including the environmental scan conducted by the SCRHC; the results of a survey conducted by the American Hospital Association; and informal phone interviews with the Chief Information Officers of the largest hospitals in the state, conducted by SCDHHS staff.

Before estimating the number of SCHIE users, the total market potential was determined. There are 9,379 physicians actively working in the state<sup>1</sup>. Approximately 2,200 of these are primarily employed at hospitals and the remainder at non-hospital locations. There are 2,235 nurse practitioners working in the state with approximately 70% employed at hospitals and 30% at other locations.<sup>2</sup> There are approximately 2,744 dentists working in South Carolina.<sup>3</sup> Because the expected adoption rates vary based on hospital and physician group or clinic size, the population of eligible users was divided using ratios calculated from the combined Medicaid provider files and licensure files.

A similar distribution was created for advanced practice registered nurses and dentists. Using the data from the environmental scan conducted in January of 2010, several scenarios of SCHIE adoption were developed to provide a best estimate case and upper and lower bounds on SCHIE adoption and consequent SCHIE revenue. The best estimate adoption rate estimate is based on the portion of survey respondents indicating they will pursue ARRA incentive funds. The conservative (lower bound) case is the portion of respondents indicating they will pursue incentive funds and already have an EMR system in place. The optimistic (upper bound) case is based on the portion either definitely planning to pursue or uncertain about pursuing incentive funds. The table below provides the best estimate, conservative (lower bound), and optimistic (upper bound) expected SCHIE adoption rates. These adoption rates are assumed to be reached in 2014.

	Small Hospitals (< 50 Beds)	Medium Hospitals (51 - 300 Beds)	Large Hospitals (300+ Beds)	Small Practice Groups / Clinics (<10 Eligible Users)	Large Practice Groups / Clinics (>10 Eligible Users)
Best Estimate Adoption Rate	67%	44%	50%	23%	55%
Conservative Adoption Rate	44%	22%	38%	12%	44%
Optimistic Adoption Rate	78%	66%	63%	58%	84%

Because there is limited data available to estimate dentist adoption rate, a very conservative approach was used to model revenue from this user group. The best estimate adoption rate for dentists was assumed to be 5% by 2014, conservative case was 0% and optimistic was 20%. Likewise, conservative estimates were used for ASP EMR module adoption. The best estimate adoption rate for the ASP EMR module solution is 10% of the small practice group population that is planning to pursue an incentive but not yet purchased an EMR solution. Of the entire small group population, this ratio is 3.6% for the

<sup>1</sup> SC Medical Board Certifications data, 2009

<sup>2</sup> SC Licensure File, via SC Office of Research and Statistics, March 2010

<sup>3</sup> American Dental Association, via Kaiser Family Health Foundation, 2008

best estimate case. The conservative case estimate is 0% adoption and the optimistic is 7.2% of the small practice group population.

SCDHHS plans to conduct a second detailed environmental scan in early 2011 to update anticipated adoption rates.

### **Encouraging Provider Adoption**

SCDHHS has established marketing and provider education contracts to encourage provider adoption of certified EHR technology. The provider education contract has launched an education campaign with promotional materials and participates in speaking engagements to provider associations and other professional organizations. Further, SCDHHS produces provider newsletters and bulletins to inform providers about the upcoming South Carolina Medicaid EHR Incentive Program.

SCDHHS will monitor adoption rates and adjust its communication strategy accordingly. Yearly estimates are broken down for HIT and certified EHR adoption in Section E of this document. In the mean time, SCDHHS will continue outreach efforts to providers, hospitals, professional associations, and health plans. SCDHHS will monitor adoption rates and adjust outreach efforts accordingly.

SCDHHS also relies on established relationships with provider organizations that are already using EHR technology and participating in a SCHIEx pilot project such as the LRHN to promote the use of EHR technology. The Carolina Health Centers, a member of the LRHN, is also participating in a pilot project with CareEvolution and Thomson Reuters to begin linking claims and clinical data to produce quality reports via the SCHIEx connection. Pilot projects like these serve as demonstrations to the larger provider community of how HIE and certified EHR technology can be applied in the practice setting.

The Regional Extension Center will serve as central point of contact for their target population requiring technical assistance for adoption and meaningful use of certified EHR technology. SCDHHS and HSSC have been at the forefront of HIT activities within the state and continue to work closely as they begin to implement their grants. For providers outside of CITIA's target population, SCDHHS is using a variety of methods to encourage adoption:

- **HIT website and Frequently Asked Questions:** SCDHHS maintains a website that lists many resources for providers regarding the incentive programs and a list of frequently asked questions.
- **HIT Summits:** The HIT summits are open to the public, and many providers have been engaged in the summit process since its inception. An upcoming HIT summit is planned that will focus strictly on the South Carolina Medicaid EHR Incentive Program. Past summits' resources and presentations are available on the HIT website.

- **Provider Bulletins:** SCDHHS relies on provider bulletins to communicate critical information to the provider community at large. A recent bulletin was distributed that contained information on CITIA. Future bulletins and provider newsletters will include additional information on the South Carolina Medicaid EHR Incentive Program.
- **AHEC Regional Meetings:** Part of the communication strategy includes regional meetings that providers can attend to learn valuable information about HIT, certified EHR technology, meaningful use, and the incentive programs.

## **Interaction with MMIS and MITA**

### **MMIS Replacement Project**

A new MMIS will be implemented and ready for use in 2015. The new system will modernize many agency processes reducing the number of processes dependent on manual efforts and paper-based methods. The new system will feature SOA. By using SOA, SCDHHS should eliminate the need for the weekly data feed to ORS that populates the Medicaid viewer in SCHIEx. The data will always be available to ORS, as needed. The Medicaid EHR viewer will also be available to all Medicaid providers.

### **Clinical Data Repository**

Plans for a clinical data repository that will house data on all Medicaid beneficiaries are under development. Initial work to develop this repository is included as part of the CHIPRA Quality Demonstration Project. However, additional resources will be required to scale out the repository to house data on the full Medicaid population.

### **Coordination with the South Carolina Medicaid EHR Incentive Program**

The new MMIS will continue to support the credit adjustment process for the South Carolina Medicaid EHR Incentive Program. Though requirements for the new MMIS are not finalized as of yet, SCDHHS anticipates that the new MMIS will reduce manual processes for the HIT Division such as verifying that providers meet eligibility requirements such as enrollment in Medicaid, patient-volume, and hospital-based exclusions.

## Section C: The HIT Roadmap

### Major Activities and Milestones

As South Carolina already has a functioning HIE and demonstrated processes for collaboration, consensus, and decision making, the HIT strategic roadmap for South Carolina consists of filling in the gaps and planning for the future through the activities outlined below.

Date	Activity/Milestone	Related Initiative
<b>2010</b>		
1/2010	Completed detailed environmental scan	South Carolina Medicaid EHR Incentive Program
2/22/10	SCDHHS received CHIPRA Quality Demonstration Grant award	CHIPRA Quality Demonstration Grant
3/15/10	SCDHHS received HIE Cooperative Agreement award	HIE Cooperative Agreement
4/20/10	SCDHHS submitted final drafts of the strategic and operational plans to the ONC	HIE Cooperative Agreement
4/2010	AHEC provider educational campaign kick-off	South Carolina Medicaid EHR Incentive Program
5/2010	ORS and SCDHEC initiate work for the SCHIEx and immunization registry connection	HIE Cooperative Agreement
5/2010-7/2010	Recruit pediatric practices	CHIPRA Quality Demonstration Grant
5/17/10-5/28/10	Project Initiation: Validate proposed secure file transfer program (SFTP) data flows	HIE Cooperative Agreement
5/24/10-5/28/10	Project Initiation: Send and process test HL7 messages via email	HIE Cooperative Agreement
6/2010-8/2010	SCDHHS conducts search and hires HIT Division Director	Medicaid EHR Incentive Program
6/1/10-7/9/10	ORS and SCDHEC develop immunization registry interface <ul style="list-style-type: none"> <li>• Set up SCHIEx test environment 6/1/10-6/4/10</li> <li>• SCDHEC Internet-available test environment set up 6/11/10-6/11/10</li> <li>• SFTP transaction configuration and testing</li> </ul>	HIE Cooperative Agreement

Date	Activity/Milestone	Related Initiative
	<p>6/14/10-7/9/10</p> <ul style="list-style-type: none"> <li>• Sending immunization records 6/14/10-6/25/10</li> <li>• Query for immunization records 6/28/10-7/9/10</li> </ul>	
6/30/10-7/31/10	<p>Adapter Integration</p> <ul style="list-style-type: none"> <li>• Integration with State RLS 6/30/10-7/9/10</li> <li>• Configuration of message triggers 7/12/10-7/23/10</li> <li>• Sending immunization records 7/12/10-7/16/10</li> <li>• Query for immunization records 7/19/10-7/23/10</li> <li>• SCDHEC Internet-available production environment set up 7/16/10-7/16/10</li> <li>• Configure and validation connectivity + authentication 7/19/10-7/31/10</li> </ul>	HIE Cooperative Agreement
7/2010	<p>Release Provider Perspective newsletters on:</p> <ul style="list-style-type: none"> <li>• The roles of the ONC and CMS</li> <li>• Certified EHR technologies and why they are important</li> </ul>	South Carolina Medicaid EHR Incentive Program
8/1/10-11/9/10	ORS and SCDHEC conduct testing and validation of SCHIEx and immunization registry interface	HIE Cooperative Agreement
8/2010	Submit SMHP to CMS.	South Carolina Medicaid EHR Incentive Program
8/2010	<p>Release Provider Perspective newsletter on</p> <ul style="list-style-type: none"> <li>• Meaningful use definition, requirements. stages</li> <li>• EHR incentive programs eligibility</li> </ul>	South Carolina Medicaid EHR Incentive Program
8/18/10	SCDHHS and HSSC host HIT Summit 9	Supports all HIE initiatives
9/17/10	AHEC educational talk for the upstate region	South Carolina Medicaid EHR Incentive Program
10/12/10	Return completed CMS Data Use Agreement and Security Point of Entry Form for Group 1 States NLR testing.	South Carolina Medicaid EHR Incentive Program
10/2010	Release Provider Perspective newsletter on protecting privacy and security of health information	South Carolina Medicaid EHR Incentive Program
10/13/10	AHEC educational talk for the mid Carolina region	South Carolina Medicaid EHR

Date	Activity/Milestone	Related Initiative
		Incentive Program
10/29/10	Complete Group 1 States Connectivity Testing with CMS	South Carolina Medicaid EHR Incentive Program
11/2010	Release Provider Perspective newsletter on HIT adoption workflow and understanding and overcoming barriers prior to implementation	South Carolina Medicaid EHR Incentive Program
11/5/10	AHEC educational talk for the PeeDee region	South Carolina Medicaid EHR Incentive Program
11/9/10	AHEC educational talk for the Lowcountry region	South Carolina Medicaid EHR Incentive Program
11/10/10	Go live date for SCHIEx and immunization bi-directional connection	HIE Cooperative Agreement
11/18/10	Summit 10 to be hosted	Applies to all HIT initiatives
11/23/10	Submit operational plan and begin Implementation Phase	CHIPRA Quality Demonstration Grant
12/2010	Release Provider Perspective newsletter on the importance of HIE and the role of SCHIEx	South Carolina Medicaid EHR Incentive Program
12/1/10	Finalize State Level Repository (SLR) Design and Development	South Carolina Medicaid EHR Incentive Program
12/15/10	Complete SLR Functional Testing	South Carolina Medicaid EHR Incentive Program
<b>2011</b>		
1/3/11	Public SLR Website “go live” date	South Carolina Medicaid EHR Incentive Program
1/5/11	Begin making payments to EPs and EHs	South Carolina Medicaid EHR Incentive Program
3/1/11-5/31/11	Conduct second detailed environmental scan	South Carolina Medicaid EHR Incentive Program
TBD	ORS expects to complete NHIN connection technical work	HIE Cooperative Agreement
TBD	Annual review of HIE strategic and operational plans	HIE Cooperative Agreement

Date	Activity/Milestone	Related Initiative
TBD	Annual review of SMHP	South Carolina Medicaid EHR Incentive Program
<b>2012</b>		
TBD	Annual review of HIE strategic and operational plans	HIE Cooperative Agreement
TBD	Annual review of SMHP	South Carolina Medicaid EHR Incentive Program
<b>2013</b>		
TBD	Annual review of HIE strategic and operational plans	HIE Cooperative Agreement
TBD	Annual review of SMHP	South Carolina Medicaid EHR Incentive Program
<b>2014</b>		
TBD	Annual review of SMHP	South Carolina Medicaid EHR Incentive Program
3/14/14	Grant conclusion	HIE Cooperative Agreement
<b>2015</b>		
TBD	Annual review of SMHP	South Carolina Medicaid EHR Incentive Program
2/21/15	Grant conclusion	CHIPRA Quality Demonstration Grant

## Provider Adoption

The baseline EMR adoption rates were supplied by the detailed environmental scan conducted at the close of 2009. The expected growth in adoption rates is based on the percentages of providers who have purchased EHR systems but not begun implementation and those providers who have begun actively planning to purchase EHR systems. The South Carolina Hospital Association anticipates that at least 10 hospitals will be ready to apply in 2010 for the incentive program and expect another 15-20 for 2011. A follow-up scan is planned for the close of 2010, which will assess the change in HIT adoption rates, especially to certified EHR technology, and providers' interest and understanding in HIT. Based on the results, the estimated adoption rates will be adjusted as necessary. SCDHHS will project funding needs for the CMS 37 based on these adoption rates. Professional organizations will also supplement SCDHHS

data with their readiness and predictions. Over time, SCDHHS will identify the adoption rates and improve forecasting its funding needs.

Provider Type	2010	2011	2012	2013	2014	2015
Practices (<10 providers)	46%	48%	53%	56%	58%	64%
Practices (>10 providers)	46%	54%	74%	82%	84%	90%
Hospitals (<50 beds) (23 total)	30%	43%	67%	76%	78%	88%
Hospitals (51-300 beds) (45 total)	30%	40%	57%	64%	66%	76%
Hospitals (301-500 beds) (8 total)	30%	39%	55%	61%	63%	73%

## Technology

Technology Component	2010	2011	2012	2013	2014	2015
State Level Repository (SLR)	Develop SLR	Connect SLR to NLR	Use NLR to support EHR Incentive Program			
MMIS	Legacy System					New MMIS
Clinical data repository in DSS	-Attestation -Leveraging CHIPRA grant	Build the EHR clinical data repository to collect clinical quality measures				-Claims and clinical data linked -Quality measures direct from EHR to DSS

Technology Component	2010	2011	2012	2013	2014	2015
HIE	-EHR Viewer access -Medicaid Claims Data	-Leverage CHIPRA grant for feedback -Add clinical messaging to facilitate outcomes				-EHR Viewer with clinical messaging available for use -Permanent legislation: any record, any time
ePrescribing	Access to eligibility and medication Rx hub through SureScripts					
Healthcare Reform	To be Determined					

## Audit and Oversight Activities

### Oversight Benchmarks

SCDHHS expects to streamline its processes for the South Carolina Medicaid EHR Incentive Program as more providers register for the program. Therefore, SCDHHS intends to review and adjust its program and SMHP, at minimum, annually. SCDHHS will also engage other stakeholders as necessary including CITIA, other state agencies, hospital associations, and other professional provider organizations to ensure that the program appropriately addresses stakeholder needs as much as possible.

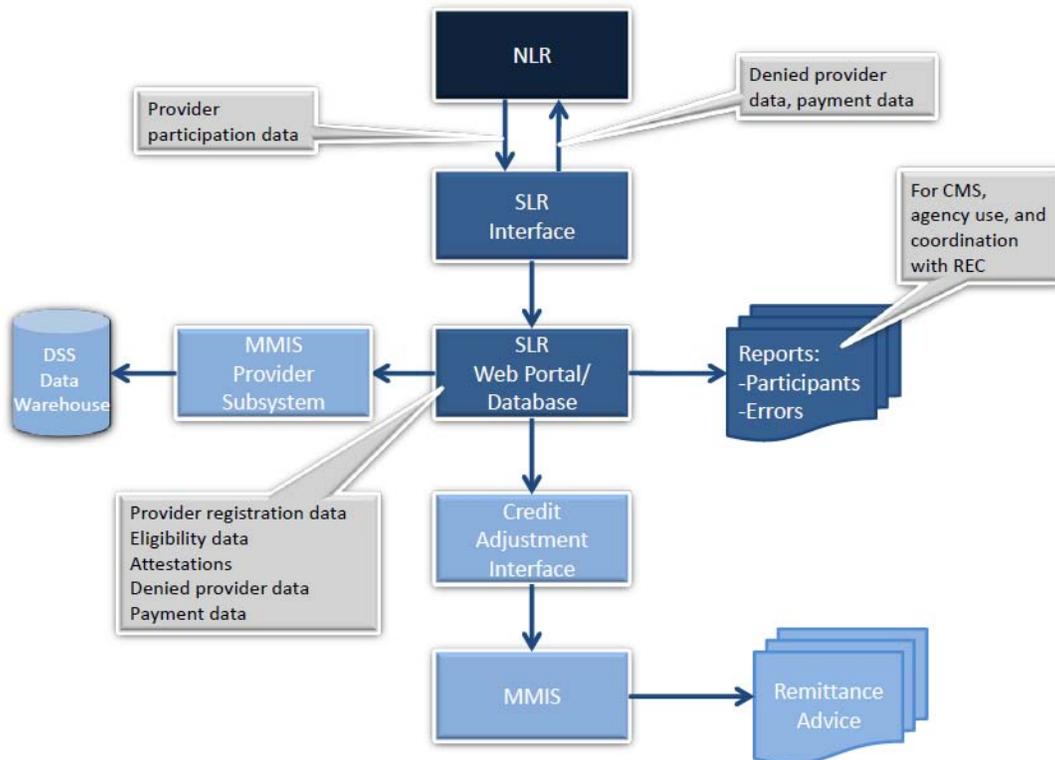
### Audit Benchmarks

The Division of Audits will schedule a fixed number of audits annually, with priority given to audits of providers that meet certain criteria as described in Section E of this document. If no providers meet these criteria, then the number of random audits will be increased. It is difficult to determine the exact number of audits to be conducted since SCDHHS does not know how many providers will apply and be eligible for the EHR Incentive Program. However, the annual goal is to have audit coverage of each type of EP and one or two major hospitals. Further details on SCDHHS' audit strategy and benchmarks are in Section E.

## Section D: Activities Necessary to Administer and Oversee the EHR Incentive Payment Program

In preparation for administering the South Carolina Medicaid EHR incentive program, SCDHHS has developed a framework for who will administer the payments, the tools and procedures needed, how providers will enroll and participate in the program, and the basic financial processes needed to oversee the program.

SCDHHS, the South Carolina Medicaid agency, will be fully responsible for the South Carolina Medicaid EHR Incentive Program and for making payments to EPs. SCDHHS will use a combination of existing technology and tools under development to effectively manage and monitor the program including the MMIS, DSS/SURS, the National Level Repository (NLR), and the State Level Repository (SLR). In order to pay out incentives properly, SCDHHS will forecast its cash needs, ensure providers are enrolled and meet incentive program conditions, calculate hospital payments, process and pay incentives as credit adjustments through the MMIS, report all expenditures, and monitor/audit the program to combat fraud and abuse. The diagram below is a high level depiction of what SCDHHS envisions is needed to administer and manage the EHR Incentive Program.



## Program Administration

### Assumptions and Dependencies

In order to effectively operate the South Carolina Medicaid EHR Incentive Program, the following assumptions and dependencies will drive the program's launch, administration, and oversight:

- SCDHHS is proceeding with its intention to launch the South Carolina Medicaid EHR Incentive Program in January 2011. In order to meet this schedule, SCDHHS expects the CMS NLR Tier 1 testing will continue on its projected schedule to begin testing in October 2010. SCDHHS is prepared to meet the CMS NLR Tier 1 testing schedule. Similarly, SCDHHS expects that the NLR website will be available to providers in January 2011 for registration purposes for the Medicaid EHR Incentive Program. The NLR is the "front door" for all providers, whether they participate in the Medicare or Medicaid EHR Incentive Program, and SCDHHS is dependent on the NLR interface to share provider registration data as well as data sharing for the duration of the program.
- SCDHHS expects that SCHIEx will be available as an option for providers to connect their certified EHR technology to. SCHIEx is currently used in several pilot projects and is being scaled out for statewide use under the HIE Cooperative Agreement. As of October 2010, SCHIEx has been moved to its statewide hosting environment (DSIT). Over the course of 6 weeks, SCHIEx will be connected to the network followed by software installation, data load, and beta testing. Several SCHIEx documents have been developed (Policies and Procedures, the Business Associate Agreement, the Participation Agreement, and the Policy Manual Definitions) and are posted on the SCDHHS HIT website (<http://www.scdhhs.gov/hit>) and the SCHIEx website (<http://www.schiex.org>) for public comment before these documents are approved as final. The SCHIEx website also includes the Interoperability Services Guide, which details how providers will connect to SCHIEx. SCDHHS and ORS frequently communicate on the status of SCHIEx, and SCDHHS and ORS agree that SCHIEx will be a viable option for providers to connect to for the EHR Incentive Program.
- SCDHHS expects that the connection between SCHIEx and the SCDHEC Immunization Registry will be available to providers to report immunization data. SCDHHS and DHEC met and agreed to require meaningful use measure on immunization reporting as a meaningful use core requirement for the South Carolina Medicaid EHR Incentive Program (Further information on this decision is available later in this section under State-Specific Meaningful Use Criteria). This Stage 1 measure requires EPs and EHs to do the following:

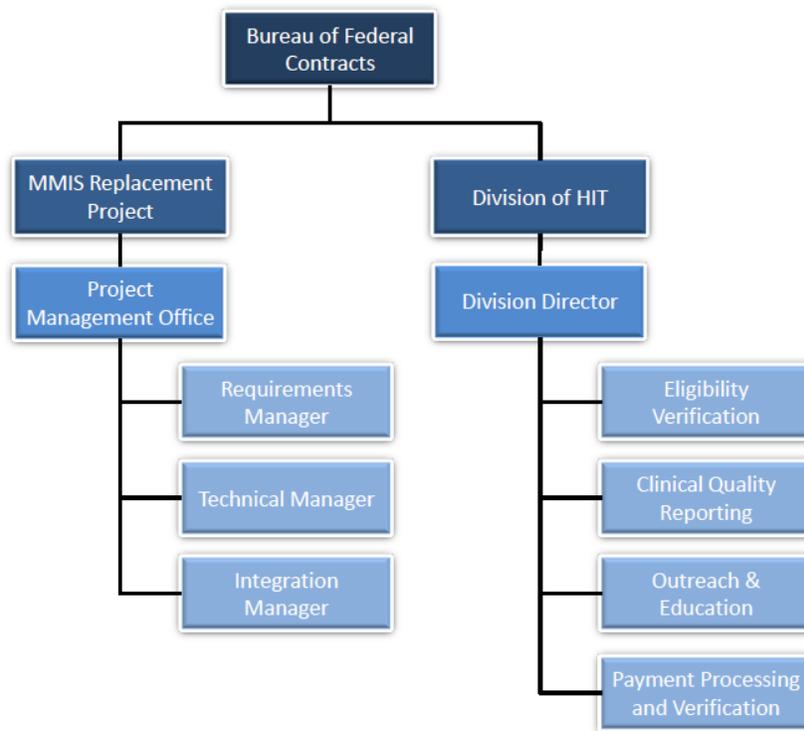
Performed at least one test of certified EHR technology's capacity to submit electronic data to immunization registries and follow up submission if the test is successful (unless none of

the immunization registries to which the EP, EH, or CAH submits such information have the capacity to receive information electronically)

ORS and DHEC have completed the test phase and are recruiting beta testers. This testing will be combined with the SCHIEEx beta testing and will follow a similar schedule for completion. SCDHHS, ORS, and SCDHEC agree that the linkage between SCHIEEx and the immunization registry will be a suitable methodology for providers to share immunization data and meet the meaningful use requirement.

**Staffing Support: Division of Health Information Technology**

Staff for the MMIS replacement project, the HIE Cooperative Agreement, and the South Carolina Medicaid EHR Incentive Program will be co-located in the Bureau of Federal Contracts, as shown below. As planning and development efforts continue, it is essential that staff from these initiatives collaborate to effectively share resources and design solutions that address the needs of each project. SCDHHS will establish milestones for collaboration between the two project offices.

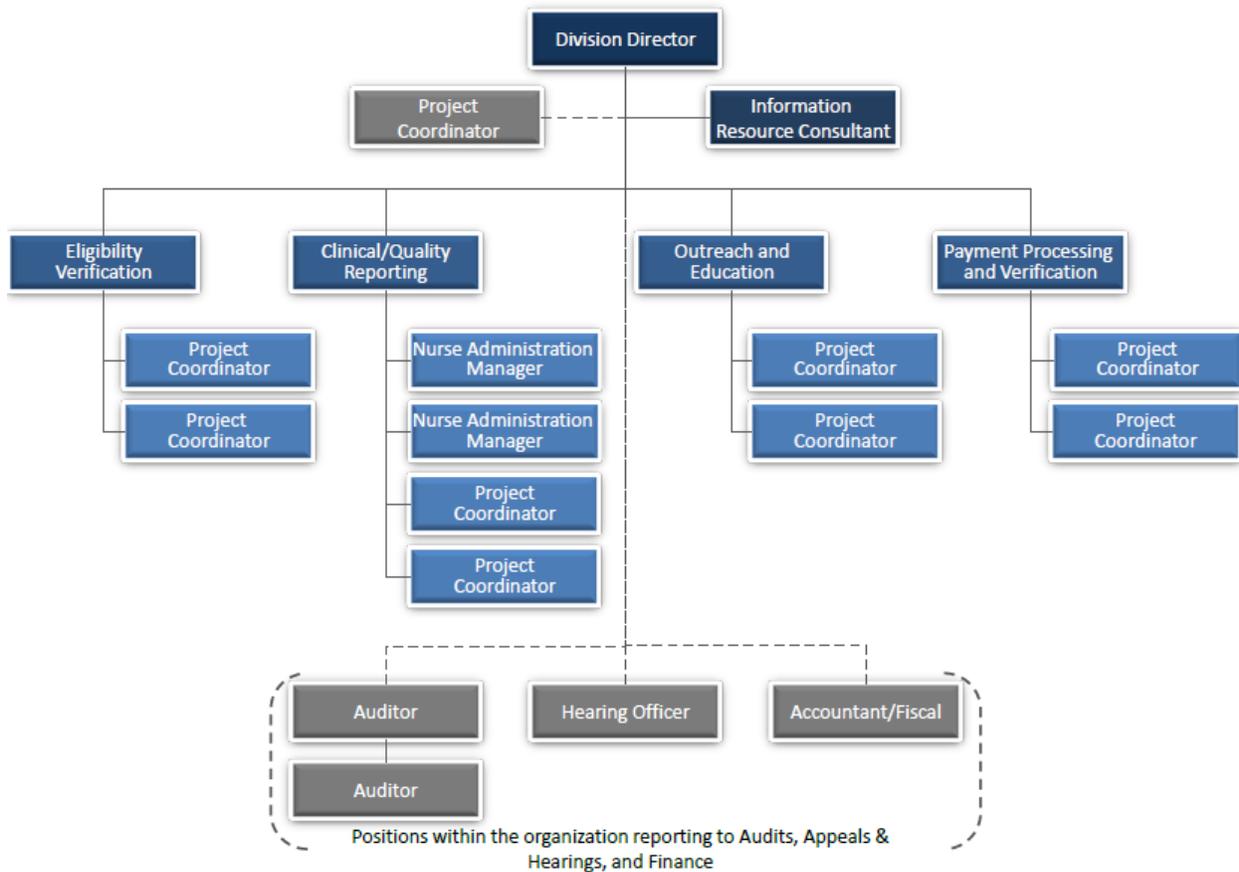


The core structure of the Division of HIT has been established with the intent that this organizational unit will evolve incrementally as functional needs become more apparent and as the program evolves. SCDHHS intends to leverage current contracts to procure clinical expertise in the area of quality reporting.

The Division of HIT will be directly responsible for the South Carolina Medicaid EHR Incentive Program. The Division will report to the Bureau of Federal Contracts under the General Counsel. Functions of the Division will include: quality reporting both clinically and outreach focused; attestation; outreach and customer service; payment calculation, verification, and validation; financial reporting; appeals; and coordination with audit functions. Division responsibilities may also be extended to manage requirements of the HIE Cooperative Agreement Program.

The South Carolina Medicaid EHR Incentive Program will be approached in incremental steps and begin with a focus on receiving attestation data electronically. SCDHHS will leverage its medical directors and consider adding clinical staff as Medicaid providers move beyond adopting, implementing, and upgrading to certified EHR technology to approach meaningful use in Year Two of the program.

SCDHHS has hired a Division Director for the Division of HIT. SCDHHS expects that this individual may have input that will impact the draft organizational structure below. The Division will include 11 temporary grant positions and may be expanded or contracted as needed. Other functions will be supported by staff located within various organizational units within SCDHHS including: the Bureau of Federal Contracts, the Division of Audits, the Division of Appeals and Hearings, and the Bureau of Fiscal Affairs. These staff are listed in the gray boxes below.



Temporary grant positions must be established through the Office of State Budget, Budget and Control Board.

Position descriptions for each temporary grant position have been written including the minimum education, training, and experience requirements, job functions, ADA requirements, work schedules, etc. A joint task force formed by the American Health Information Management Association (AHIMA) and the American Medical Informatics Association (AMIA) has determined workforce core competencies for individuals working with EHRs.

### **Role of Medicaid Contractors**

Though the South Carolina Medicaid EHR Incentive Program will be administered and overseen by internal SCDHHS staff, SCDHHS is coordinating with its existing contractors in order that they are informed of SCDHHS' plans for the program.

South Carolina's MMIS is unique in CMS Region IV in that it is a state-run system. Clemson University, a state university, through a contract with SCDHHS provides the system hardware, software, and staff to support the MMIS. South Carolina does not operate its Medicaid program with a Fiscal Agent. SCDHHS has and will continue to coordinate with Clemson University concerning the credit adjustment process for incentive payments and the interface between the SLR and NLR.

SCDHHS is working with its managed care plans to identify those providers that are affiliated with the Medicaid managed care plans but are not yet enrolled directly with the South Carolina Medicaid program, as enrollment with Medicaid is a requirement of South Carolina's Medicaid EHR Incentive Program. The managed care plans have also regularly attended the HIT summits, which provide updates on SCDHHS' plans for the incentive program. Further, the SCDHHS HIT Division Director is meeting with the managed care plans in October 2010 to share additional updates on the South Carolina Medicaid EHR Incentive Program.

SCDHHS' Pharmacy Benefit Manager (PBM), First Health (Magellan Health Services), connects pharmacy data to SureScripts. South Carolina is one of seven states that have a connection to their prescription history to SureScripts. SureScripts is the software used by practice management systems in physicians' office when a script for a Medicaid patient is entered. The practice management systems contract with SureScripts for ePrescribing. SureScripts is the intermediary between the providers practice management software and First Health. This effort will continue to be valuable as providers meet the benchmarks of meaningful use.

SCDHHS' Decision Support Contractor, Thomson Reuters, completed a pilot project with CareEvolution and the Carolina Health Centers that allowed for clinical data to be passed through SCHIEEx into the DSS and merged with claims data to produce quality reports. This effort will continue with the CHIPRA Quality Demonstration Grant, which focuses on the collection of CHIPRA quality measures, and the

methods and best practices from the pilot project and the CHIPRA Quality Demonstration Grant will be applied on a larger scale for use with the entire Medicaid provider population.

### **Fiscal Oversight and Reporting**

The SCDHHS Bureau of Fiscal Affairs will forecast the needed South Carolina Medicaid EHR Incentive Program funds via the CMS-37. Estimated funding for the incentive payments will be based on the anticipated provider adoption rates for physicians and hospitals. The environmental scan data provided these adoption rates. Professional organizations such as the South Carolina Hospital Association, SCPHCA, SCORH, and CITIA will also work with SCDHHS to share data on their anticipated adoption rates and predictions. Data from the CHIPRA grant will also be used. Over the duration of the program, these estimates will be adjusted as providers adopt certified EHR technology.

The MMIS will be the primary data source to track total incentive payments made as well as any overpayments. In the cases of suspected fraud and/or abuse, the Bureau of Compliance and Performance Review may maintain data on incentive payments and recoupments in the event of overpayments.

### **Program Reporting**

The HIT Division will be responsible for preparing and distributing all programmatic reporting related to the South Carolina Medicaid EHR Incentive Program. The Division Director will oversee the preparation of these reports and ensure their accuracy and completeness.

Information submitted to CMS annually includes:

- Reports on Adopt, Implement, Upgrade (AIU) of certified EHR technology
- Activities and payments
- Aggregated data on AIU, clinical quality measures, payments for unique needs (e.g. children)
- Volume statistics on type, practice locations, providers who qualified for incentive payment
- Audit payment history from the NLR and SLR (which must be reconciled)

### **SCDHHS and REC Collaboration**

SCDHHS and CITIA are collaborating to streamline communication by providing regular updates on their respective programs. A recent example of this collaboration was the development of an SCDHHS Medicaid provider bulletin on CITIA services. SCDHHS and CITIA will continue to look for opportunities to

collaborate on provider communication. Regular meetings are held to address issues, barriers, and identify points of collaboration. SCDHHS will share data with CITIA as providers register for the South Carolina Medicaid EHR Incentive Program. CITIA will then follow up with these providers to offer the Regional Extension Center services. More specific points of collaboration will be identified over time.

### **Medicaid IT Tools**

Implementing the EHR incentive program requires a plan that integrates IT systems in addition to fiscal and communications processes that will be used to administer and oversee the EHR incentive payment program. The primary systems used to administer and execute the EHR incentive program include:

**NLR** - is a federal database that is the front door for EPs and EHs seeking incentive payments. SCDHHS is part of the Tier 1 testing group, which will begin testing at the close of October 2010.

**SLR** –is an internally developed database designed to meet eligibility and attestation requirements and to interact with the NLR. The SLR will be the main tool used by the HIT Division to oversee and administer the EHR incentive Program. The SLR will capture state specific data elements and will upload payment and eligibility information back to the NLR. The SLR will contain basic data elements that have been transferred from the NLR such as Tax Identification Number (TIN), the National Provider Identifier (NPI), CMS Certification Number (CCN) for an EH, EP type and affiliation. The SLR will capture additional pertinent information from the EP/EH. For example, EPs will be able to indicate an affiliation with an MCO. EPs will also enter if they are a current subscriber to SCHIEx. The SLR will also capture patient volume and attestation information.

**MMIS** – is the system for administering incentive payments. EHR incentive payments will be processed as credit adjustments through the MMIS using existing functionality. MMIS will maintain an audit trail of all payments.

**DSS/SURS**- will be adapted to receive data on meaningful use and clinical quality measures and house a clinical data repository. SCHIEx will be the conduit to receive clinical reporting data and pass it through an adapter connection to the DSS/SURS for reporting on meaningful use and clinical quality reporting. SCDHHS expects that the data capture will be dual purposed by providing a means for meaningful use attestation and compiling data for analytics to support the goals of improved coordination of care. This process is underway with the CHIPRA Quality Demonstration Grant and will prove useful in determining how to develop this for the larger provider community.

**SCHIEx**- is the state HIE, which is being scaled for statewide use under the HIE Cooperative Agreement. The South Carolina Legislature recently passed Proviso 89.120 (see Appendix C GP:

Information Technology for Health Care) which addressed barriers to health information exchange and supports SCDHHS' requirement that providers connect to an HIE. Specifically, the Proviso allows SCHIEx participants to "release patient records and medical information, including the results of any laboratory or other tests ordered or requested by an authorized health care provider within the scope of his or her license or practice act, to another health information organization that requests the information via an HIE for treatment purposes with or without express written consent or authorization from the patient." The Proviso further states that "A health information organization that receives or views this information from a patient's electronic health record or incorporates this information into the health information organization's electronic medical record for the patient in providing treatment is considered an authorized person for purposes of 42 C.F.R. 493.2 and the Clinical Laboratory Improvement Amendments."

Development of the SLR is planned as the front door to the South Carolina Medicaid EHR incentive program for EPs and EHs. The web portal is a mechanism to allow EPs and EHs to enter the attestation information pertaining to eligibility, AIU, and meaningful use. This portal will also serve as an interface to the NLR. The NLR will transfer data via a batch file transfer and will allow SCDHHS to obtain data from the NLR as well as to send updates to the NLR with pertinent information regarding EPs, EHs, and status of their current attestation. The web form is envisioned as the mechanism to supplement the data in the NLR to capture the additional data elements needed by SCDHHS to authorize a Medicaid incentive payment. SCDHHS is collaborating with CMS on the NLR and are members of the CMS System Technical Advisory Group (S-TAG) to interact about the NLR. Therefore, SCDHHS will be ready to test the interface, validate the database, and document and define the process as soon as the NLR has been developed and is available.

### **Interaction with the NLR**

SCDHHS is working closely with CMS in support of the development of the NLR. SCDHHS is developing its SLR internally. SCDHHS is part of the Tier 1 testing group, which will begin testing at the close of October 2010. The complete SLR Requirements Analysis Outline is available in Appendix E.

The SLR is designed to communicate EHR incentive program registration data with the CMS NLR. The process for a provider registering for the incentive payment begins at the NLR where they will provide basic registration data. The EP/EH registers in the NLR and enters the following data elements:

- EP/EH Name
- NPI
- Business address
- Phone number
- TIN – to which the incentive payment will be made for EP/EH

- Indicate choice of Medicare or Medicaid incentive (EHs can receive both incentives)
- State selected to receive incentive from
- CCN for the EH

Once that data is confirmed by CMS, the data is shared with states and uploaded into the SLR. The NLR sends registration information to the SLR via a batch file transfer. On the log in screen of the SLR, the relationship between the NLR and the SLR is explained.

### **Creating an Account**

When a provider visits the SLR website, they should already have data imported from the NLR. The first step in the registration process is to connect them to that data. One of the identifying data elements generated by the NLR will be a registration number. The SLR uses this number to match the provider to the correct NLR data. The “Create an Account” screen on the SLR site asks for an email address and the NLR registration number.

Once this screen is completed, a confirmation email is sent to the email address with a system generated temporary password. Once they’ve received the temporary password, a provider can then log into the SLR. They will be prompted to change their temporary password to a permanent password when they log in successfully the first time. The HIT Division will send a list of EPs to CITIA in order that CITIA follows up with the EPs to offer extension center services.

If there is no matching registration number, the provider will be informed by the system that they cannot create an account at this time because the system was unable to locate matching NLR data. They will be advised that it may take 24 hours after registration with the NLR for data to be available in the SLR and they will be given contact information for the NLR and SCDHHS HIT Division. The exact timeframe between registering with the NLR and the data being available in the SLR will be determined in the testing phase.

### **Logging into an Account**

Once a provider has confirmed their email address they will be able to log into the SLR anytime by providing the email address and password on the initial screen. Password strength will be at least 10 characters, mixed case alpha and numeric required. Unsuccessful access attempts will be monitored, and an account will be automatically locked after three unsuccessful login attempts. This will take them to the main data entry area of the SLR. Initial access will require that the SLR has first obtained a valid record for the EP/EH from the NLR.

### **NLR Information Verification**

The main work area is divided into sections using a Navigation Bar along the top of the screen. The “Account” section is an area to manage the email address and password for the SLR. The first SLR data section is “Information from the NLR” screen. In this area, a provider can see all of the data that has

been received from the NLR. If the provider identifies any of this pre-populated data as incorrect, the SLR will direct the provider to return to the NLR to modify any NLR data.

### **Workflow**

The site is designed to make it easy for a provider to enter data in any section at anytime and save individual sections. For example, if a provider completes the “Information to the NLR” section, saves it and then exits the system, the provider can return at a later time and complete the rest of their SLR profile at any time. When the provider has completed all modules in the SLR website (eligibility, attestation of AIU/meaningful use), the provider will click a “submit” button, and HIT Division project coordinators will review the submitted information.

### **Provider Eligibility**

The eligibility screens of the SLR are described later in this document under the Provider Eligibility Section.

For each new payment year, the EP is required to review and confirm the data in the NLR and SLR. The HIT Division also reviews eligibility attestation annually and tracks the review date for audit purposes.

At any point, the NLR may send data to the SLR that makes the EP ineligible for the South Carolina Medicaid EHR Incentive Program. For instance, the EP may switch from the Medicaid Incentive Program to the Medicare Program or may choose to receive the incentive from another state.

### **Attestation and Implementation**

The next phase of designing the SLR site is the addition of an Attestation/Implementation section that is only visible to providers who have completed the eligibility sections outlined in this document. The new section will gather data regarding the process of implementing an EHR solution.

### **NLR Interface Security**

South Carolina contracts with Clemson University for the operation, maintenance, and support of its MMIS and Medicaid Eligibility Determination System (MEDS). In this role, Clemson already uses Connect Direct to securely transmit and receive Protected Health Information (PHI) with the Social Security Administration, Department of Defense, and other federal agencies. The Clemson University file transfer protocol (FTP) site will accept files containing registration data for South Carolina Medicaid providers from the NLR via a mainframe to mainframe interface using Connect Direct. Data received into the Clemson FTP site will then be imported into a SQL database (SLR) at SCDHHS via the Virtual Private Network (VPN). Incentive payment transactions will also traverse the VPN as payments will be made through the MMIS.

### **SLR Infrastructure Security**

The server hosting the SLR is a part of the SCDHHS technology infrastructure. As such, it is in a physically secure environment (card access for limited IT staff), and behind redundant firewalls. SCDHHS IT Security Policy requires that all servers be kept up to date with regard to security patches and anti-virus protection. The SLR server is also subject to intrusion prevention and detection monitoring 24 hours a day, 7 days a week.

## **Provider Communication and Tools**

### **Provider Inquiries**

Providers with questions concerning the South Carolina Medicaid EHR Incentive Program may either contact the HIT Division directly via telephone or submit questions to the dedicated email address for the program ([hitsc@scdhhs.gov](mailto:hitsc@scdhhs.gov)). Several HIT Division staff will share the responsibility of addressing provider inquiries. As SCDHHS begins to receive more questions from providers, a series of “Questions and Answers” pages will be developed for the HIT website (<http://www.scdhhs.gov/hit>) as another resource for providers.

### **SLR Website**

Providers will access the SLR via the web (<http://www.scdhhs.gov/slr>). This proprietary website is currently under development and will be secure with Secure Sockets Layer (SSL) encryption. The HIT website (<http://www.scdhhs.gov/hit>) will also include a link for providers to access the SLR website. Once a provider registers with the NLR, the SLR website will be the sole site a provider must access and enter data in for the South Carolina Medicaid EHR Incentive Program. As part of SCDHHS’ provider outreach campaign, SCDHHS will encourage providers to enter their email addresses in the NLR site (this is an optional field for the NLR) in order that SCDHHS can maintain electronic communications with providers and reduce hard copy and manual processes. SCDHHS will use the email addresses collected to invite providers to register with the SLR. SCDHHS will also use the email addresses to confirm SLR registration and other related messaging to providers. SCDHHS will mail hard copy letters to providers that do not initially provide an email address during registration with the NLR.

## **Provider Eligibility**

Every EP and EH will register in the NLR. Basic data elements will be collected at the federal level and then passed on to South Carolina’s SLR. Initially, the SLR will accept these data through a batch file transfer. Providers will enter additional data elements into the SLR via a web portal including patient volume, hospital-based status, and attestation of AIU/meaningful use of certified EHR technology.

## **Provider Enrollment Requirements**

SCDHHS is requiring EPs and EHs to be enrolled in the South Carolina Medicaid Program. In order to participate in the Medicaid program, a provider must meet all of the following requirements:

- Licensure by the appropriate licensing body, certification by the standard-setting agency, and/or other pre-contractual approval processes established by SCDHHS
- Enrollment in the South Carolina Medicaid program
- Obtain an NPI and share it with South Carolina Medicaid
- Continuously meet South Carolina licensure requirements of their respective professions or boards in order to maintain Medicaid enrollment

The Medicaid Claims Control System (MCCS) contractor manages provider enrollment and disenrollment for the South Carolina Medicaid program. MCCS maintains a proprietary system for tracking provider enrollment and verifies all information collected. During enrollment, providers are also manually checked against the Office of the Inspector General (OIG) exclusion list and South Carolina specific exclusion lists. Providers enrolling in Medicaid must also complete a Disclosure of Ownership and Control Interest Statement, and all names listed in the disclosure form are checked against the exclusion lists.

For purposes of treating Medicaid patients, it is not required for managed care providers (who do not participate in the fee-for-service Medicaid program) to enroll with South Carolina Medicaid. SCDHHS is working with its Medicaid managed care plans to identify those providers that are not enrolled as Medicaid providers. SCDHHS will conduct an outreach campaign to those providers to ensure that providers understand this requirement for South Carolina's Medicaid EHR Incentive Program.

SCDHHS does not credential fee-for-service providers. However, to ensure that providers are licensed, SCDHHS checks the applicable state licensure board or the authorized approving entity such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), etc. In addition, if SCDHHS cannot verify a license, SCDHHS requests a copy of a current, valid license.

South Carolina managed care plans initially credential providers upon enrollment with the managed care plan and then re-credential providers every three years. Also, to enroll with a managed care plans, providers must be licensed in accordance with the South Carolina Department of Labor, Licensing and Regulation (LLR).

Both the existing policies and procedures and the planned future state for the MMIS and the South Carolina Medicaid EHR Incentive Program ensures that provider licensure will tracked, monitored, and audited as needed. A prerequisite for applying for an EHR incentive payment is to be an enrolled

Medicaid provider. Since the licensure is checked for all providers in MMIS, the existing processes will ensure that incentive payments will only be made to providers who are properly licensed and enrolled.

### Eligibility Criteria for EPs

**Provider Type:** EPs for the South Carolina Medicaid EHR Incentive Program include physicians, dentists, certified nurse midwives, nurse practitioners, and physician assistants (PA) in a FQHC or RHC that is “so led” by the PA. “So led” is defined as: (1) the PA is the primary provider in a clinic (2) the PA is a clinical or medical director at the practice (3) the PA is an owner of the FQHC or RHC. For purposes of the incentive program, SCDHHS includes optometrists as physicians as the South Carolina State plan specifically provides that the term “physicians’ services” includes services of the type which an optometrist is legally authorized to perform.

The table below identifies licensure requirements that providers must meet in order to be licensed by the South Carolina LLR. Providers must be licensed by the South Carolina LLR to enroll with the South Carolina Medicaid program. The provider types listed below are the EP provider types for the South Carolina Medicaid EHR Incentive Program based on licensure requirements and scope of practices defined under State law.

An outreach campaign on the requirement for providers to be enrolled with South Carolina Medicaid will be extended to RHC and FQHC leaders, professional associations, and managed care plan providers via Medicaid provider bulletins.

South Carolina Licensure Requirements
<p><b>Physician:</b></p> <ul style="list-style-type: none"><li>• Submit a completed application to the South Carolina Department of LLR</li><li>• Education requirements:<ul style="list-style-type: none"><li>○ Graduated from a medical school located in the US or Canada that is accredited by the Liaison Committee on Medical Education; or</li><li>○ Graduated from a school of osteopathic medicine located in the US or Canada that is accredited by the Commission on Osteopathic College Accreditation; or</li><li>○ Graduated from a medical school located outside the US or Canada that possesses a permanent Standard Certificate from the Education Commission on Foreign Medical Graduates</li></ul></li><li>• Post-Graduate training requirements:<ul style="list-style-type: none"><li>○ Graduates of medical or osteopathic schools located in the US or Canada must document the completion of a minimum of one year of postgraduate medical residency training</li><li>○ Graduates of medical schools outside of the US or Canada must document a minimum of three years of progressive postgraduate medical residency in the US</li></ul></li><li>• Examination Requirements<ul style="list-style-type: none"><li>○ All parts of the National Board of Medical Examiners Examination in approved sequence</li><li>○ All parts of the National Board of Osteopathic Medical Examiners Examination</li><li>○ Federation Licensing Exam (FLEX)</li></ul></li></ul>

### South Carolina Licensure Requirements

- United States Medical Licensing Examination (USMLE)
- Medical Council of Canada Qualifying Examination (MCCQE) in approved sequence
- Comprehensive Osteopathic Medical Licensing Examination (COMLEX-USA)
- Written state examination of another state medical, osteopathic, or composite board prior to 1976 and current certification by a specialty board recognized by the American Board of Medical Specialties
- Special Purpose Examination or the Composite Osteopathic Variable Purpose Examination
- Personal interview with a board member or the full board

#### **Optometrist:**

- Submit a completed Application for Examination and Licensure in Optometry to the S.C. Board of Examiners in Optometry
- Graduated from a Council on Optometric Education accredited school and receive an O.D. degree
- Complete and pass the S.C. Board of Examiners in Optometry Jurisprudence Examination
- Licensure by Credentials Requirements:
  - National Board of Examiners in Optometry (NBEO) scores showing passage of Part I, Part II, Part III, and the Treatment and Management of Ocular Disease Examination (TMOD)
  - Verification of licensure from all states in which the Optometrist has ever held a license to practice optometry, including documentation of military service
- Licensure by Endorsement Requirements:
  - Currently hold an active and unrestricted license to practice optometry in another jurisdiction that includes authorization by law to treat glaucoma.
  - Actively practice optometry at the therapeutic level for the past 12 or 24 months out of the 36 months immediately preceding this application
  - Verification of licensure from all states in which the Optometrist has ever held a licensure to practice optometry, including military service. TPA licensure must also be report on current practice state's verification
  - Submit proof of passage of a practical examination that was required for licensure in another state
  - If applicable, have the National Board of Examiners in Optometry (NBEO) report examination scores directly to the Board office

#### **Dentist:**

- Submit a completed application to the South Carolina Department of LLR
- Graduated from a dental program accredited by the American Dental Association (ADA)
- Successful completion of a Board-approved clinical dental licensure examination
- Successful completion of the National Board Examination
- Successful completion of the South Carolina jurisprudence examination
- Personal interview with the Board, if requested

#### **Certified Nurse Midwife:**

- Submit a completed application to the South Carolina Department of LLR
- Verification of original state licensing examination

### South Carolina Licensure Requirements

- Competency Requirement (must complete at least one item from list below):
  - Completion of 30 contact hours from a continuing education provider recognized by the Board
  - Maintenance of certification or re-certification by a national certifying body
  - Completion of an academic program of study in nursing or a national field
  - Verification of competency and the number of hours practiced as evidenced by employer certification on a form approved by the Board

#### **Nurse Practitioner:**

- Submit a completed application to the South Carolina Department of LLR
- Verification of original state licensing examination
- Competency Requirement (must complete at least one item from list below):
  - Completion of 30 contact hours from a continuing education provider recognized by the Board
  - Maintenance of certification or re-certification by a national certifying body
  - Completion of an academic program of study in nursing or a national field
  - Verification of competency and the number of hours practiced as evidenced by employer certification on a form approved by the Board

#### **Physician Assistant:**

- Submit a completed application to the South Carolina Department of LLR
- Complete educational program for physician assistants approved by the Commission on Accredited Allied Health Education Program
- Successful completion of the NCCPA certifying examination and documentation that the individual possesses a current and active NCCPA Certificate
- Appear before a Board member or designee with the supervising physician and all original diplomas and certificates
- Successful completion of an examination on the statutes and regulations regarding physician assistant practices and supervision

**Practice Location:** EPs at FQHCs and RHCs must meet the practice predominantly criteria (more than 50% of the EP's encounters over a period of six months occurs at the FQHC or RHC) for an incentive payment. The SLR will have branching logic with drop down options for the EP to select the specific FQHC or RHC that he/she is affiliated with. The SLR will also have logic to accommodate if an EP practices in more than one FQHC/RHC. The SLR will also include fields for the EP to indicate the percentage of time spent at each site he/she is affiliated with. HIT Division staff will verify that the EPs at FQHCs and RHC meet the practices predominantly requirements by using Medicaid claims data and random audits.

Since hospital based providers are not eligible for an EHR incentive payment, Place of Service (POS) 21 and POS 23 codes will be used to identify hospital based physicians who are not eligible for an incentive payment. HIT Division staff will look up providers' claims and managed care plans encounter data housed in the MMIS to audit whether the providers are hospital based or not if the provider indicates in the SLR they practice in a hospital or emergency room.

**Patient Volume:** SCDHHS opted to use the two options listed in the final rule. SCDHHS has a fee-for-service Medicaid and managed care model, so SCDHHS aims to support providers in the most flexible way for determining patient volume by making both patient volume calculations available. The first option is that EPs must have a minimum of 30 percent of all patient encounters attributable to Medicaid during a 90-day period in the most recent calendar year prior to the year of reporting. The second option is that EPs must have a minimum of 30 percent of the total Medicaid patients assigned to the EP, with at least one encounter taking place during the calendar year preceding the start of the 90-day period, plus unduplicated Medicaid encounters in the same 90 day period. For a listing of South Carolina managed care plans that participate in the Medicaid program, please refer to the EH Eligibility Criteria patient volume section.

**Option One Formula:**

$$\frac{\text{Total Medicaid encounters in any representative continuous 90 day period in preceding calendar year}}{\text{Total patient encounters in the same 90 day period}} \times 100$$

**Option Two Formula:**

$$\frac{\left( \begin{array}{l} \text{Total Medicaid patients assigned to the} \\ \text{provider in any representative continuous} \\ \text{90 day period in the preceding calendar} \\ \text{year, with at least one encounter taking} \\ \text{place during the calendar year preceding the} \\ \text{start of the 90 day period} \end{array} \right) + \left( \begin{array}{l} \text{Unduplicated Medicaid} \\ \text{encounters in the same} \\ \text{90 day period} \end{array} \right)}{\left( \begin{array}{l} \text{Total patients assigned to the provider} \\ \text{in the same 90 day period, with at least} \\ \text{one encounter taking place during the} \\ \text{calendar year preceding the start of the} \\ \text{90 day period} \end{array} \right) + \left( \begin{array}{l} \text{All unduplicated} \\ \text{encounters in the} \\ \text{same 90 day period} \end{array} \right)} \times 100$$

Pediatricians must only reach a 20 percent patient volume. Medicaid patients, patients enrolled in Medicaid MCOs, and dually-eligible beneficiaries are included in the calculation to determine that the threshold of patient volume has been met for the Medicaid incentive. “Needy individuals” (i.e. individuals in Medicaid or the Children’s Health Insurance Program (CHIP), individuals receiving uncompensated care, or individuals receiving care at no cost or reduced cost based on a sliding scale) are included in the calculations for FQHCs and RHCs.

Providers in FQHCs or RHCs will be required to use cost reports or other auditable records to identify bad debt. Therefore, the provider is responsible for adjusting the uncompensated care individuals encounter information used in the calculation of the FQHC and RHC EP patient volume calculation to account for bad debts when they file their initial and subsequent patient volume attestations. As with all other attestations, this information is subject to audit.

CHIP beneficiaries cannot be included in the calculation for Medicaid volume. Medicaid and CHIP beneficiaries utilize the same identification cards, so there is no way for a provider to distinguish which program a beneficiary is in. Providers will have access to a table in the SLR that lists the percentage of CHIP encounters to total Medicaid encounters by county. Providers must use this as a resource for determining their CHIP volume when attesting to their Medicaid patient volume. For example, an EP that is a pediatrician practicing in Charleston County may calculate that he/she has a Medicaid patient volume of 31%. Since there is not a way for EPs to differentiate between Medicaid and CHIP patients, the pediatrician would refer to the reference table to be included in the SLR. For Charleston County, the percent of CHIP to total Medicaid encounters is 7.26%. The pediatrician would then reduce its total count of Medicaid encounters by 7.26%, thus reducing the total Medicaid patient volume to 28.8%.

HIT Division staff will use this county-by-county CHIP/Medicaid allocation to verify the Medicaid patient volumes to which providers attest. Providers' volume attestations will be audited through the standard audit process.

Per the final rule (see [495.306(h)]), clinics and group practices may opt to use the practice or clinic Medicaid patient volume for all of its EPs under three conditions:

- (1) The clinic or group practice's patient volume is appropriate as a patient volume methodology calculation for the EP (for example, if an EP only sees Medicare, commercial, or self-pay patients, this is not an appropriate calculation);
- (2) there is an auditable data source to support the clinic's patient volume determination; and
- (3) so long as the practice and EPs decide to use one methodology in each year (in other words, clinics could not have some of the EPs using their individual patient volume for patients seen at the clinic, while others use the clinic-level data)

If a clinic or group practice chooses this methodology for the patient volume calculation, an EP in that clinic or group may choose to use the clinic volume as a proxy for their own; or, the EP may choose to attest to his or her own individual patient volume, so long as their individual volume calculation only includes the EP's encounters that are not included in the clinic's volume calculation. The clinic or group practice is also required to use the entire practice's patient volume and not limit it in any way. SCDHHS has defined a group practice as a group of healthcare practitioners organized as one legal entity under one tax identification number (TIN).

HIT Division staff will use the MMIS as its primary resource for verifying patient volume, along with reports generated by the Thomson Reuters Advantage Suite for verifying that CHIP beneficiaries are not included in the Medicaid patient volume calculation. Random audits will be conducted to verify the patient volume data to which EPs attest.

### **Eligibility Criteria for EHs**

**Provider Type:** Hospitals eligible for the incentive program include acute care hospitals and CAHs (CCNs in the series 0001 through 0879 or 1300 through 1399) and children's hospitals (CCNs in the series 3300 through 3399). There are no free standing children's hospitals eligible for the Medicaid EHR Incentive Program in South Carolina.

An acute care hospital is defined as a health care facility where the average length of patient stay is 25 days or fewer and a CCN number (i.e. provider number) whose last four digits in the series run from 0001 through 0879 and 1300 through 1399.

A children's hospital is defined as a separately certified children's hospital with a CCN number (i.e. provider number) whose last four digits run from 3300 through 3399.

In order to validate the average length of stay requirement of 25 days or fewer for the acute care hospitals, SCDHHS will utilize the applicable statistics of worksheet S-3, Part I of the most recently filed South Carolina Medicare/Medicaid cost report. The South Carolina Medicaid Program does not separately recognize non general acute care unit(s) (e.g. psych or rehab beds). Medicaid patients admitted to a general acute care hospital for the treatment of mental disease are sponsored in the same way as patients for any other disease. Inpatient rehabilitative services are reimbursable only when provided by a rehab unit within a general acute care hospital. Therefore, in the event that an acute care hospital has a non general acute care unit(s) (e.g. psych or rehab beds) located within the walls of the general acute care hospital, the days and discharges associated with these beds will be included in the average length of stay determination.. SCDHHS will verify/reconcile its computation with the appropriate Medicare Intermediary.

**Patient Volume:** SCDHHS has selected the option listed in the final rule and is not proposing any alternative methods to calculate patient volume for EHs. The EH Medicaid patient volume threshold requires that EHs must have a minimum of 10 percent of all patient encounters attributable to Medicaid during a 90-day period in the most recent fiscal year prior to the year of reporting.

Acute care hospitals must meet a 10% patient volume over a 90-day period in the most recent fiscal year prior to the year of reporting to qualify for the program. Children's hospitals have no patient volume requirements.

In order to calculate the volume, the following formula will be used:

Total Medicaid patient encounters in any representative, continuous 90 day period in the preceding fiscal year divided by total patient encounters in that same 90 day period.

For purposes of this formula, the following definitions will apply:

1. A representative, continuous 90 day period is defined as three continuous calendar months chosen by the general acute care hospital that is representative of its normal operations. For example, if the selected period included a short term, one-time temporary Medicaid outreach program to meet the patient volume thresholds, then it would not support the volume calculation. Annual outreach events would still be representative.
2. For purposes of calculating the volume, the hospital must apply the following definitions of Medicaid encounters in its calculation, and include both inpatient and emergency department encounters:
  - A Medicaid encounter means services rendered to an individual per inpatient discharge where:
    - Medicaid (or a Medicaid demonstration project approved under section 1115 of the Act) paid for all or part of the service; or
    - Medicaid (or a Medicaid demonstration project approved under section 1115 of the Act) paid for all or part of the individual's premiums, co-payments, and/or cost sharing.
  - A Medicaid encounter means services rendered in an emergency department on any day where:
    - Medicaid (or a Medicaid demonstration project approved under section 1115 of the Act) paid for all or part of the service; or
    - Medicaid (or a Medicaid demonstration project approved under section 1115 of the Act) paid for all or part of the individual's premiums, co-payments, and/or cost sharing.

Medicaid encounters and total encounters must be reported using the same basis. If inpatient discharges are used as the encounter basis and the acute care hospital has a non general acute care unit(s) (e.g. psych or rehab beds) located within the walls of the general acute care hospital, the Medicaid discharges may also include those discharges where services were provided within those beds. Therefore, in order to ensure that the Medicaid volume calculation is not artificially inflated, total inpatient discharges should include the non general acute care units' inpatient discharges as part of total inpatient hospital discharges. A Medicaid patient seen in both the general acute care and non general

acute care units identified above will only be counted as a single (one) discharge if the services take place on one day. If a patient is discharged from one unit and admitted to another and discharged on a second day, that is counted as two discharges.

Qualifying Title XIX (Medicaid) eligible individuals will include both in-state and out-of state individuals covered/enrolled in the:

- Medicaid fee for service program (includes the Medical Home Network (MHN) enrollees);
  - South Carolina Medicaid MHN: South Carolina Solutions; SCDHHS is in the process of adding two new MHNs with an anticipated target date of January/February 2011.
- Medicaid MCOs;
  - South Carolina Medicaid MCOs: First Choice by Select Health of South Carolina, Unison Health Plan (Name change pending, with a target date of January 1, 2011), Absolute Total Care, BlueChoice HealthPlan of South Carolina
- Medicaid prepaid inpatient health plans (PIHPs);
  - There are no Medicaid PIHPs in South Carolina.
- Medicaid prepaid ambulatory health plans (PAHPs);
  - There are no Medicaid PAHPs in South Carolina.
- Medicaid Program of All Inclusive Care for the Elderly (PACE) Programs;
  - SCDHHS will require the hospitals that contract with the two PACE Programs operating within the state to provide the number of Medicaid inpatient hospital days served during the applicable hospital fiscal year end reporting period that will be used to determine the incentive payments to the qualifying hospitals.
- Medicaid with commercial insurance carrier; and
- dual eligible (Medicaid/Medicare) individuals (including those individuals with claims where the Medicare paid amount exceeded the Medicaid allowed amount).

Hospitals must annually attest to meeting the volume requirement of ten percent (10%) in accordance with the methodology outlined above in order to continue eligibility in the South Carolina Medicaid EHR Incentive Program. Hospitals will be allowed to change their 90 day consecutive period each year as long as it is representative of its normal operations.

CHIP beneficiaries cannot be counted in the Medicaid volume. Medicaid and CHIP beneficiaries utilize the same identification cards, so there is no way for a provider to distinguish which program a beneficiary is in. EHs will have access to a table in the SLR that lists the percentage of CHIP encounters to total Medicaid encounters by county. EHs must use this as a resource for determining their Medicaid volume. Providers' volume attestations will be audited through the standard audit process.

In order to verify the patient volume encounter data submitted by hospitals, the SCDHHS will employ the following procedures:

- A. Hospitals will be required to submit the following summary encounter information using either inpatient discharges or ER visits as the basis for the three month (i.e. 90 day) period for both in state and out of state qualifying Medicaid eligibles. The summary encounter information should separately identify the South Carolina Medicaid eligibles from the out of state Medicaid eligibles and should also include an adjustment to remove the estimated CHIP encounters from the Medicaid fee for service encounters:
1. Medicaid Fee for Service Program;
  2. Medicaid MCOs;
  3. Medicaid PIHPs;
  4. Medicaid PAHPs;
  5. Medicaid PACE Programs;
  6. Medicaid with commercial insurance carrier;
  7. Dual Eligibles (Medicaid/Medicare) individuals (including those individuals where Medicaid paid for all or part of the service or where Medicaid paid \$0 for the service since the Medicare paid amount exceeded the Medicaid allowed amount);
  8. Total encounters provided during the three month period; and
  9. CHIP exclusion adjustment factor percentage.
- B. Hospitals will be required to submit excerpts from their monthly Board Meeting Minutes or their monthly financial statements to support the total number of inpatient discharges or ER visits incurred during the three month period used for patient volume qualification as identified in section (A)(8) above. EHs will be required to submit this information directly to the Bureau of Reimbursement Methodology and Policy, along with the information described in the previous paragraph.
- C. The SCDHHS will determine the number of SC Medicaid eligible encounters (i.e. inpatient discharges or ER visits) by using its MMIS paid claims data, its Medicaid MCO encounter data, and the CHIP exclusion adjustment factor percentage for the three month qualification period used by the provider to perform a reasonableness check on that data submitted by Medicaid EHs. In the event that the in house Medicaid MCO encounter data cannot be readily used to determine the total number of encounters incurred by the hospital for analysis purposes, the SCDHHS will seek this information from the applicable Medicaid MCO(s) and reconcile accordingly with the qualifying hospital.
- D. The SCDHHS will use its CHIP adjusted SC Medicaid eligible encounter information provided via its claim payment system (MMIS) and its Medicaid MCO encounter data to determine if the hospital meets the patient volume requirement of 10% using SC Medicaid eligibles only. If the 10% patient volume requirement is met using this methodology, then no further analysis will be performed. However, if the 10% patient volume requirement is not met using the SC Medicaid eligibles data identified above, then the SCDHHS will request additional detail and perform

various sampling techniques on the data submitted to determine the reasonableness of the out of state data submitted for the 10% patient volume eligibility determination.

### **EP and EH Data**

This section of the SLR gathers data elements needed to go back to the NLR. One of two different screens will be shown depending on whether the user has been designated an EP or an EH. The “Provider Affiliation” and “Type of EP” fields are drop down menus allowing a limited number of responses.

### **Patient Volume**

The patient volume section includes the needed data fields as well definitions for key terms and some policy guidance related to the 90 day period. The beginning and the ending dates are gathered so the system can run an automatic check on the date and verify some basic parameters.

## **Attestation of Adopt, Implement, Upgrade (AIU)**

Attestation for AIU of certified EHR technology provides evidence that the EPs and EHs have met this requirement and are eligible for an incentive payment (provided the other eligibility criteria are met).

**Adoption** is defined as acquisition, purchase, or secured access to certified EHR technology. This evidence would serve to differentiate between activities that may not result in installation (for example, researching EHRs or interviewing EHR vendors) and actual purchase, acquisition, or installation.

**Implementation** is defined as the provider has installed certified EHR technology or has commenced utilization of certified EHR technology in his or her clinical practice. Implementation activities would include staff training in the certified EHR technology, the data entry of their patients' demographic and administrative data into the EHR, or establishing data exchange agreements and relationships between the provider's certified EHR technology and other providers, such as laboratories, pharmacies, or HIEs.

**Upgrade** is defined as the provider moving from non-certified to certified EHR technology, or expansion of the available functionality of certified EHR technology.

SCDHHS plans to develop an electronic web form as part of the SLR to compile and maintain the information required to verify attestation of both eligibility and use of certified EHR technology.

## **Meaningful Use**

### **Attestation of Meaningful Use**

In their first year of participation in the Medicaid EHR incentive program, at minimum, Medicaid providers must attest to AIU. Medicaid providers who meet the Stage 1 meaningful use criteria will be able to attest to meaningful use in the SLR beginning in 2012. Dually eligible hospitals must meet meaningful use for the Medicare EHR Incentive Program in their first year of participation. SCDHHS is focusing on the AIU requirement for 2011 and expects develop the capacity to accept meaningful use attestations and will submit its methodology to CMS for approval for use beginning 2012. SCDHHS will leverage its experiences with the CHIPRA Quality Demonstration Grant and Thomson Reuters to determine the most effective way to accept clinical quality measures from providers.

### **State-Specific Requirement for Meaningful Use**

The final rule on the EHR Incentive Program gives states the opportunity to require any of the four menu set public health measures as a core requirement for their Carolina Medicaid EHR Incentive Program. SCDHHS and DHEC met and agreed to require the meaningful use measure on immunization reporting as a core requirement for the South Carolina Medicaid EHR Incentive Program. This Stage 1 measure requires EPs and EHs to attest to the following:

Performed at least one test of certified EHR technology's capacity to submit electronic data to immunization registries and follow up submission if the test is successful (unless none of the immunization registries to which the EP, EH or CAH submits such information have the capacity to receive information electronically)

Two significant factors contributed to SCDHHS' decision to include this meaningful use measure as a state-specific requirement:

**Immunization Registry Readiness:** The immunization registry which is currently maintained by SCDHEC consists of both CARES, the history and analytics repository for registry, and IIS, the SCDHEC HL-7 Enabled IIS providing the messaging infrastructure. IIS meets the requirements of the CDC Implementation Guide for Immunizations Data Transactions, Version 2.2. It is capable of processing the standard transactions VXQ, VXR, VXX, and VXU. Currently, SCDHEC is limited to one private provider EMR connected to the IIS. This provider's system is only capable of sending VXU transactions.

The project to connect the SCDHEC immunization registry, i.e., CARES and IIS, to SCHIEEx is currently in progress. The first step of this plan is to test HL7 transactions between CARES/IIS and SCHIEEx using secure messaging following by “application testing” which consists of sending and querying of immunization records. This testing is followed by “integration testing” which includes integration of CARES with the SCHIEEx RLS. This completes the integration of the IIS Immunization Adapter with the SCHIEEx core services. The final result will be a bi-directional interaction between SCHIEEx and the immunization registry by November 2010.

SCDHEC has tested HL7 messaging with SCHIEEx, and as of October 2010, SCDHEC and ORS will begin beta testing. When the adapter is in place, SCDHEC will be able to connect to the RLS. When this has been accomplished, EPs and EHs will be able to achieve meaningful use requirements such as demonstrating the ability to electronically submit data to immunization registries and actual submission where required and accepted.

**State Law to Establish Statewide Immunization Registry:** H\*4446 was passed on June 1, 2010 and requires SCDHEC to establish a statewide immunization registry, to require health care providers to report the administration of immunizations to the department, and to provide civil penalties for violators. Accompanying regulations will be promulgated no later than 2012 and will recognize the transmission of immunization data from EHRs by means of SCHIEEx to the immunization registry as the optimal solution. See Appendix F for the full text of the statute.

SCDHHS expects that the state requirement for providers to report the administration of immunizations to SCDHEC will be reasonable to achieve as the provider meets the required meaningful use criteria. However, SCDHHS has identified some potential provider barriers to this requirement including:

- Uncertainty of the code set providers will use when sending immunization data
- The need to modify business practices

Over the next quarter, SCDHHS, SCDHEC, and other stakeholders will collaborate on developing a communication plan to inform providers on this additional state-specific meaningful use measure. As SCDHHS expects most providers will pursue the adopt/implement/upgrade requirement for the first year of the program’s operation, SCDHHS anticipates that a minimal number of providers will meet meaningful use in the first operational program year. Regardless, SCDHHS aims to keep its provider informed in advance of all decisions relating to the South Carolina Medicaid EHR Incentive Program.

### **Clinical Quality Reporting**

SCDHHS will be developing a more detailed plan in the coming months in order to collect clinical quality measures in 2012. Currently, SCDHHS plans to study the work accomplished in the CHIPRA Quality Demonstration Grant and leverage its work. For CHIPRA grant participants, clinical quality measures, generated as output of a certified EHR, will be submitted via SCHIEEx to the DSS. The DSS will store the

clinical quality measure components (i.e. numerator, denominator, exceptions) as submitted by providers. This submission will utilize a standard format agreed to by suppliers of certified EHRs or a format supplied by SCDHHS. The retention of these summary measures in the DSS will facilitate the development of a quality measures baseline, forming a basis for comparison from which future progress may be compared. SCDHHS will engage its contractor, Thomson Reuters, to develop a solution for clinical quality reporting.

Thomson Reuters intends to combine clinical data with administrative and eligibility data in the DSS. This approach provides SCDHHS with enhanced capabilities for program management and population analytics including the following operational and analytic capabilities:

- Report on clinical data quality as EPs and EHs connect to the HIE
- Track the relationship between the quality of care and the cost of care
- Experiment with emerging clinical quality measures
- Identify data quality and program integrity issues by analytically linking clinical data to administrative data
- Enable analysis of Accountable Care Organizations / Programs
- Identify trends in population health
- Support patient-centric analytics (risk stratification, health assessment, episodic analysis)
- Perform ad hoc analyses in support of emerging issues & questions
- Quickly trigger early patient interventions indicated by clinical data

## **Incentive Payment Calculation and Processing**

### **Conditions for Payment**

Prior to SCDHHS making a payment to an EP or EH, certain conditions must be satisfied:

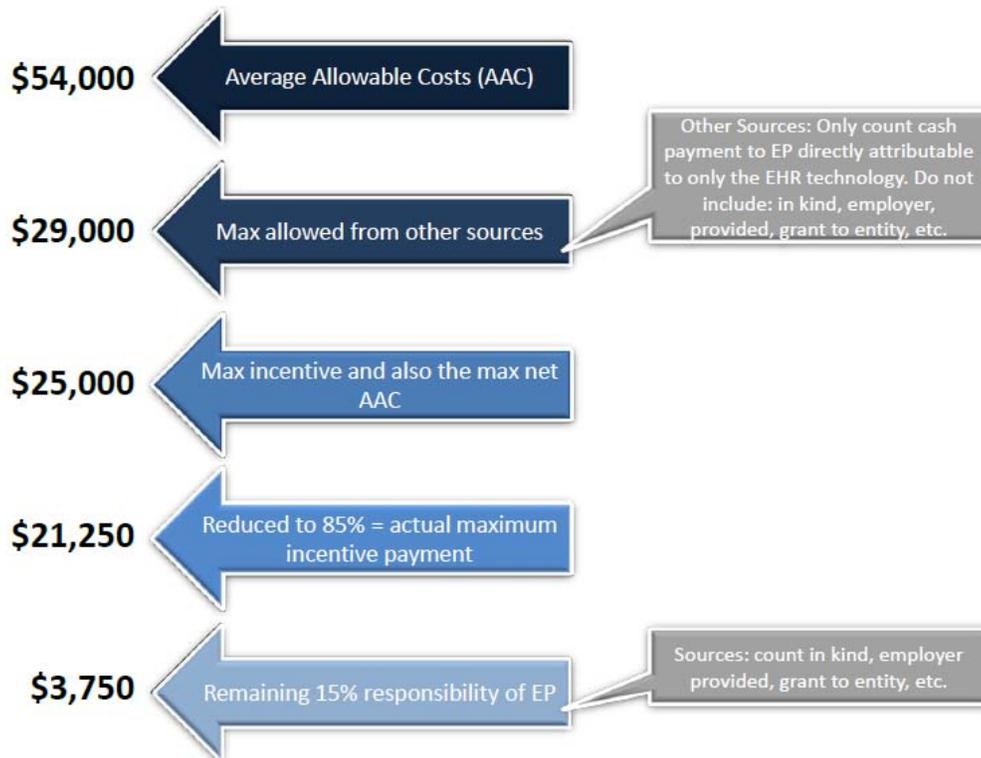
- At minimum, the provider must have adopted, implemented, or upgraded to certified EHR technology for payment year 1. A provider may choose to meet and attest to the Stage 1 meaningful use measures (or the applicable stage, depending on the program participation year) for payment year 1, beginning 2012.

- Provider must not appear on the OIG (CMS will check this through the NLR) or South Carolina sanctions list (SCDHHS will check this list. State-based sanctions apply insofar as they prohibit a provider from receiving federal money.)
- Provider must not have already received a payment from another state or South Carolina in the current program year
- EPs must not have already received a payment from Medicare in the current program year

SCDHHS is prepared to begin making payments as early as January 2011 to those providers that have registered for the program and demonstrated that they have adopted, implemented, or upgraded to certified EHR technology or met Stage 1 meaningful use.

### Incentive Payments to EPs

The HIT Division will verify that incentive payment does not exceed 85% of the Net Average Allowable Costs (NAAC). The diagram below depicts the NAAC and the incentive payment amount an EP is eligible for in the first year of participation in the program.



The HIT Division will initiate an electronic credit adjustment that will be processed by the legacy MMIS system. Each user that creates adjustments in the system will have a unique ID for tracking purposes,

and incentives will be tracked with new fund codes. Payments will be made via electronic funds transfer (EFT). As providers are determined eligible to receive payments, their incentive payments will be incorporated into the weekly payment schedule within 45 days of receipt of a “clean” record (e.g. no missing information, verification of all pre-payment data) . No incentive payments will be disbursed through Medicaid managed care plans. The HIT Division will notify the provider of the payment via email, where provided, and hard copy letter. The SLR will submit payment data to the NLR.

Payments under the Medicare and Medicaid EHR Incentive Programs will be treated like all other income. The incentive payment legal authorities do not supersede any state or federal laws requiring wage garnishment or debt recoupment; therefore, if there is a legal basis for the state or federal government to net or recoup debts, such authority will apply to incentive payments, just as it applies to all other income.

### **Incentive Payments to EHs**

The SCDHHS Bureau of Reimbursement Methodology and Policy will calculate each hospital’s aggregate EHR incentive amount on the federal fiscal year to align with hospitals participating in the Medicare EHR incentive program. Therefore, each payment year will equate to the federal fiscal year. For purposes of administrative simplicity, CMS requires the Medicaid agency to use data on the hospital discharges from the hospital fiscal year that ends during the federal fiscal year prior to the fiscal year that serves as the first payment year in the determination of the Medicaid Share amount.

The Bureau will use auditable data sources to calculate the Medicaid aggregate EHR hospital incentive amounts, as well as determining Medicaid incentive payments to these providers. Auditable data sources include: (1) Provider’s Medicare/Medicaid cost reports; (2) Payment and Utilization information from MMIS (or other automated claims processing systems or information retrieval systems); and (3) Hospital financial statements and accounting records. The following primary source documents will be used in the determination of the following components the Medicaid Share of the aggregate EHR Incentive Payment for EHs:

<b>Component</b>	<b>Primary Source Document</b>	<b>Secondary Source Document</b>
Average Annual Growth Rate of Discharges	Applicable HFY Medicare/Medicaid Cost Reports	None, however, will need to verify that psych, rehab, and nursery discharges are reflected in total discharges in the Medicare cost report
Estimated Medicaid I/P Bed Days	Applicable HFY Medicare/Medicaid Cost Reports and Summary MARS Reports generated via MMIS and adjusted by the SCDHHS CHIP percentage table	Hospital Generated Data from its accounting and billing systems and adjusted by the SCDHHS CHIP percentage table

Component	Primary Source Document	Secondary Source Document
Estimated Medicaid MCO I/P Bed Days	Applicable HFY Medicaid MCO Encounter Data adjusted by the SCDHHS CHIP percentage table and hospital supplied data on PACE I/P days from contracting hospitals' accounting and billing systems	MCO Generated Data from its accounting and billing systems adjusted by the hospital supplied SCDHHS CHIP percentage table
Estimated Total I/P Bed Days	Applicable HFY Medicare/Medicaid Cost Reports	None, however, will need to verify that psych, rehab, and nursery days are reflected in total days in the Medicare cost report
Estimated Total I/P Hospital Charges	Applicable HFY Medicare/Medicaid Cost Reports	None
I/P Charity Care Charges	Provider Submitted from Hospital Accounting and Billing Systems	None

SCDHHS normally supplies each contracting hospital with a Summary Management and Administrative Reporting System (MARS) listing of inpatient and outpatient hospital charges and payments that is used by the hospital in its preparation of its annual fiscal year end cost report. As part of the SCDHHS Medicaid inpatient and outpatient cost to charge ratio determination, SCDHHS reconciles Medicaid routine and ancillary charges as well as Medicaid inpatient days to the providers cost report. MMIS data normally supersedes all data sources unless the provider provides supporting documentation to support the use of its own data.

The aggregate EHR incentive amount is equal to the sum over four years of the base amount of \$2 million each year plus the discharge related amount defined as \$200 for the 1,150<sup>th</sup> through the 23,000<sup>th</sup> discharge for the first payment year. For subsequent payment years, the SCDHHS will assume discharges increase by the provider's average annual rate of growth for the most recent three years for which data are available per year (which will be the provider's cost reporting fiscal year end). Note that if a hospital's average annual rate of growth is negative over the three year period, it will be applied as such. Transition factors are applied to years one through four in the following amounts; Year One - 1; Year Two - .75; Year Three - .5, and Year Four - .25. Also note that if the acute care hospital has a non general acute care unit(s) (e.g. psych or rehab beds) located within the walls of the general acute care hospital, the Medicaid discharges used in this computation may also include those discharges where services were provided within those beds. Once the aggregate EHR incentive amount is determined by the Medicaid agency, the agency will verify/reconcile its computation with the applicable Medicare Intermediary.

The "Medicaid Share", which is applied against the aggregate EHR incentive amount, is essentially the percentage of a hospital's inpatient non-charity care days that are attributable to Medicaid inpatients.

The Medicaid inpatient days will include both in-state and out-of state Medicaid days for the following individuals/enrollees:

- Medicaid fee for service program (includes the MHN enrollees);
  - South Carolina Medicaid MHN: South Carolina Solutions; SCDHHS is in the process of adding two new MHNs with an anticipated target date of January/February 2011.
- Medicaid MCOs;
  - South Carolina Medicaid MCOs: First Choice by Select Health of South Carolina, Unison Health Plan (Name change pending, with a target date of January 1, 2011), Absolute Total Care, BlueChoice HealthPlan of South Carolina
- Medicaid PIHPs;
  - There are no Medicaid PIHPs in South Carolina.
- Medicaid PAHPs;
  - There are no Medicaid PAHPs in South Carolina.
- Medicaid Program of All Inclusive Care for the Elderly (PACE) Programs and;
  - SCDHHS will require the hospitals that contract with the two PACE Programs operating within the state to provide the number of Medicaid inpatient hospital days served during the applicable hospital fiscal year end reporting period that will be used to determine the incentive payments to the qualifying hospitals.
- Medicaid with commercial insurance carrier

The formula is as follows:

$$\frac{\text{Estimated Medicaid inpatient bed days} + \text{Estimated Medicaid MCO inpatient bed days}}{\text{Estimated total inpatient bed days} * \left[ \frac{\text{estimated total charges} - \text{charity care charges}}{\text{estimated total charges}} \right]}$$

Estimated Medicaid days and Medicaid MCO days will be determined using discharge data while estimated total days will be determined using census days. Estimated Medicaid and Medicaid MCO days will include those Medicaid days associated with services provided within the general acute care hospital as well as those days associated with services provided within non general acute care units (i.e.

psych or rehab units) within the walls of the general acute care hospital. Therefore, in order to ensure that the Medicaid Share calculation is not artificially inflated, total inpatient days should include the non general acute care units' (e.g. psych or rehab units) inpatient days as part of total inpatient hospital days. In computing Medicaid inpatient days, the Medicaid agency will not include inpatient days attributable to individuals with respect to whom payment may be made under Medicare Part A or under Medicare Part C (Medicare Advantage Plans). Therefore, no dual eligible days will be included in the numerator of this formula.

The estimated total charges and charity care charges amounts used in the formula must represent inpatient hospital services only and exclude any professional charges associated with the inpatient stay.

Only those days that would count as inpatient bed days for Medicare purposes under section 1886(n)(2)(D) of the Act will be allowed in this calculation unless otherwise noted to account for general acute care hospitals with non general acute care unit(s) (e.g. psych or rehab units).

In South Carolina, all SC general acute care hospitals are eligible to participate in the South Carolina Medicaid Disproportionate Share Payment Program as long as they meet the minimum federal requirements (1% Medicaid utilization rate as well as the OB requirement). Additionally, as part of our Disproportionate Share Hospital (DSH) qualification process, SCDHHS requires each qualifying DSH hospital to supply the necessary data to determine each DSH hospital's Low Income Utilization Rate. One of the components that is required by this formula and obtained from each hospital is its inpatient charity care charges based upon its charity care policy. Therefore, since charity care charges are not separately identified on worksheet S-10, SCDHHS revises the source of its inpatient hospital charity care charges information from schedule S-10 to the hospital's inpatient hospital charity care listing applicable to the hospital fiscal year end reporting period that will be used to determine the incentive payments. The listing will provide the information as reflected on the EH Charity Care Filing Documentation (see Appendix G) and will be obtained from the hospital's accounting and billing systems.

In the event there is simply not sufficient data that would allow the Bureau to estimate the inpatient bed days attributable to Medicaid managed care patients, the statute directs that such figure is deemed to equal zero.

In the event there is simply not sufficient data that would allow the Bureau to estimate the percentage of inpatient bed days that are not charity care, that is  $[(\text{estimated total charges} - \text{charity care charges}) / \text{estimated total charges}]$ , the statute directs that such figure to be deemed to equal one.

SCDHHS may pay children's hospitals and acute care hospitals up to 100% of an aggregate EHR incentive amount provided over a minimum of a 3 year period and a maximum of a 6 year period. Additionally, in any given year, no payments can be made to hospitals after 2016 unless the provider has been paid a payment in the previous year; thus, hospitals receiving a Medicaid incentive payment must receive payments on a consecutive annual basis after the year 2016. Prior to 2016, Medicaid incentive payments to hospitals can be made on a non-consecutive annual basis. EHs will select the number of years over which they would like to receive the incentive payment in the SLR.

In any given payment year, no annual Medicaid EHR payment to a hospital may exceed 50% of the hospital's aggregate EHR incentive amount. Likewise, over a 2 year period, no Medicaid payment to a hospital may exceed 90% of the aggregate EHR incentive amount.

Prior to issuing payment to the EH, the HIT Division will verify that the EH has not received a payment from another state or already received a payment from South Carolina for that payment year.

The HIT Division will initiate an electronic credit adjustment that will be processed by the legacy MMIS system. Each user that creates adjustments in the system will have a unique ID for tracking purposes, and incentives will be tracked with new fund codes. Payments will be made via EFT. As providers are determined eligible to receive payments, their incentive payments will be incorporated into the weekly payment schedule within 45 days of receipt of a "clean" record (e.g. no missing information, verification of all pre-payment data). The HIT Division will notify the provider of the payment via email and hard copy letter. The SLR will submit payment data to the NLR.

Payments under the Medicare and Medicaid EHR Incentive Programs will be treated like all other income. The incentive payment legal authorities do not supersede any state or federal laws requiring wage garnishment or debt recoupment; therefore, if there is a legal basis for the state or federal government to net or recoup debts, such authority will apply to incentive payments, just as it applies to all other income.

#### **Incentive Payment Reassignments to Employers**

EPs have the option of reassigning their incentive payment to an entity with which there is a contractual arrangement allowing the employer or entity to bill and receive payment for the EP's covered professional services. Incentive payments can only be reassigned to a single TIN.

SCDHHS will require providers to enter payment reassignment data into the SLR as South Carolina's MMIS does not house data related to employee-employer relationships.

#### **Incentive Payment Reassignment to an Entity that Promotes the Adoption of Certified EHR Technology**

SCDHHS has established a mechanism to designate entities that promote the adoption of certified EHR technology. CITIA, the sole Regional Extension Center for South Carolina, is the only entity in South Carolina that meets this definition as it is the designated recipient of the Regional Centers Cooperative Agreement and therefore meets the definition of an entity that promotes the adoption of certified EHR technology.

SCDHHS will require that CITIA submit documentation to SCDHHS that ensures that no more than five percent of the Medicaid incentive payment is retained for costs unrelated to EHR technology adoption. CITIA will also be subject to audit. Further, when an EP chooses to assign his/her payment to CITIA, the EP must select this option in the SLR and will receive a message screen that this payment arrangement is voluntary by the EP before the EP may click the button in the SLR that will assign the payment to CITIA. SCDHHS will establish a special payment process outside of the MMIS to accommodate this type of payment reassignment.

## **Denials and Appeals**

The SCDHHS Division of Appeals and Hearings currently has a process for appeals filed by Medicaid providers and beneficiaries when payments or benefits have been denied (see Appendix H for the Medicaid Appeals Regulations). The procedures for appeals may be found in South Carolina Regulations at Chapter 126, Article 1, Subarticle 3. No additional rules processing time or provider notice time is needed as the policies and procedures for the existing process require no modifications to encompass EPs and EHs who appeal the following:

- Denied incentive payments
- Incorrect incentive payment amounts
- Program eligibility determinations (e.g., patient volume, hospital-based EPs)
- Demonstration of adopting, implementing, and upgrading
- Demonstration of meaningful use

Information concerning the appeals process will be available in the provider manual of policies and procedures for the South Carolina Medicaid EHR Incentive Program. EPs and EHs may submit “timely” appeals to the Division of Appeals and Hearings with relevant support documentation. “Timely” is defined as a provider filing an appeal within 30 days of notification of determination of eligibility (pertains to program eligibility, demonstration of adopt/implement/upgrade, and demonstration of meaningful use) or incentive payment receipt. SCDHHS’ notification letters will reference the regulations for appeals. A hearing officer will review the appeal request, and the EP/EH will be notified and a hearing will be scheduled. The HIT Division will compile documentation for the hearing, and any appeal requests will be tracked in the appeals and hearing system maintained by the Division of Appeals and Hearings.

The current SCDHHS appeals process allows for settlement negotiations prior to any hearing. SCDHHS anticipates that these settlement negotiations will be useful for situations where providers are not clear about the requirements for program participation such as EP and EH types, volume requirements, etc.

## Section E: The Audit Strategy

The SCDHHS Bureau of Compliance and Performance Review ensures that Medicaid and other funds are used effectively and in compliance with federal and state regulations. The Bureau is comprised of three divisions: Program Integrity (PI), Audits, and Surveillance and Utilization Review. Existing processes will be expanded to include audits of the EHR Incentive Program. Whereas the HIT Division is responsible for pre-payment monitoring of eligibility and attestation, the Division of Audits is responsible for post payment audits, both targeted and random. This maintains separation of duties and provides checks and balances.

There are three components to the SCDHHS audit strategy related to the EHR incentive program:

1. SCDHHS will avoid making improper payments by ensuring that payments only go to EPs and EHS and payments meet all incentive funding requirements.
2. SCDHHS will ensure meaningful use through a combination of monitoring / validation *before* payments are disbursed and selective audits *after* payments are disbursed.
3. SCDHHS will prevent / identify suspected fraud and abuse through data analysis and selected provider audits.

Suspected fraud or abuse involving EHR incentive payments can be reported through existing means such as the department's fraud hotline and fraud email account. The EHR Incentive Program provider manual will list information on these mechanisms.

SCDHHS has employed several methods in order to reduce provider burden while maintaining integrity and efficacy of the oversight process. SCDHHS intends to send a clear and consistent message to providers through its communication strategy and the tools developed for providers to use in the program. The EHR Incentive Program provider manual and the SLR will provide providers with accessible information on the program to reduce the program's complexity. SCDHHS also intends to dedicate an upcoming summit solely to the South Carolina Medicaid EHR Incentive Program to ensure providers have a clear understanding of what is required to participate in the program. SCDHHS expects this communication with providers will increase providers' understanding of the program, which should in turn decrease abuse and non-compliance with EHR requirements. Further, SCDHHS intends to effectively communicate with CITIA to ensure that CITIA shares accurate information with providers regarding the South Carolina Medicaid EHR Incentive Program. SCDHHS anticipates that CITIA will also be helpful in advising providers to be prepared in the event of an SCDHHS audit of providers participating in the EHR Incentive Program.

## **Methods Used to Avoid or Detect Improper Payments**

SCDHHS will validate eligibility information provided to the NLR plus other provider information. Specifically, the HIT Division will verify information submitted on the NLR and SLR including:

- Provider demographic data including NPI, TIN, service address, group affiliation, etc.
- Provider licensure and exclusion status
- Whether the provider is hospital based- based or is PA-led RHC / FQHC
- The method used to calculate patient volume;

Data sources used to verify certain eligibility components include:

- MMIS
- Provider enrollment files maintained by MCCC
- OIG exclusion list
- Program Integrity State exclusion list
- State licensing boards

In general, eligibility monitoring and validation will be carried out by SCDHHS project coordinators in the HIT Division. All EP attestations will be submitted through the SLR. The Division of Audits will validate patient volumes attested by the providers for a small sample picked at random or upon referral by the HIT Division. The HIT Division will also review payment amount calculations based on funding schedules.

In order to avoid underpayments and/or overpayments, incentive fund calculations will be reviewed by both program management and financial staff. The Division of Audits will periodically monitor incentive payments to identify any duplicate payments and any payments that don't follow funding schedules (these could be underpayments or overpayments.).

Incentive payments will be monitored and reported using the same process as other Medicaid payments using the policies and procedures documented for the MMIS. EHR payments will be processed through the South Carolina MMIS, which provides another guarantee on the validity of provider TINs, and edits and fund codes will be applied in order to separately track EHR payments. Payments will be reported through the CMS-64 financial report and monitored through that process as well as the Statewide Single Audit.

The Division of Audits will conduct an internal audit of agency management controls over the incentive payment eligibility determination and disbursement processes, within 15 months of the disbursements of the first EHR incentive funds.

### **Methods to Ensure Compliance with AIU and Meaningful Use Requirements**

The Regional Extension Center, through the work of CITIA assisting EPs and EHs to meet the requirements for meaningful use, will foster the self-assessment of eligibility and attestation information by EPs before application for the EHR incentive funding is made; this will lower the risk of noncompliance with the EHR incentive payment requirements. This is expected to reduce the number of formal audits required post-payment.

EPs and EHS will use the NLR and SLR to attest to AIU and meaningful use. It is anticipated that existing data sources will be leveraged to verify meaningful use. The planned interface from SCHIEEx to the DSS/SURS will support reporting on meaningful use. SCHIEEx reports demonstrating connection to SCHIEEx compared with EPs applying for an EHR incentive payment may be useful in verifying meaningful use. Similarly, reports on the immunization registry run by SCDHEC may be useful to cross check meaningful use. First Health reports from SureScripts reports showing statistics related to ePrescribing will be leveraged to confirm attestation of meaningful use.

Methods to ensure compliance with AIU and meaningful use include:

- Providers must attest that they have a certified EHR vendor and will be able to submit a copy of that contract if required.
- Providers must attest to AIU before any incentive funds are released.
- Providers must attest to and be able to demonstrate meaningful use, based on the following methodology:
  - Connection to an HIE
  - Submission of data that meets State 1 meaningful use criteria. Demonstration of meaningful use will be monitored through SCHIEEx reports in addition to other external data sources used to verify meaningful use such as SureScripts, SCDHEC, and EHR vendor reports.
- Review and monitoring of AIU and meaningful use will be carried out by SCDHHS project coordinators in the HIT Division.
- SCDHHS Division of Audits will conduct random audits, in order to verify information provided through attestations of AIU and meaningful use.

## **Methods to Identify Improper Payments, Overpayments, Fraud, and Abuse**

To avoid making improper or duplicate payments, the policies and procedures of SCDHHS require checking the NLR prior to authorizing a payment and updating the NLR with payments made. An audit trail will be maintained containing the date/time of NLR files sent and received. As noted, the HIT Division will be responsible for up-front review of provider eligibility and AIU attestations. Once incentive payments have been disbursed, the SCDHHS Division of Audits will identify providers for post-payment audits.

### **Audit Target Selection**

The Division of Audits will conduct both random and targeted audits. Targeted audits are those made on a selective basis, based on the following criteria:

- When there are indications that the EP or EH has reported invalid information. For example:
  - A comparison of the Medicaid patient volume reported by the EP with claims data in the DSS indicate that numbers may be inflated or include CHIP beneficiaries;
  - The EP or EH fails to submit sufficient credible information to support the AIU attestation;
- If a provider becomes the subject of an unrelated program integrity review opened as the result of data mining or complaint about their Medicaid billing practices.
- If sudden drops or spikes in Medicaid claims volume are noted after receiving incentive funds.
- If it is determined that duplicative or excessive payments are received.
- If a provider loses licensure, becomes part of a corporate integrity agreement, is terminated from the Medicaid program, and/or has his or her Medicare privileges revoked.

In addition to targeted audits triggered by the factors listed above, a small number of providers will be selected at random every year for an audit of their program participation. Thus, every EHR provider has a chance of being picked for review. The number of random audits performed will be based upon the total number of EPs and EHs who apply for an EHR incentive payment. Audits may be either desk reviews or on-site.

## **Audit Benchmarks**

At this time, the anticipated number of audits within the first two years of the program is approximately 52: two hospitals and 50 EPs, based on what is currently known about potential EHR adoption rates (see page 65.) This will assure approximately 10% audit coverage of hospitals and 5% coverage for EPs, assuming 20 hospitals and 1,000 EPs adopting, implementing and/or upgrading within the first two years of the program. The providers first selected for audit will be those meeting the target criteria described previously; the remaining providers will be selected at random, using a random number generator, until the benchmark of 52 audits is reached.

Audits will follow existing SCDHHS Internal Audit policies for planning, audit supervision, development for audit findings, and work papers. The number of audits and any sampling methodology used will be determined based on the volume of providers receiving EHR incentive payments.

If an audit identifies an overpayment or improper payment (one made to an ineligible professional or hospital), the amount of the overpayment determined will be recouped from the provider, in accordance with existing provider refund procedures. Repayments can be made either by check or through offsets to the provider's regular Medicaid claim reimbursements. Overpayments will be tracked through the Program Integrity case management system. Any EHR incentive funds recouped from providers will be identified on the CMS 64 in accordance with normal reporting procedures as well as any specific EHR Incentive funding reports. Payments will stop if in any given payment year meaningful use is not met.

If an audit finds indications of fraud, a referral will be made to the South Carolina Attorney General's Office, Medicaid Fraud Control Unit (MFCU), in accordance with existing SCDHHS policies and the MOU with the MFCU.

Audits of EHR incentive fund providers will be carried out by the Division of Audits because of the nature of the compliance requirements involved. Other processes, such as the overpayment tracking process, will be incorporated into those used by the Division of Program Integrity. SCDHHS does not plan to use external contractors for post-payment audits of EHR incentive funds. This will be done internally with the anticipation of adding new audit staff.

The Division of Audits will develop a detailed audit protocol designed to meet the specific objectives of the audit function described in this section. This protocol will address the entire audit process, and will include:

- Steps to validate Medicaid and needy patient volume including claims data analysis and possible on-site verification of the provider's patient accounts;
- Steps to verify adoption, implementation and upgrade, which could include a checklist and possible on-site review of the provider's use of EHR technology; obtaining documentation such

as proof of purchase, vendor agreements, etc.; review of staff training; and determination that the EHR technology used is certified.

- Steps to verify that payments do not exceed 85% and to verify that EPs are responsible for 15% of NAAC. Validating the costs claimed by the EP in implementing or upgrading an EHR system could include a review of the provider's financial records and other documentation supporting the provider costs for the acquisition, adoption, and installation of the EHR technology.
- Steps to provide verification and support when the HIT management staff determine that a provider may not be meeting meaningful use criteria, and a recoupment of funds is required.

Audit findings and conclusion will be reported in regular management letters to the HIT Division and agency executive staff.

An internal audit of the HIT Division is also planned as a mechanism to ensure that appropriate management controls are in place and are adhered to. Such an audit will make recommendations to SCDHHS HIT management for improvement in internal controls if warranted.

## **Conclusion**

SCDHHS looks forward to beginning its South Carolina Medicaid EHR Incentive Program and making payments starting in January 2011. This program will be a tremendous aid to providers in South Carolina. SCDHHS expects that the program will evolve over time, and as such, this SMHP will be treated as a “living” document and receive regular updates. Above all, it remains SCDHHS’ goal to assist providers in becoming adopters and meaningful users of certified EHR technology.

# Appendix A: Detailed Environmental Scan Executive Summary

## South Carolina Environmental Scan December 2010

### Introduction

We conducted a cross sectional survey of hospitals and primary care practices to ascertain their:

- Knowledge of federal initiatives, incentives, penalties...
- Current EMR/EHR adoption & functionality
- HIE readiness
- Plans for adoption – financial, staffing, training...
- Anticipated costs & related expectations
- Collection of quality indicators

Mailing addresses for 104 licensed hospitals were obtained from the SCDHEC, which maintains the licensure files for all hospitals in South Carolina. Physician practice addresses were obtained through the Office of Research and Statistics using the Medicaid provider file linked to the NPI, yielding 1,495 practice networks. The impetus of the survey was to enrich our understanding of HIT adoption issues at the organization-level and not the physician-level, therefore only one survey was sent to each practice network. Said differently, if an organization owned 40 physician practices, only one survey for was mailed on behalf of the 40 practices.

Surveys were mailed in December 2009. Only one paper mailing was conducted. The SC Office of Rural Health, SC Hospital Association, SC Primary Health Care Association, and the state chapter of the American Academy of Pediatrics sent email messages to encourage their members and constituents to respond to the survey. Institution Review Board approval was obtained from the University of South Carolina. Analysis was conducted by researchers at the SC Rural Health Research Center in the Arnold School of Public Health at the same University.

### Description of Respondents

*Hospitals.* With a response rate of 40.4% (n=42), most respondents identified themselves as acute care hospitals (92.7%) with three of the state's five Critical Access Hospitals responding.

Surveys were mailed to 104 hospitals registered on the SCDHEC Hospital Licensure File.

*Practices.* Physician practices responded at a rate of 25.2%, (n=377) reflecting 1092 practice sites. The response rate is a low estimate due to challenges in identifying the practice type in the merged Medicaid claims-NPI database. The research team reserved numerous calls from specialty providers (e.g., oncologists, pulmonologists) who were not targeted for the survey. Accounting for these erroneous inclusions, the research team estimates an actual response rate of 35% to 38%. Most

practices were single-specialty (44.9%) or multi-specialty (42.6%). Noteworthy practice types in the distribution of responses include Rural Health Clinics (25.6%) and Federal Qualified Health Centers (8.6%).

### **Internet Access**

In spite of the rurality of our state, virtually all healthcare providers have internet access. Hospitals are more likely to use fiber optic cable (50.0%) and T-1 lines (28.6%) Physician practices are more likely to use T-1 lines (29.9%), fiber optic cable (19.9%), and DSL (17.7%).

### **Knowledge of Federal Initiatives, Incentives and Penalties**

More hospital and physician practice leaders were knowledgeable about HIT policies and programs. Generally speaking, the most informed staff were the business managers in both hospitals and practices. The majority of business managers knew about ARRA (47.62% in hospitals; 50.73% in practices) and HITECH (38.10% in hospitals; 43.13% in practices). Knowledge of incentives (40.48% in hospitals; 47.99% in practices) and penalties (40.48% in hospitals; 47.71% in practices) for EMR adoption were comparable for hospitals and practices. Knowledge of the regional extension center initiative was less diffused. Only 14.29% of the businesses managers in hospitals knew of the program, while nearly a quarter (24.82%) of business managers in practices knew of the program. Finally, the knowledge of meaningful use criteria was also at above a third (35.71% for hospitals; 39.84% in practices). The general gap between the different management positions was pronounced and a need for educating the CEOs and medical staff still seems necessary.

### **Status of Electronic Medical Record Adoption**

*Storage of Patient Information.* More than 57.1% and 48.7% of hospitals and physician practices reported EMR adoption; however, most store patient data in multiple forms. Another 21.43% of hospitals and 14.38% of practices also store paper records. Less than a quarter of hospitals (19.05%) and practices (28.02%) reports using practice management programs, with over half of practices (48.72%) and hospitals (57.14%) indicating they were integrated with their EMR.

*Degree of EMR Implementation.* When asked where they were on the continuum of EMR adoption, a normal distribution did not emerge. For hospitals, over a third (36.4%) were actively making plans for EMR adoption with another third either not considering, or considering but not making plans (30.1%). Only 12.1% reported they were implementing an EMR and it was working well. Another 21.2% were at the implementation phase but it was not working well. For physician practices, the largest proportion of respondents said they were making plans and preparing for purchasing an EMR (36.1%) or they were considering, but had no specific plans (26.9%).

*Financial Preparations for Adoption or Upgrades.* Physician practices have a higher degree of uncertainty about how to financially obtain an EMR, as evidenced by 12.5% reporting they are unsure about how to pay for it. Most hospitals (39.5%) reported they will outright purchase equipment and

software, compared to only 19.17% of practices. Approximately 30% of both, hospitals and practices, will obtain loans or apply for CMS incentives.

*EMR Incentive Applications.* It appears hospitals are more likely to pursue an EMR incentive from Medicaid (33.33% vs. 29.21%) and Medicare (47.62 vs. 45.70%). Over a quarter (24.36%) of practices said they would not apply for an incentive. There is, however a good deal of uncertainty from providers as to whether or not they will pursue a CMS incentive for EMR implementation. Nearly a quarter of hospitals (23.81%) and practices (16.94%) said they were unsure at the time of the survey.

*HIE Participation.* As anticipated, most healthcare providers do not participate in HIE. Nearly 37% of hospitals and 29% of physician practices participate in HIE. Unfortunately, less than half of those respondents said they actually exchange patient data.

*Training Needs.* The most frequently reported training needs were workflow redesign (61.9% hospitals; 61.8% practices), federal incentives (57.1% of hospitals; 61.6% of practices), and meaningful use criteria (59.5% hospitals; 59.2% practices). Half of the hospitals requested training on other funding opportunities and electronic clinical documentation. Over half of the practices requested training on other funding opportunities, NCQA standards, and information exchange.

### **Assessment of EMR Users**

*CCHIT Certification.* Most hospitals (72.22%) and physician practices (67.55%) with EMRs reported having certification from the Certification Commission for Health Information Technology (CCHIT). There was similar agreement when asked if their EMRs met their patient care needs with 65.0% of hospitals and 89.5% of practices providing an affirmative response.

*Perceived Changes in Productivity.* The perceived impact of productivity was varied. Most hospitals (58.5%) reported they experienced minor improvements and minor decreases in productivity during the first 3 to 6 months of EMR implementation. Over a quarter (30.4%) of practices reported major decreases in productivity during the time period, contrasting sharply with only 18.9% of hospitals. The disparity does not continue as greatly within a year of implementation with 52.5% of hospitals and 41.9% of practices reporting either minor or major improvements in productivity. At three to five years out, 72.9% of hospitals and 58.4% of practices observed productivity improvements, continuing the marketed disparity.

### **Assessment of Facilities without EMRs**

*Implementation Barriers.* When asked about barriers to EMR implementation, virtually everyone attributed costs, both initial and recurring, as an obstacle. Staff expertise with EMRs (37.5% of hospitals; 62.2% of practices) and productivity disruption (43.48% of hospitals; 79.41% of practices) were frequently cited as barriers to implementation. Lack of EMR interoperability with other systems was reported by most hospitals (62.5%). Uncertainty of EMR products (67.32%) was a unique concern of practices.

*EMR Investment Timeline.* Two-thirds (66.6%) of hospitals and nearly three quarters (71.6%) of practices without an EMR intend to purchase within two years. A quarter (25.0% hospitals; 20.38% practices) are unsure of their timeline.

### **EMR Adoption Characteristics**

Models were run to determine if practices and hospitals that possessed certain characteristics were more likely to have adopted, or plan to adopt EMRs in the next two years. Academic affiliation and internet access were the only indicators determined to be significant. Organizations that lacked an academic affiliation or used dial-up services for an internet connection, or reported no internet connection, were less likely to have adopted or express plans for adoption in the next 24 months.

### **Policy Recommendations**

*Fill The Knowledge Gap.* Knowledge deficits about ARRA, incentives, and penalties for EMR adoption are pronounced, especially among primary care providers. It is imperative that South Carolina leverage the sources of technical assistance respected by the primary care community to educate them on these important issues. Notable providers of this type of education should include, but not be limited to:

- Area Health Education Consortium (AHEC)
- SC Hospital Association (SCHA)
- SC Medical Association (SCMA)
- SC Academy of Family Practice
- SC Office of Rural Health (SCORH)
- SC Primary Health Care Association (SCPHCA)
- Carolinas Center for Medical Excellence (CCME)

Fortunately, most of the organizations listed above are partners in the implementation of the state's Regional Extension Center (REC) grant. Once funded, the partners are poised to respond to the needs illuminated through the environmental scan.

*Technical Needs* – While numerous concerns about EMR adoption and information sharing were expressed, achieving meaningful use and workflow redesign were among the most prevalent. While education on these issues is key, addressing these concerns will require a unique level of technical assistance for experts inside and external to the healthcare industry. Through the REC grant process engineers from Clemson University and practice management experts from CCME will be engaged to provide practice-level technical assistance on the workflow redesign. Achieving meaningful use, however, will require learning laboratories that facilitate the sharing of lessons learned beyond what can be communicated from governmental leaders. Our state is committed to facilitating these types of opportunities. As an example, most recently the state responded to a CHIPRA grant that creates a 'think tank' of pediatricians who can test, evaluate, and recommend ways to achieve meaningful use for their patient population.

*Financial Preparation.* The most significant barrier to EMR adoption and information sharing reported by respondents was the cost, both initial and recurring. When asked additional contextual questions, it is clear the majority of primary care providers are not financially prepared for the investment. There are resources, however, that can be leveraged. For the past 10 years, the SC Office of Rural Health has managed a revolving loan fund for rural providers the purpose of capital improvements to their organizations. The same organization is partnering with the state to submit an application to JEDA (Jobs Economic Development Authority) to create a loan fund program for all providers (rural and urban) interested in obtaining loans for the purchase or upgrade of their EMRs.

### **Conclusion**

While HIT adoption has been historically low in South Carolina, there appears to be enthusiasm for EMR adoption and HIE participation. Hospitals appear to be poised to serve in leadership roles at the local-level, given the depth of their capacity, infrastructure, and understanding of policies and regulations. Creating hospital-practice partnerships from which experiential learning can occur will be key in statewide-HIE deployment.

**Weighted percentages all Questions**

Q1	Practice Description		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices
		Single-specialty practice	193	491	1092	44.96%
		Multi-specialty practice	48	465	1092	42.58%
		Practice-owned office-based practice	40	63	1092	5.77%
		Federally Qualified Health Center	16	94	1092	8.61%
		Rural Health Clinic	41	280	1092	25.64%
		Individual Primary Care Practice	70	247	1092	22.62%
		Small Group Primary Care Practice	70	296	1092	27.11%
Other	23	28	1092	2.56%		
Hospital Description		Hospital - Frequency	Hospital - Total Frequency	% Hospitals		
	1886(d) IPPS	0	42	0.00%		
	CAH	3	42	7.14%		
	Children's Hospital	28	42	66.67%		
	Acute Care Hospital	11	42	26.19%		
	Other	0	42	0.00%		

Q6	Internet		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		Do Not Have Internet	4	4	1092	0.37%	0	42	0.00%
		Dial Up	6	6	1092	0.55%	0	42	0.00%
		DSL	142	194	1092	17.77%	0	42	0.00%
		Cable	69	82	1092	7.51%	0	42	0.00%
		Satellite	2	3	1092	0.27%	0	42	0.00%
		T-1	84	326	1092	29.85%	12	42	28.57%
		Fiber Optic Cable	39	218	1092	19.96%	21	42	50.00%
		Fi-OS	1	1	1092	0.09%	0	42	0.00%
		Other	10	232	1092	21.25%	7	42	16.67%

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		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
Knowledge	ARRA - Business Manager	121	554	1092	50.73%	20	42	47.62%
	ARRA - CEO	36	124	1092	11.36%	10	42	23.81%
	ARRA - Medical Staff	35	47	1092	4.30%	2	42	4.76%
	HITECH - Business Manager	100	471	1092	43.13%	16	42	38.10%
	HITECH - CEO	80	194	1092	17.77%	12	42	28.57%
	HITECH - Medical Staff	0	0	1092	0.00%	0	42	0.00%
	M.U - Business Manager	91	435	1092	39.84%	15	42	35.71%
	M.U - CEO	40	92	1092	8.42%	7	42	16.67%
	M.U - Medical Staff	32	79	1092	7.23%	3	42	7.14%
	Incentives - Business Manager	148	524	1092	47.99%	17	42	40.48%
	Incentives - CEO	41	213	1092	19.51%	10	42	23.81%
	Incentives - Medical Staff	41	48	1092	4.40%	4	42	9.52%
	Penalties - Business Manager	133	521	1092	47.71%	17	42	40.48%
	Penalties - CEO	42	203	1092	18.59%	6	42	14.29%
	Penalties - Medical Staff	40	48	1092	4.40%	6	42	14.29%
	REC - Business Manager	41	271	1092	24.82%	6	42	14.29%
	REC - CEO	28	69	1092	6.32%	9	42	21.43%
	REC - Medical Staff	14	22	1092	2.01%	0	42	0.00%

Q8	Patient Information		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		EMR	144	532	1092	48.72%	24	42	57.14%
		Other	5	79	1092	7.23%	1	42	2.38%
		Practice Mgmt System	106	306	1092	28.02%	8	42	19.05%
		Paper	110	157	1092	14.38%	9	42	21.43%

Q8	Patient Information		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		1	180	309	1092	28.30%	17	42	40.48%
		2	157	449	1092	41.12%	14	42	33.33%
		3	27	306	1092	28.02%	11	42	26.19%

Q8	Patient Information		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		EMR Only	61	131	1092	12.00%	8	42	19.05%
		PM Only	9	21	1092	1.92%	0	42	0.00%
		Paper Only	110	157	1092	14.38%	9	42	21.43%
		Paper + PM	99	289	1092	26.47%	8	42	19.05%
		Paper + EMR	7	10	1092	0.92%	2	42	4.76%
		PM + EMR	51	150	1092	13.74%	4	42	9.52%
		All	27	306	1092	28.02%	11	42	26.19%

Q9	Incentive		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		Medicaid	26	52	1092	4.76%	1	42	2.38%
		Medicare	37	228	1092	20.88%	6	42	14.29%
		Medicaid and Medicare	34	267	1092	24.45%	13	42	30.95%
		None	146	262	1092	23.99%	11	42	26.19%
		Unsure	104	183	1092	16.76%	9	42	21.43%

Q9	Incentive		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		Medicaid	26	52	1092	4.76%	1	42	2.38%
		Medicare	71	495	1092	45.33%	19	42	45.24%
		No	147	265	1092	24.27%	11	42	26.19%
		Unsure	106	185	1092	16.94%	10	42	23.81%

Q10	Practice Management System		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		EMR	135	576	1092	52.75%	15	42	35.71%
		Don't Know	19	21	1092	1.92%	2	42	4.76%
		None	29	37	1092	3.39%	8	42	19.05%
		Stand Alone System	176	427	1092	39.10%	16	42	38.10%

Q11	Degree of Implementation		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		Not considering	60	70	1092	6.41%	4	42	9.52%
		Considering but no specific plans	102	169	1092	15.48%	6	42	14.29%
		Making plans and preparing	45	227	1092	20.79%	12	42	28.57%
		Purchased and beginning implementation	28	96	1092	8.79%	7	42	16.67%
		Implemented, but not working as well as expected	27	67	1092	6.14%	4	42	9.52%
		Implemented and works well	100	437	1092	40.02%	8	42	19.05%

**HAVE EMR**

**Total Weighted Frequency of Physicians with EMR**      **600**

**Total Frequency of Hospitals with EMR**                      **19**

		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals	
Q12	CCHIT	Don't Know	56	122	600	20.33%	3	19	15.79%
		No	9	73	600	12.17%	2	19	10.53%
		Yes	91	406	600	67.67%	13	19	68.42%

		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals	
Q13	HIE	Participate and exchange	17	107	600	17.83%	3	19	15.79%
		Participate and DO NOT exchange	8	70	600	11.67%	4	19	21.05%
		Do Not Participate	121	407	600	67.83%	12	19	63.16%

		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals	
Q16	EMR meeting patient care needs	Acceptable	126	493	600	82.17%	13	19	68.42%
		Not Acceptable	14	33	600	5.50%	5	19	26.32%
		Unsure	15	25	600	4.17%	2	19	10.53%

		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals	
Q20	How will pay for upgrade/ install	CMS	68	272	600	45.33%	11	19	57.89%
		Loan	45	78	600	13.00%	3	19	15.79%
		Outright Purchase	41	189	600	31.50%	15	19	78.95%
		Practice Subsidy	4	17	600	2.83%	0	19	0.00%
		Retire	6	7	600	1.17%	0	19	0.00%
		Sell	9	13	600	2.17%	0	19	0.00%
		Unsure	89	123	600	20.50%	6	19	31.58%
		Will not Upgrade/ Install	79	287	600	47.83%	3	19	15.79%

Q21

Productivity Impact 3-6 months		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
Productivity Impact 3-6 months	Don't Know	76	111	600	18.50%	6	19	31.58%
	Major Decrease	104	283	600	47.17%	7	19	36.84%
	Major Improvement	30	42	600	7.00%	1	19	5.26%
	Minor Decrease	46	353	600	58.83%	17	19	89.47%
	Minor Improvement	38	107	600	17.83%	5	19	26.32%
	No Change	25	34	600	5.67%	1	19	5.26%
Productivity Impact 1 year		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
Productivity Impact 1 year	Don't Know	76	111	600	18.50%	6	19	31.58%
	Major Decrease	104	283	600	47.17%	7	19	36.84%
	Major Improvement	30	42	600	7.00%	1	19	5.26%
	Minor Decrease	46	353	600	58.83%	17	19	89.47%
	Minor Improvement	38	107	600	17.83%	5	19	26.32%
	No Change	25	34	600	5.67%	1	19	5.26%
Productivity Impact 3-5 years		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
Productivity Impact 3-5 years	Don't Know	76	111	600	18.50%	6	19	31.58%
	Major Decrease	104	283	600	47.17%	7	19	36.84%
	Major Improvement	30	42	600	7.00%	1	19	5.26%
	Minor Decrease	46	353	600	58.83%	17	19	89.47%
	Minor Improvement	38	107	600	17.83%	5	19	26.32%
	No Change	25	34	600	5.67%	1	19	5.26%

**DO NOT HAVE EMR**

**Total Weighted Frequency of Physicians without EMR**      **466**

**Total Frequency of Hospitals without EMR**      **22**

Q22	when will invest		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		No Plans	35	38	466	8.15%	2	22	9.09%
		Unsure	61	97	466	20.82%	6	22	27.27%
		w/in 1 year	50	199	466	42.70%	5	22	22.73%
		w/in 2 years	63	142	466	30.47%	11	22	50.00%

Initial Cost Barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
	Yes	185	417	466	89.48%	23	22	104.55%
	No	9	31	466	6.65%	0	22	0.00%
	Unsure	8	9	466	1.93%	2	22	9.09%

Recurring Cost Barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
	Yes	153	384	466	82.40%	20	22	90.91%
	No	19	32	466	6.87%	0	22	0.00%
	Unsure	20	27	466	5.79%	5	22	22.73%

Unsure of which system to purchase barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
	Yes	125	276	466	59.23%	8	22	36.36%
	No	40	105	466	22.53%	11	22	50.00%
	Unsure	16	29	466	6.22%	4	22	18.18%

No product to meet needs barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
	Yes	25	45	466	9.66%	2	22	9.09%
	No	76	154	466	33.05%	13	22	59.09%
	Unsure	42	60	466	12.88%	7	22	31.82%

Q23	Staff expertise with EMR barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		Yes	96	270	466	57.94%	9	22	40.91%
		No	65	132	466	28.33%	11	22	50.00%
		Unsure	20	32	466	6.87%	4	22	18.18%

Staff expertise with computers barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
	Yes	55	135	466	28.97%	4	22	18.18%
	No	99	190	466	40.77%	16	22	72.73%
	Unsure	14	27	466	5.79%	5	22	22.73%

disruption to productivity barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
	Yes	135	351	466	75.32%	10	22	45.45%
	No	35	57	466	12.23%	8	22	36.36%
	Unsure	19	34	466	7.30%	5	22	22.73%

interoperability barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
	Yes	69	136	466	29.18%	15	22	68.18%
	No	57	131	466	28.11%	5	22	22.73%
	Unsure	46	86	466	18.45%	4	22	18.18%

HIPAA compliance standards barrier		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
	Yes	43	88	466	18.88%	3	22	13.64%
	No	93	195	466	41.85%	18	22	81.82%
	Unsure	36	69	466	14.81%	3	22	13.64%

**EVERYONE**

Q28	Training Needs		Practice - Frequency	Practice - Weighted Frequency	Total Weighted Frequency	% Practices	Hospital - Frequency	Hospital - Total Frequency	% Hospitals
		Computer Literacy	104	461	1092	42.22%	18	42	42.86%
		NCQA Standards	180	614	1092	56.23%	17	42	40.48%
		Electronic Clinical Documentation	164	520	1092	47.62%	21	42	50.00%
		Workflow Design	201	675	1092	61.81%	26	42	61.90%
		Information Exchange	162	584	1092	53.48%	19	42	45.24%
		Federal Incentives	214	673	1092	61.63%	24	42	57.14%
		Other funding	187	649	1092	59.43%	21	42	50.00%
		Meaningful Use Criteria	176	646	1092	59.16%	25	42	59.52%

## Data results for Primary Care Practices

### Electronic Clinical Documentation –provider practices

	Fully Implemented		Beginning Implementation		Have Resources for Implementation Next Year		Do Not Have Resources but Considering Implementation		Not In Place and not Considering Implementation		Unsure	
	n (weighted n)	% Practices	n (weighted n)	% Practices	n (weighted n)	% Practices	n (weighted n)	% Practices	n (weighted n)	% Practices	n (weighted n)	% Practices
Patient Demographics	132 (417)	91.65%	14 (33)	7.25%	4 (4)	0.88%	0	0.00%	1 (1)	0.22%	0	0.00%
Physician Notes	117 (351)	77.48%	20 (83)	18.32%	11 (17)	3.75%	0	0.00%	2 (2)	0.44%	0	0.00%
Nurse Notes	115 (347)	76.77%	21 (86)	19.03%	11 (17)	3.76%	0	0.00%	2 (2)	0.44%	0	0.00%
Problem Lists	115 (344)	75.94%	20 (87)	19.21%	11 (17)	3.75%	3 (4)	0.88%	1 (1)	0.22%	0	0.00%
Medication Lists	120 (355)	78.02%	20 (83)	18.24%	10 (16)	3.52%	0	0.00%	1 (1)	0.22%	0	0.00%
Discharge Summaries	93 (241)	56.57%	21 (85)	19.95%	9 (76)	17.84%	3 (8)	1.88%	8 (9)	2.11%	5 (7)	1.64%
Advanced Directives (e.g. DNR)	67 (186)	45.04%	13 (67)	16.22%	12 (81)	19.61%	9 (31)	7.51%	12 (14)	3.39%	18 (34)	8.23%

### Results Viewing- provider practices

	Fully Implemented		Beginning Implementation		Have Resources for Implementation Next Year		Do Not Have Resources but Considering Implementation		Not In Place and not Considering Implementation		Unsure	
	n (weighted n)	% Practices	n (weighted n)	% Practices	n (weighted n)	% Practices	n (weighted n)	% Practices	n (weighted n)	% Practices	n (weighted n)	% Practices
Lab Reports	106 (285)	63.33%	22 (77)	17.11%	12 (14)	3.11%	5 (71)	15.78%	2 (2)	0.44%	1 (1)	0.22%
Radiology Reports	93 (248)	55.48%	24 (94)	21.03%	12 (18)	4.03%	7 (14)	3.13%	7 (68)	15.21%	4 (5)	1.12%
Radiology Images	55 (174)	40.37%	19 (81)	18.79%	17 (32)	7.43%	13 (46)	10.67%	26 (89)	20.65%	8 (9)	2.08%
Diagnostic Test Results (e.g., EKG report, Echo report)	87 (235)	52.81%	20 (76)	17.08%	12 (20)	4.49%	11 (30)	6.74%	9 (68)	15.28%	7 (16)	3.60%
Diagnostic Test Images (e.g., EKG tracing)	80 (211)	47.96%	20 (78)	17.73%	9 (17)	3.86%	14 (33)	7.50%	10 (82)	18.64%	10 (19)	4.32%
Consultant Reports	87 (228)	55.34%	16 (74)	17.96%	12 (18)	4.37%	10 (80)	19.42%	4 (4)	0.97%	7 (8)	1.94%

### Computerized Provider Order Entry- provider practices

	Fully Implemented		Beginning Implementation		Have Resources for Implementation Next Year		Do Not Have Resources but Considering Implementation		Not In Place and not Considering Implementation		Unsure	
	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices
Laboratory Tests	91 (188)	41.59%	20 (138)	30.53%	16 (21)	4.65%	9 (85)	18.81%	10 (17)	3.96%	2 (3)	0.66%
Radiology Tests	81 (164)	37.19%	17 (133)	30.16%	14 (19)	4.31%	12 (37)	8.39%	15 (82)	18.59%	5 (6)	1.36%
Medications	106 (266)	59.24%	15 (76)	16.93%	12 (22)	4.90%	8 (75)	16.70%	6 (7)	1.56%	2 (3)	0.67%
Consultation Requests	81 (224)	50.56%	16 (72)	16.25%	14 (19)	4.29%	13 (88)	19.87%	12 (19)	4.29%	10 (21)	4.74%
Nursing Orders	88 (207)	46.73%	15 (111)	25.06%	13 (21)	4.74%	12 (81)	18.28%	11 (14)	3.16%	7 (9)	2.03%

### Decision Support- provider practices

	Fully Implemented		Beginning Implementation		Have Resources for Implementation Next Year		Do Not Have Resources but Considering Implementation		Not In Place and not Considering Implementation		Unsure	
	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices
Clinical Guidelines (e.g., Beta blockers, post-MI, ASA in CAD)	52 (131)	29.57%	20 (130)	29.35%	15 (21)	4.74%	18 (91)	20.54%	10 (14)	3.16%	27 (56)	12.64%
Clinical Reminders (e.g., pneumovax)	64 (145)	32.73%	20 (135)	30.47%	20 (35)	7.90%	12 (81)	18.28%	9 (13)	2.94%	19 (34)	7.68%
Drug Allergy Alerts	101 (260)	57.91%	17 (82)	18.26%	12 (18)	4.01%	5 (65)	14.48%	3 (3)	0.67%	10 (21)	4.68%
Drug-Drug Interaction Alerts	93 (249)	55.58%	13 (67)	14.96%	12 (18)	4.02%	9 (77)	17.19%	7 (11)	2.46%	13 (26)	5.80%
Drug-Lab Interaction Alerts	60 (115)	26.08%	13 (67)	15.19%	11 (17)	3.86%	14 (95)	21.54%	14 (62)	14.06%	32 (85)	19.27%
Drug Dosing Support (e.g., renal dose guidance)	63 (118)	26.40%	13 (69)	15.44%	11 (18)	4.03%	13 (88)	19.69%	13 (62)	13.87%	33 (92)	20.58%

## Other Functionalities- provider practices

	Fully Implemented		Beginning Implementation		Have Resources for Implementation Next Year		Do Not Have Resources but Considering Implementation		Not In Place and not Considering Implementation		Unsure	
	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices	n (weighted n)	Percent of Practices
Telemedicine	8 (12)	2.89%	14 (162)	39.04%	7 (12)	2.89%	16 (55)	13.25%	61 (88)	21.21%	29 (86)	20.72%
Physician Use of Personal Data Assistant	31 (37)	6.74%	11 (67)	12.20%	9 (152)	27.69%	14 (88)	16.03%	36 (76)	13.84%	34 (129)	23.50%
Internal messaging	92 (288)	70.07%	13 (63)	15.33%	11 (12)	2.92%	4 (14)	3.41%	10 (12)	2.92%	8 (22)	5.35%
Patient Registries (e.g., Immunizations)	64 (156)	38.61%	18 (47)	11.63%	13 (19)	4.70%	10 (91)	22.53%	11 (12)	2.97%	19 (79)	19.55%
Reporting Quality Measures	40 (126)	31.11%	15 (156)	38.52%	16 (23)	5.68%	20 (31)	7.65%	17 (22)	5.43%	28 (47)	11.61%
Discharge Planning	29 (68)	17.44%	9 (115)	29.49%	11 (23)	5.90%	9 (14)	3.59%	29 (49)	12.56%	40 (121)	31.03%

## Data results for hospitals (pages 96-100)

### Electronic Clinical Documentation - hospitals

	Fully Implemented	Beginning Implementation	Have Resources for Implementation Next Year	Do Not Have Resources but Considering Implementation	Not In Place and not Considering Implementation	Unsure
	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)
Patient Demographics	89.47% (17)	10.52% (2)	0.00%	0.00%	0.00%	0.00%
Physician Notes	16.67% (3)	27.78% (5)	22.22% (4)	22.22% (4)	5.56% (1)	5.56% (1)
Nurse Notes	68.42% (13)	21.05% (4)	0.00%	10.53% (2)	0.00%	0.00%
Problem Lists	35.29% (6)	23.53% (4)	11.76% (2)	17.65% (3)	0.00%	11.76% (2)
Medication Lists	72.22% (13)	11.11% (2)	5.56% (1)	11.11% (2)	0.00%	0.00%
Discharge Summaries	83.33% (15)	11.11% (2)	0.00%	5.56% (1)	0.00%	0.00%
Advanced Directives (e.g. DNR)	50% (9)	16.67% (3)	0.00%	22.22% (4)	5.56% (1)	5.56% (1)

## Results Viewing- hospitals

	Fully Implemented	Beginning Implementation	Have Resources for Implementation Next Year	Do Not Have Resources but Considering Implementation	Not In Place and not Considering Implementation	Unsure
	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)
Lab Reports	94.74% (18)	5.26% (1)	0.00%	0.00%	0.00%	0.00%
Radiology Reports	94.74% (18)	5.26% (1)	0.00%	0.00%	0.00%	0.00%
Radiology Images	94.74% (18)	5.26% (1)	0.00%	0.00%	0.00%	0.00%
Diagnostic Test Results (e.g., EKG report, Echo report)	78.95% (15)	10.53% (2)	0.00%	5.26% (1)	5.26% (1)	0.00%
Diagnostic Test Images (e.g., EKG tracing)	73.68% (14)	15.79% (3)	0.00%	5.26% (1)	5.26% (1)	0.00%
Consultant Reports	57.90% (11)	21.05% (4)	5.26% (1)	5.26% (1)	5.26% (1)	5.26% (1)

## Computerized Provider Order Entry- hospitals

	Fully Implemented	Beginning Implementation	Have Resources for Implementation Next Year	Do Not Have Resources but Considering Implementation	Not In Place and not Considering Implementation	Unsure
	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)
Laboratory Tests	36.84% (7)	21.05% (4)	15.79% (3)	26.32% (5)	0.00%	0.00%
Radiology Tests	36.84% (7)	21.05% (4)	15.79% (3)	26.32% (5)	0.00%	0.00%
Medications	31.58% (6)	26.32% (5)	15.79% (3)	26.32% (5)	0.00%	0.00%
Consultation Requests	21.05% (4)	31.58% (6)	15.79% (3)	26.32% (5)	0.00%	5.26% (1)
Nursing Orders	36.84% (7)	21.05% (4)	10.53% (2)	26.32% (5)	5.26% (1)	0.00%

## Decision Support - hospitals

	Fully Implemented	Beginning Implementation	Have Resources for Implementation Next Year	Do Not Have Resources but Considering Implementation	Not In Place and not Considering Implementation	Unsure
	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)
Clinical Guidelines (e.g., Beta blockers, post-MI, ASA in CAD)	21.05% (4)	26.32% (5)	21.05% (4)	26.32% (5)	0.00%	5.26% (1)
Clinical Reminders (e.g., pneumovax)	36.84% (7)	26.32% (5)	0.00%	31.58% (6)	0.00%	5.26% (1)
Drug Allergy Alerts	73.68% (14)	21.05% (4)	0.00%	5.26% (1)	0.00%	0.00%
Drug-Drug Interaction Alerts	68.42% (13)	15.79% (3)	0.00%	10.53% (2)	0.00%	5.26% (1)
Drug-Lab Interaction Alerts	52.63% (10)	15.79% (3)	0.00%	26.32% (5)	0.00%	5.26% (1)
Drug Dosing Support (e.g., renal dose guidance)	47.37% (9)	21.05% (4)	0.00%	26.32% (5)	0.00%	5.26% (1)

## Other Functionalities -hospitals

	Fully Implemented	Beginning Implementation	Have Resources for Implementation Next Year	Do Not Have Resources but Considering Implementation	Not In Place and not Considering Implementation	Unsure
	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)	Percent of Hospitals (n)
Telemedicine	11.11% (2)	50.00% (9)	5.56% (1)	16.67% (3)	16.67% (3)	0.00%
Physician Use of Personal Data Assistant	27.78% (5)	16.67% (3)	5.56% (1)	22.22% (4)	11.11% (2)	16.67% (3)
Internal messaging	52.94% (9)	17.65% (3)	0.00%	17.65% (3)	11.77% (2)	0.00%
Patient Registries (e.g., Immunizations)	33.33% (6)	16.67% (3)	11.11% (2)	27.78% (5)	0.00%	11.11% (2)
Reporting Quality Measures	58.82% (10)	17.65% (3)	0.00%	17.65% (3)	0.00%	5.88% (1)
Discharge Planning	50.00% (8)	31.25% (5)	0.00%	12.50% (2)	0.00%	6.25% (1)

## Low Readiness for HITECH: Findings from the Health Information Exchange Cooperative Agreement Environmental Scan in South Carolina For Hospitals

### Background

In the fall of 2009, the South Carolina Department of Health and Human Services (SCDHHS) was awarded the State Health Information Exchange Cooperative Agreement Program, an initiative of the Health Information Technology for Economic and Clinic Health (HITECH) Act. As a part of statewide strategic and operation planning, we conducted a cross sectional survey of hospitals to ascertain their:

- Knowledge of federal initiatives, incentives, and penalties for HIT adoption
- Current EMR adoption and functionality
- HIE readiness
- Plans for EMR adoption
- Anticipated costs and impact on productivity
- Ability to collect CMS quality indicators

### Description of Respondents

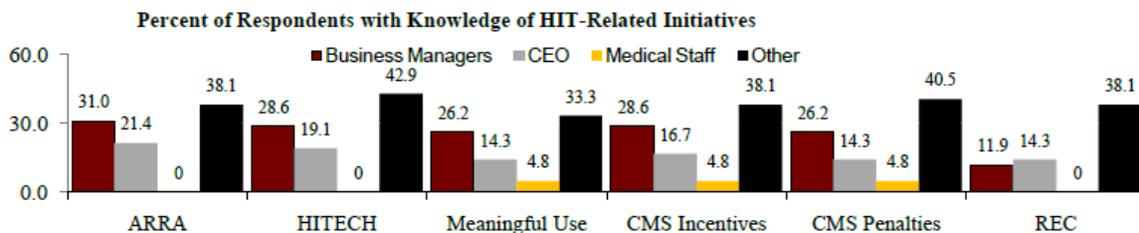
Surveys were mailed to all licensed hospitals (n=104) in December 2009 with a response rate of 40.4% (n=42). Three of the state's five Critical Access Hospitals responded.

### Internet Access

Hospitals were more likely to use fiber optic cable (50.0%) and T-1 lines (28.6%).

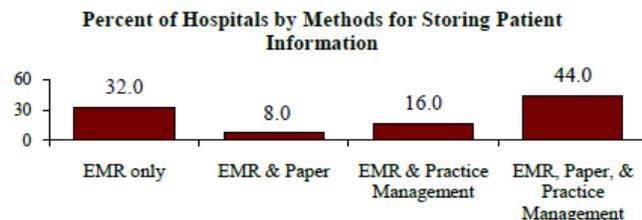
### Knowledge of Federal Initiatives, Incentives, and Penalties

The chief information officer (CIO) or the HIT director (listed as other in the chart below) were the most informed leaders at hospitals, followed by the business managers. Less than half of CIOs had knowledge of ARRA, HITECH, CMS incentives and penalties, meaningful use criteria and the regional extension center program. More education may be needed in all of these areas.

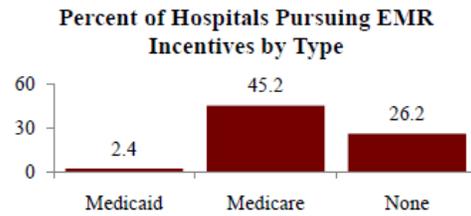


### Current Location of Patient Information

More than half (59.2%) of hospitals reported using an EMR. Most, however, use them in conjunction without patient storage methods.



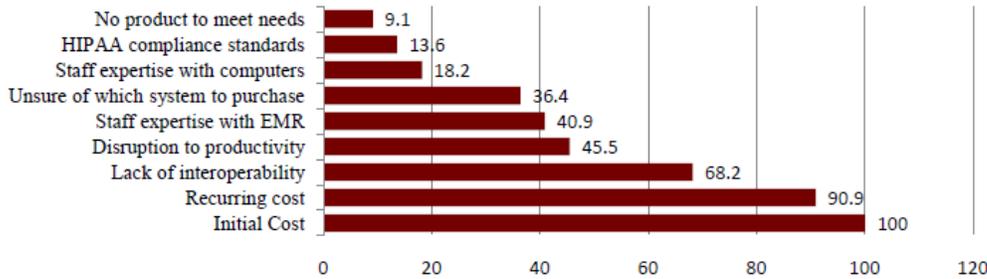
*EMR Incentive Applications.* More hospitals said they would pursue Medicare than Medicaid incentives. Over a third (31.0%) reported they would pursue both Medicare and Medicaid incentives. About 2.4% said they would only apply for the Medicaid incentive. Nearly one quarter (26.2%) said they would not apply for any incentive. Another one in five (21.4%) hospitals said they were unsure about which, if any, incentives they would pursue. These responses may suggest a high degree of uncertainty or lack of knowledge about the incentives or the policies around EMR adoption.



*CCHIT Certification & HIE Participation.* Most hospitals (68.4%) with EMRs reported having certification from the Certification Commission for Health Information Technology. Approximately 36.8% of hospitals currently participate in HIE, but only 15.8% of those participating said they actually exchange patient data.

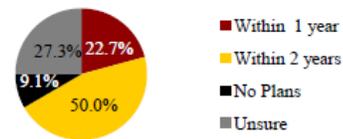
*Implementation Barriers for Non-Users.* When asked about barriers to EMR implementation, virtually everyone attributed costs, initial and recurring, as an obstacle. Lack of interoperability (68.2%) and disruption to productivity (45.5%) were the two most frequently cited barriers to implementation following cost.

**Percent of Hospitals Reporting Barriers to EMR Implementation**



*EMR Investment Timeline.* Of the hospitals without an EMR, less than a quarter (22.7%) intend to purchase within a year and another half within the next 2 years. Over a quarter were unsure of their investment timeline. A small portion reported they had no plans for purchasing an EMR.

**Percentage of Respondents by Timeline to Purchase an EMR**



**Conclusion**

While HIT adoption has been historically low in South Carolina, there appears to be enthusiasm for EMR adoption and HIE participation, as evidenced by training and technical assistance requests in our survey. There does appear, however, significant work ahead to get providers in our state ready for HIT adoption.

## Low Readiness for HITECH: Findings from the Health Information Exchange Cooperative Agreement Environmental Scan in South Carolina For Primary Care Practices

### Background

In the fall of 2009, the South Carolina Department of Health and Human Services (SCDHHS) was awarded the State Health Information Exchange Cooperative Agreement Program, an initiative of the Health Information Technology for Economic and Clinic Health (HITECH) Act. As a part of statewide strategic and operation planning, we conducted a cross sectional survey of physician practices to ascertain their:

- Knowledge of federal initiatives, incentives, and penalties for HIT adoption
- Current EMR adoption and functionality
- HIE readiness
- Plans for EMR adoption
- Anticipated costs and impact on productivity
- Ability to collect CMS quality indicators

### Description of Respondents

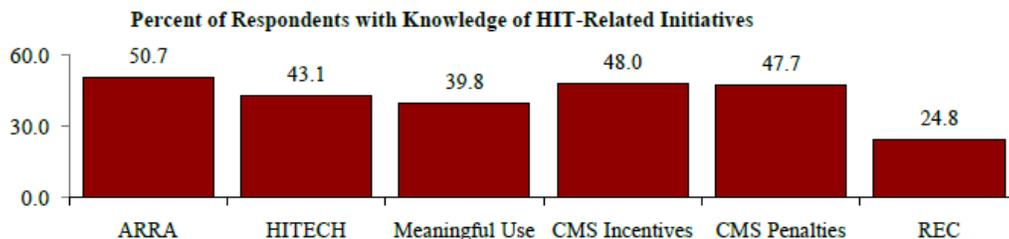
Physician practices responded at a rate of 25.2%, (n=378) reflecting 1092 practice sites. The response rate is a low estimate due to erroneous inclusion of some specialty practices in the practice address file. The research team estimates an actual response rate of 35% to 38%. Most practices were single-specialty (44.9%) or multi-specialty (42.6%). Noteworthy practice types in the distribution of responses include Rural Health Clinics (25.6%) and Federal Qualified Health Centers (8.6%).

### Internet Access

Physician practices were more likely to use T-1 lines (29.9%), fiber optic cable (19.9%), and DSL (17.8%).

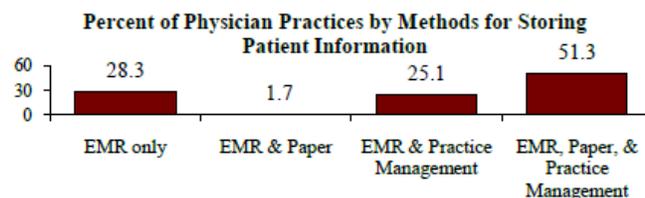
### Knowledge of Federal Initiatives, Incentives, and Penalties

Business managers were the most informed leaders at physician practices. Approximately half had knowledge of ARRA, CMS incentives and penalties. More education may be needed for HITECH, meaningful use criteria, and the regional extension center program.

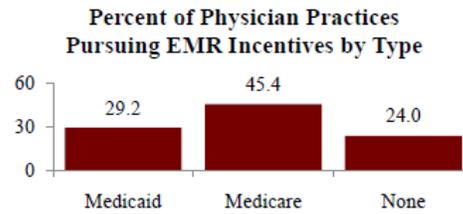


### Current Location of Patient Information

More than half (54.7%) of primary care practices reported using an EMR. Most, however, use them in conjunction without patient storage methods.



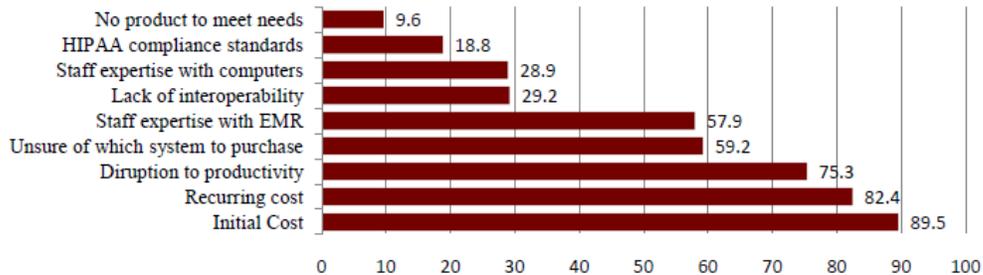
**EMR Incentive Applications.** More physician practices said they would pursue Medicare than Medicaid incentives. Nearly a quarter (24.5%) reported they would pursue both Medicare and Medicaid incentives. Less than 5% (4.7%) said they would only apply for the Medicaid incentive. Nearly one quarter said they would not apply for any incentive. Another one in five practices said they were unsure about which, if any, incentives they would pursue. These responses may suggest a high degree of uncertainty or lack of knowledge about the incentives or the policies around EMR adoption.



**CCHIT Certification & HIE Participation.** Most physician practices (67.8%) with EMRs reported having certification from the Certification Commission for Health Information Technology. Approximately 29.5% of practices currently participate in HIE, but only 17.8% of those participating said they actually exchange patient data.

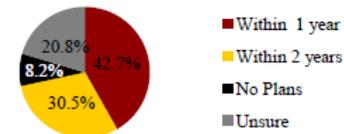
**Implementation Barriers for Non-Users.** When asked about barriers to EMR implementation, virtually everyone attributed costs, initial and recurring, as an obstacle. Productivity disruption (75.3%) and uncertainty of which system to purchase (59.2%) were the two most frequently cited barriers to implementation following cost.

**Percent of Physician Practices Reporting Barriers to EMR Implementation**



**EMR Investment Timeline.** Of the practices without an EMR, less than half (42.7%) intend to purchase within a year and another third within the next 2 years. One in five practices were unsure of their investment timeline. A small portion reported they had no plans for purchasing an EMR.

**Percentage of Respondents by Timeline to Purchase an EMR**



**Conclusion**

While HIT adoption has been historically low in South Carolina, there appears to be enthusiasm for EMR adoption and HIE participation, as evidenced by training and technical assistance requests in our survey. There does appear, however, significant work ahead to get providers in our state ready for HIT adoption.

### HIMSS stage of EMR Implementation

The compiled results of the detailed environmental scan displayed below show the breakdown and status of provider practices and hospitals based upon the HIMSS stages of EMR implementation.

		n (weighted n)	Percent of Practices
HIMSS Stage	0	55 (164)	35.97%
	1	4 (5)	1.10%
	2	9 (15)	3.29%
	3	5 (8)	1.75%
	4	79 (264)	57.90%

		Percent of Hospitals (n)
HIMSS Stage	0	58.90% (11)
	1	0.00%
	2	0.00%
	3	0.00%
	4	42.11% (8)

HIMSS Stages	
0	All Three Ancillaries Not Installed
1	Ancillaries - Lab, Rad, Pharmacy - All Installed
2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable
3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology
4	CPOE, Clinical Decision Support (clinical protocols)

**Environmental Scan Results for Telemedicine**

		n (weighted n)	Percent of Practices
Telemedicine Functions	NO	113 (241)	58.07%
	YES	22 (174)	41.93%
pda	NO	93 (445)	81.06%
	YES	42 (104)	18.94%
msg	NO	33 (60)	14.60%
	YES	105 (351)	85.40%
reg	NO	53 (201)	49.75%
	YES	82 (203)	50.25%
qual	NO	81 (123)	30.37%
	YES	55 (282)	69.63%
dis	NO	89 (207)	53.08%
	YES	38 (183)	46.92%
EMR meets practice needs	NO	119 (485)	93.81%
	YES	13 (32)	6.19%

		Percent of Hospitals (n)
Telemedicine Functions	NO	38.89% (7)
	YES	61.11% (11)
pda	NO	55.56% (10)
	YES	44.44% (8)
msg	NO	29.41% (5)
	YES	70.59% (12)
reg	NO	50.00% (9)
	YES	50.00% (9)
qual	NO	23.53% (4)
	YES	76.47% (13)
dis	NO	18.75% (3)
	YES	81.25% (13)
EMR meets practice needs	NO	76.47% (13)
	YES	23.53% (4)

pda = Physician Use of Personal Data Assistant

msg = Internal Messaging Capabilities

reg = Patient Registries

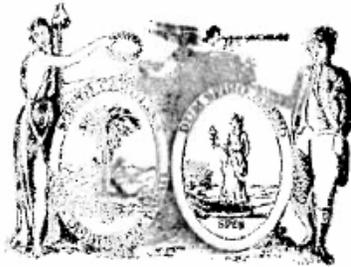
qual = Reporting Quality Measures

dis = Discharge Planning

## **Appendix B: Executive Order 2009-15**

See following page.

State of South Carolina  
Executive Department



**FILED**

**OCT 16 2009**

*Mark Hammond*  
SECRETARY OF STATE 8

Office of the Governor

EXECUTIVE ORDER NO.

2009-15

**WHEREAS**, the Congress and President of the United States enacted the American Recovery and Reinvestment Act of 2009 (the Act), which provides for the expenditure of \$500 billion in federal funds for infrastructure investment, health care and welfare programs, and other public works;

**WHEREAS**, the Act includes the Health Information Technology for Economic and Clinical Health Act of 2009 (the HITECH Act) that sets forth a plan for advancing the appropriate use of health information technology to improve quality of care and establish a foundation for health care reform;

**WHEREAS**, the HITECH Act authorizes the Centers for Medicare and Medicaid Services (CMS) to administer incentives to eligible professionals and hospitals to encourage the use of secure, electronic health records (EHRs);

**WHEREAS**, to achieve the goal of transforming the health care system through health information technology, three things must first be established:

- Clinicians and hospitals must acquire and implement certified EHRs in a way that fully integrates these tools into the care delivery process;
- Technical, legal, and financial supports are needed to enable information to flow securely and to support health care and population health; and,
- A skilled workforce needs to support the adoption of EHRs, information exchange across health care providers and public health authorities, and the redesign of work-flows within health care settings to gain the quality and efficiency benefits of EHRs while maintaining individual privacy and security; and

**WHEREAS**, health information technology systems are powerful tools that may be used to achieve outstanding quality in health care delivery, resource coordination, cost efficiency, and patient safety in the health care system.

**NOW, THEREFORE**, I hereby establish the Interim Governance Committee (Committee). The Committee's purpose is to recommend strategies and policies to successfully implement and sustain a statewide Health Information Exchange (HIE).

The Committee shall:

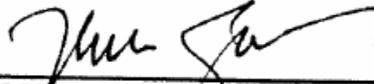
- Convene healthcare stakeholders and build trust and consensus among the stakeholders;
- Discuss ways to enhance the technical architecture and framework of the statewide HIE to promote the meaningful use of electronic health records by providers;
- Cooperate with stakeholders to develop appropriate standards for the statewide HIE's privacy, security, and interoperability that aligns with state and federal standards;
- Establish mechanisms to provide oversight and accountability to the HIE; and
- Advise and assist with the development of proposed enabling legislation to create a permanent governing body.

The Committee consists of the following members or their designees:

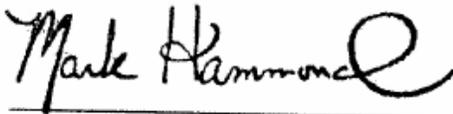
- (1) President of the South Carolina Hospital Association;
- (2) Chief Executive Officer of the South Carolina Office of Rural Health;
- (3) President of the South Carolina Medical Association;
- (4) Chief Executive Officer of the South Carolina Primary Health Care Association;
- (5) President of the South Carolina Pharmacy Association;
- (6) Director of the South Carolina Department of Health and Human Services;
- (7) Director of the Budget and Control Board's Office of Research and Statistics;
- (8) Commissioner of the Department of Health and Environmental Control;
- (9) Chairman of the Board of the Lakelands Rural Health Network;
- (10) President and Chief Executive Officer of Health Sciences South Carolina;  
and
- (11) A consumer.

This Order is effective immediately.

GIVEN UNDER MY HAND AND THE  
GREAT SEAL OF THE STATE OF  
SOUTH CAROLINA, THIS 16<sup>TH</sup> DAY  
OF OCTOBER 2009.

  
\_\_\_\_\_  
MARK SANFORD  
Governor

ATTEST:



MARK HAMMOND  
SECRETARY OF STATE



## **Appendix C: Proviso 89.120.**

**89.120.** (GP: Information Technology for Health Care) From the funds appropriated and awarded to the SC Department of Health and Human Services for the Health Information Technology for Economic and Clinical Health Act of 2009, the department shall advance the use of health information technology and health information exchange to improve quality and efficiency of health care and to decrease the costs of health care. In order to facilitate the qualification of Medicare and/or Medicaid eligible professionals and hospitals for incentive payments for meaningful health information technology (HIT) use, a health care organization participating in the South Carolina Health Information Exchange (SCHIEEx) or a Regional Health Information Organization (RHIO) or a hospital system health information exchange (HIE) that participates in SCHIEEx may release patient records and medical information, including the results of any laboratory or other tests ordered or requested by an authorized health care provider within the scope of his or her license or practice act, to another health information organization that requests the information via a HIE for treatment purposes with or without express written consent or authorization from the patient. A health information organization that receives or views this information from a patient's electronic health record or incorporates this information into the health information organization's electronic medical record for the patient in providing treatment is considered an authorized person for purposes of 42 C.F.R. 493.2 and the Clinical Laboratory Improvement Amendments.

## **Appendix D: Provider HIT Education Brochures**

See following page.

### It Starts with You.

Achieving meaningful use of an EHR system involves significant changes in the delivery of healthcare that must be clinician-led. EHR Adoption is a Process.

### Implementing an EHR system is:

- 1/3 technology
- 1/3 organizational culture
- 1/3 work flow

Practices that successfully implement EHR systems devote substantial time and effort to a pre-implementation phase in which current office workflows are analyzed and redesigned to integrate EHR technology into the existing process of healthcare delivery.

### Don't Delay!

Transitioning to EHR technology or upgrading an existing system does not happen overnight. Begin your transition or upgrade to certified\* EHR technology today.

### Get Started Today!

For information on EHR resources and educational opportunities visit:  
[www.palmettohit.net](http://www.palmettohit.net)

### How Can I Afford an EHR System?

The HITECH\* Act and associated rules established incentives for eligible healthcare professionals and organizations for meaningful use of certified EHR technology beginning in 2011.

The Medicare and Medicaid EHR incentive payments can help off-set the cost of a certified EHR system, especially if participation begins early.

While returns on investment vary by practice, many report substantial savings from:

- ↓ Non-billable diagnostic codes
- ↓ Time getting records to coders
- ↓ Misplaced paper charts
- ↓ Pharmacy call-backs
- ↓ Staff work hours managing patient information
- ↓ Need to fax information
- ↓ Need for physicians to come to the practice to sign charts
- ↓ Paper use

\*Health Information Technology for Economic and Clinical Health Act, 2009



## The HITECH Act and Electronic Health Records Technology and Certification

Palmettohit network is a statewide initiative to advance the use of electronic health records (EHR). Palmettohit partners include the SC Department of Health and Human Services, the SC Area Health Education Consortium, the SC Office of Rural Health, the SC Primary Health Care Association, the Carolinas Center for Medical Excellence, the Center for Information Technology Implementation Assistance in South Carolina, the SC Office of Research and Statistics and Health Sciences South Carolina.

### Electronic Health Record vs Electronic Medical Record

Many healthcare professionals may be familiar with or use an Electronic Medical Record (EMR). An Electronic Health Record (EHR) has a broader scope than an EMR.

An EMR is a computerized person-specific record of health-related information. It is created, managed and consulted within a single healthcare system or organization and serves as the legal record of the health services provided.

Your EMR for a specific patient may include information from many encounters that occurred within your practice or hospital system over a period of time. However, it may not necessarily include information from other types of encounters across the continuum of care for the patient, such as records of emergency, dental or pharmacy visits.

An EHR has a broader scope and contains computerized person-specific electronic medical records in a comprehensive or summary form that includes elements of a patient's health history spanning multiple healthcare professionals.

An EHR can be shared across different health care settings in a network-connected information system.

### How Do I Get Federal Incentive Payments for Using Health Information Technology (HIT)?

Medicare and Medicaid EHR incentive programs require that "eligible professionals" demonstrate "meaningful use" of "certified EHR technology" in order to receive incentive payments.

#### This includes:

- Determining healthcare professional eligibility
- Acquiring ATCB-approved EHR technology
- Adopting EHR functionality to meet the federal criteria for meaningful use
- Connecting to a health information exchange network
- Submitting health information and quality measures

Department of Health and Human Services Centers for Medicare & Medicaid Services. Medicare and Medicaid Program: Electronic Health Record Incentive Program - Final Rule, 2010

### Why Do I Need a Certified\* Electronic Health Record System?

Certification of EHR systems by an ONC-ATCB ensures that your system has the capability to:

- Maintain data confidentially
- Share information with other systems
- Reliably perform a standardized set of well-defined functions
- Achieve meaningful use

### How Do I Choose an EHR System?

Look for complete or modular EHR systems that, at a minimum, meet current minimal criteria for "meaningful use" as defined by The Office of National Coordinator for Health Information Technology (ONC). The task of making certain EHR systems meet ONC criteria primarily falls to EHR system vendors.

Eligible healthcare professionals MUST use EHR technology certified by an Office of the National Coordinator for Health Information Technology (ONC) - Authorized Testing and Certification Body (ATCB) to qualify for Medicaid and Medicare incentive payments and avoid Medicare penalties.

Certification regulations will define the process for ensuring that certified EHR systems meet the functionality, security, and interoperability standards required to achieve meaningful use.

Although ATCB-approved EHR certification ensures that the EHR capabilities will be available to achieve meaningful use, you are responsible for making sure the functions are activated and being used effectively.

\*In June 2010, the ONC is established a temporary process for identifying organizations that will certify EHR systems. The ONC website will maintain the Certified HIT Products List (CHPL) as a single, aggregate source of all certified Complete EHRs and EHR Modules reported by ONC-ATCBs to the National Coordinator, as well as the version number for "Complete" certified EHR systems. Eligible professionals and hospitals that elect to use a combination of certified EHR "Modules" may also use the CHPL webpage to validate whether the EHR Modules they have selected satisfy all of the applicable certification criteria that are necessary to meet the definition of Certified EHR Technology. ref: Health Information Technology: Establishment of the Temporary Certification Program for Health Information Technology, Final Rule, June 18, 2010



### It Starts with You.

Achieving meaningful use of an EHR system involves significant changes in the delivery of healthcare that must be clinician-led.

### EHR Adoption is a Process.

A methodical, step-wise approach will minimize problems and costs while maximizing acceptance and use.

Routinely sharing and reporting clinical data in a standardized electronic format is expected to increase your ability to improve healthcare quality, efficiency and safety for your patients.

### Don't Delay!

With good planning and "patience for the process," you can successfully take your practice into the electronic age and take advantage of federal incentives.

### Get Started Today!

For information on EHR resources and educational opportunities visit:  
[www.palmettohit.net](http://www.palmettohit.net)

### Why now?

Federal legislation provides Medicaid & Medicare incentive payments for professionals who demonstrate meaningful use of an electronic health record beginning in 2011.

The incentive programs aim to align hospitals and professionals across the country at the same level of EHR meaningful use by the year 2015.

Delaying participation beyond 2011 limits the time you need to meet lower-level EHR criteria to receive incentive payments.

Under the Medicare program, delaying participation to 2013 will result in lower incentive payments.

Beginning in 2015, professionals who cannot demonstrate meaningful use of a certified EHR system will incur financial penalties in the form of reduced Medicare reimbursements.



## The HITECH Act and Electronic Health Records Incentives and Penalties

Palmettohit network is a statewide initiative to advance the use of electronic health records (EHR). Palmettohit partners include the SC Department of Health and Human Services, the SC Area Health Education Consortium, the SC Office of Rural Health, the SC Primary Health Care Association, the Carolinas Center for Medical Excellence, the Center for Information Technology Implementation Assistance in South Carolina, the SC Office of Research and Statistics and Health Sciences South Carolina.

### Why is This Important?

The 2009 HITECH Act<sup>a</sup> and associated rules<sup>b</sup> established Medicaid and Medicare incentive payments to eligible healthcare professionals and hospitals to promote the adoption and meaningful use of interoperable Health Information Technology and Electronic Health Record (EHR) systems.

The legislation also includes penalties in the form of reduced Medicare reimbursement for those who fail to initiate meaningful EHR use within a specified timeframe.

Healthcare professional eligibility is based on specific criteria that differ between the Medicaid and Medicare program.

Healthcare professionals who meet eligibility criteria for both programs may only choose one. Hospitals may be eligible to receive incentive payments from both programs.

<sup>a</sup> The Health Information Technology for Economic and Clinical Health (HITECH) Act

<sup>b</sup> Medicare and Medicaid Programs: Electronic Health Record Incentive Program - Final Rule, 2010

Health Information Technology: Initial Set of Standards, Implementation Specifications; Certification Criteria for Electronic Health Record Technology - Final Rule, 2010

Health Information Technology: Establishment of the Temporary Certification Program for Health Information Technology, Final Rule, 2010

### How Do I Get Federal Incentive Payments for Using Health Information Technology (HIT)?

Medicare and Medicaid EHR incentive programs require that "eligible professionals" demonstrate "meaningful use" of "certified\* EHR technology" in order to receive incentive payments.

#### This includes:

- Determining healthcare professional eligibility
- Acquiring ONC-ATCB certified\* EHR technology
- Adopting EHR functionality to meet the federal criteria for meaningful use
- Connecting to a health information exchange network
- Submitting health information and quality measures

### Why Do I Need a Certified\* Electronic Health Record System?

Certification of EHR systems by an ONC-ATCB ensures that your system has the capability to:

- Maintain data confidentially
- Share information with other systems
- Reliably perform a standardized set of well-defined functions
- Achieve meaningful use

\*Eligible healthcare professionals MUST use EHR technology certified by an Office of the National Coordinator for Health Information Technology (ONC) - Authorized Testing and Certification Body (ATCB) to qualify for Medicaid and Medicare incentive payments and avoid Medicare penalties. ONC-ATCBs test and certify that EHR technology (Complete EHRs and EHR Modules) is compliant with the standards, implementation specifications, and certification criteria adopted by the Secretary of Health and Human Services and meet the definition of "certified EHR technology".

### What is "Meaningful Use"?

Requiring "meaningful use" seeks to encourage healthcare professionals to use the functionalities in their EHR systems to improve quality of care and share information on a secure network for health information exchange.

Criteria defining meaningful use will be phased in via three stages beginning in 2011.

- Stage 1 (Details outlined in the Final Rule)<sup>c</sup>: Capturing health information; tracking key clinical conditions; communicating information for care coordination purposes; implementing clinical decision support tools; engaging patients and families; and reporting clinical quality measures and public health information.
- Stage 2 (Proposed goals): Continuous quality improvement at the point of care and the exchange of information in the most structured format possible, including computerized provider order entry (CPOE) and the electronic transmission of diagnostic test results.
- Stage 3 (Proposed goals): Promote improvements in quality, safety and efficiency leading to improved health outcomes, decision support for national high priority conditions, patient access to self management tools, access to comprehensive patient data through robust, patient-centered health information exchange and improvement in population health.

Each stage requires increasingly robust activities to fulfill the criteria for incentive payments.



### How Do I Get Federal Incentives for Using Health Information Technology?

Medicaid and Medicare EHR incentive programs, require that "eligible professionals" demonstrate "meaningful use" of "certified EHR technology" in order to receive incentive payments.

#### This includes:

- Determining healthcare professional eligibility
- Acquiring certified EHR technology
- Adopting EHR functionality to meet the federal criteria for meaningful use
- Connecting to a health information exchange network
- Submitting health information and quality measures

Department of Health and Human Services Centers for Medicare & Medicaid Services. Medicare and Medicaid Programs: Electronic Health Record Incentive Program - Final Rule, 2010

#### Don't Delay!

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### Get Started Today!

For information on EHR resources and educational opportunities visit: [www.palmettohit.net](http://www.palmettohit.net)

### Why is This Important?

The 2009 HITECH Act<sup>4</sup> and associated rules<sup>5</sup> established Medicaid and Medicare incentive payments to eligible healthcare professionals and hospitals to promote the adoption and meaningful use of interoperable Health Information Technology and Electronic Health Record (EHR) systems.

The legislation also includes penalties in the form of reduced Medicare reimbursement for those who fail to initiate meaningful EHR use within a specified timeframe.

Healthcare professional eligibility is based on specific criteria that differ between the Medicaid and Medicare program.

Healthcare professionals who meet eligibility criteria for both programs may only choose one. Hospitals may be eligible to receive incentive payments from both programs.

<sup>4</sup> The Health Information Technology for Economic and Clinical Health (HITECH) Act

<sup>5</sup> Medicare and Medicaid Programs: Electronic Health Record Incentive Program - Final Rule, 2010

Health Information Technology: Initial Set of Standards, Implementation Specifications; Certification Criteria for Electronic Health Record Technology - Final Rule, 2010

Health Information Technology: Establishment of the Temporary Certification Program for Health Information Technology: Final Rule, 2010



## The HITECH Act and Electronic Health Records Medicaid Incentives

Palmettohit network is a statewide initiative to advance the use of electronic health records (EHR). Palmettohit partners include the SC Department of Health and Human Services, the SC Area Health Education Consortium, the SC Office of Rural Health, the SC Primary Health Care Association, the Carolinas Center for Medical Excellence, the Center for Information Technology Implementation Assistance in South Carolina, the SC Office of Research and Statistics and Health Sciences South Carolina.

### What is "Meaningful Use"?

Federal legislation provides Medicare and Medicaid incentives for healthcare professionals who demonstrate "meaningful use" of an electronic health record beginning in 2011.

Requiring meaningful use of EHR technology seeks to encourage healthcare professionals to use the functionalities in their EHR systems to improve quality of care and share information on a secure network for health information exchange.

Criteria defining meaningful use will be phased in via three stages beginning in 2011.

- **Stage 1 (Details outlined in the Final Rule<sup>6</sup>):** Capturing health information; tracking key clinical conditions; communicating information for care coordination purposes; implementing clinical decision support tools; engaging patients and families; and reporting clinical quality measures and public health information.
- **Stage 2 (Proposed goals):** Continuous quality improvement at the point of care and the exchange of information in the most structured format possible, including computerized provider order entry (CPOE) and the electronic transmission of diagnostic test results.
- **Stage 3 (Proposed goals):** Promote improvements in quality, safety and efficiency leading to improved health outcomes, decision support for national high priority conditions, patient access to self management tools, access to comprehensive patient data through robust, patient-centered health information exchange and improvement in population health.

Each stage requires increasingly robust activities to fulfill the criteria for incentive payments. Unlike the Medicare Program, Medicaid will pay the first-year incentive for simply adopting or implementing certified EHR technology in the first year. Those who have already implemented an EHR system can earn the incentive from Medicaid by upgrading to a certified system during year one.

Medicaid Incentives

### Eligibility Requirements & Incentives for the Medicaid Program

Qualifying Providers' and Patient Volume Threshold for Medicaid Incentive Payment <sup>1</sup>		
Healthcare Professional Type	90-day minimum Medicaid patient volume	FQHC / RHC "Needy-Individual" patient volume
Physician	30%	30% "needy individual" patient volume threshold
Pediatrician	20%	
Dentist	30%	
Certified Nurse Midwife	30%	
Physician Assistant <sup>2</sup>	30%	
Nurse Practitioner	30%	
Acute Care Hospital	10%	Hospitals with an average patient length of stay of 25 days or fewer and with a CCN that falls in the range 0001-0879 or 1300-1399
Children's Hospital	No minimum required	CCNs in the 3300-3399 series

<sup>1</sup> Eligible professionals must be legally authorized to practice by the state in which they perform such functions and acting within the scope of their license when such functions are performed.

<sup>2</sup> If practicing at a Federally Qualified Health Center (FQHC) or Rural Health Clinic (RHC) that is led by a physician assistant.

Hospital-based individuals who furnish substantially all professional services in a hospital setting<sup>4</sup> may not be eligible for incentive payments.

Practitioners trained in primary care who are serving in nonprimary care roles within a hospital setting (such as in emergency departments or functioning as hospitalists) and those performing primary care services exclusively in the hospital setting would also NOT be eligible to receive incentive payments.

<sup>4</sup> Defined as claim-based place of service codes 21 (Inpatient) or 23 (ER).

First EHR year	Level of use that must be demonstrated to receive Medicaid incentive payment each year*											Maximum Total Payment
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
2011	\$2,250	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$0	\$0	\$0	\$0	\$0	\$63,750
2012		\$2,250	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$0	\$0	\$0	\$0	\$63,750
2013			\$2,250	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$0	\$0	\$0	\$63,750
2014				\$2,250	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$0	\$0	\$63,750
2015					\$2,250	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$0	\$63,750
2016						\$2,250	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$63,750

\* Participants who adopt, implement, or upgrade an EHR in the first year are eligible to receive payment. However, ALL participants must demonstrate Stage 1 meaningful use in the second year and beyond.

### How Do I Get Federal Incentives for Using Health Information Technology (HIT)?

Medicaid and Medicare EHR incentive programs, require that "eligible professionals" demonstrate "meaningful use" of "certified EHR technology" in order to receive incentive payments.

#### This includes:

- Determining healthcare professional eligibility
- Acquiring certified EHR technology
- Adopting EHR functionality to meet the federal criteria for meaningful use
- Connecting to a health information exchange network
- Submitting health information and quality measures

Department of Health and Human Services Centers for Medicare & Medicaid Services, Medicare and Medicaid Programs: Electronic Health Record Incentive Program - Proposed Rule, 2009

#### Don't Delay!

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#### Get Started Today!

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### Why is This Important?

The 2009 HITECH Act<sup>a</sup> and associated rules<sup>b</sup> established Medicaid and Medicare incentive payments to eligible healthcare professionals and hospitals to promote the adoption and meaningful use of interoperable Health Information Technology and Electronic Health Record (EHR) systems.

The legislation also includes penalties in the form of reduced Medicare reimbursement for those who fail to initiate meaningful EHR use within a specified timeframe.

Healthcare professional eligibility is based on specific criteria that differ between the Medicaid and Medicare program.

Healthcare professionals who meet eligibility criteria for both programs may only choose one. Hospitals may be eligible to receive incentive payments from both programs.

<sup>a</sup> The Health Information Technology for Economic and Clinical Health (HITECH) Act

<sup>b</sup> Medicare and Medicaid Programs: Electronic Health Record Incentive Program - Final Rule, 2010

Health Information Technology: Initial Set of Standards, Implementation Specifications; Certification Criteria for Electronic Health Record Technology - Final Rule, 2010

Health Information Technology: Establishment of the Temporary Certification Program for Health Information Technology, Final Rule, 2010



## The HITECH Act and Electronic Health Records Medicare Incentives

Palmettohit network is a statewide initiative to advance the use of electronic health records (EHR). Palmettohit partners include the SC Department of Health and Human Services, the SC Area Health Education Consortium, the SC Office of Rural Health, the SC Primary Health Care Association, the Carolinas Center for Medical Excellence, the Center for Information Technology Implementation Assistance in South Carolina, the SC Office of Research and Statistics and Health Sciences South Carolina.

### What is "Meaningful Use"?

Federal legislation provides Medicaid & Medicare incentive payments for healthcare professionals who demonstrate "meaningful use" of an electronic health record beginning in 2011. The EHR meaningful use requirement seeks to encourage healthcare professionals to use the functionalities in their EHR systems to improve quality of care and share information on a secure network for health information exchange.

Criteria defining meaningful use will be phased in via three stages beginning in 2011.

- **Stage 1 (Details outlined in the Final Rule):** Capturing health information; tracking key clinical conditions; communicating information for care coordination purposes; implementing clinical decision support tools; engaging patients and families; and reporting clinical quality measures and public health information.
- **Stage 2 (Proposed goals):** Continuous quality improvement at the point of care and the exchange of information in the most structured format possible, including computerized provider order entry (CPOE) and the electronic transmission of diagnostic test results.
- **Stage 3 (Proposed goals):** Promote improvements in quality, safety and efficiency leading to improved health outcomes, decision support for national high priority conditions, patient access to self management tools, access to comprehensive patient data through robust, patient-centered health information exchange and improvement in population health.

Each stage requires increasingly robust activities to fulfill the criteria for incentive payments.

If you qualify for the Medicare program:

- Delaying participation beyond 2011 limits the transition period during which you will need to meet lower-level EHR criteria to receive incentive payments.
- Delaying participation to 2013 will result in lower incentive payments.
- Failure to demonstrate meaningful use by 2015 will incur financial penalties in the form of reduced Medicare reimbursements.

### Eligibility Requirements & Incentives for the Medicare Advantage (MA) Healthcare Organizations and Fee-for-Service Providers

Provider	Minimum threshold of service
Medicare Advantage (MA) affiliated eligible professional <sup>1</sup>	Must provide a minimal average of 20 hours of patient care services/week
Subcontracted eligible professional <sup>1</sup>	Must provide at least 80% of his/her professional services to enrollees of the MA organization
Fee for Service eligible professional	"Meaningful EHR users" during a relevant reporting period are entitled to an incentive payment amount, subject to an annual limit, equal to 73% of estimated allowable Medicare charges.
<b>Hospital</b>	Incentive payments may NOT be made to hospital-based individuals who furnish substantially all professional services (90%) in a hospital setting
Acute Care	Defined by the Social Security Act with a unique CMS Certification Number (CCN that falls in the range 0001-0879 or 1300-1399) <sup>2</sup>
Critical Access	

<sup>1</sup> Incentive payments will be made to qualifying Medicare Advantage (MA) organizations for the adoption and meaningful use of EHR technology by eligible professionals employed or subcontracted by the MA organization.

<sup>2</sup> Hospitals, such as psychiatric, rehabilitation, children's, and a hospital whose patients' average length of stay is more than 25 days are NOT eligible hospitals.

EHR adoption year	Level of use that must be demonstrated to receive maximum Medicare incentive payment each year							Total Maximum* Payment
	2011	2012	2013	2014	2015	2016	2017	
2011	\$18,000	\$12,000	\$ 8,000	\$ 4,000	\$2,000	\$ 0	\$ 0	\$44,000
2012		\$18,000	\$12,000	\$ 8,000	\$4,000	\$2,000	\$ 0	\$44,000
2013			\$15,000	\$12,000	\$8,000	\$4,000	\$ 0	\$39,000
2014				\$12,000	\$8,000	\$4,000	\$ 0	\$24,000
2015 & beyond**					\$ 0	\$ 0	\$ 0	\$ 0

\* Eligible professionals practicing primarily in health shortage areas qualify for additional incentive payments.

\*\* Eligible professionals in the Medicare program who begin EHR use in 2015 will not receive incentive payments but will avoid reimbursement penalties.

Medicare Incentives



### *It Starts with You.*

Achieving meaningful use of a certified Electronic Health Record (EHR) system involves significant changes in the delivery of healthcare that must be clinician-led.

### *EHR adoption is a process.*

A methodical, step-wise approach will minimize problems and costs while maximizing acceptance and use.

Routinely sharing and reporting clinical data in a standardized electronic format is expected to increase your ability to improve healthcare quality, efficiency and safety for your patients.

### *Don't Delay!*

With good planning and "patience for the process", you can successfully take your practice into the electronic age and take advantage of federal incentives.

### *You are not alone!*

The Center for Information Technology Implementation Assistance in South Carolina can help.  
[www.citiasc.org](http://www.citiasc.org)

### *The Center for Information Technology Implementation Assistance in South Carolina (CITIA-SC)*

CITIA-SC is a program of Health Sciences South Carolina. Its mission is to improve the health and quality of life of South Carolinians through the use of electronic health information as a critical tool for achieving enhanced clinical effectiveness, improved overall performance of the healthcare system and better value and satisfaction for all patient consumers.

CITIA-SC is part of a national effort to establish a network of Health Information Technology Regional Extension Centers (RECs). RECs will offer technical assistance, guidance, and information on best practices to support and accelerate the efforts of healthcare professionals to become meaningful users of EHRs and facilitate their ability to receive Medicare and Medicaid reimbursement incentives in future years.

CITIA-SC is primarily designed to assist with the selection, adoption, and meaningful use of electronic health records by primary care providers serving rural and underserved areas statewide.



**CITIA-SC**  
A Regional Extension Center

*The Center for Information Technology Implementation Assistance in South Carolina*

Palmettohit network is a statewide initiative to advance the use of electronic health records (EHR). Palmettohit partners include the SC Department of Health and Human Services, the SC Area Health Education Consortium, the SC Office of Rural Health, the SC Primary Health Care Association, the Carolinas Center for Medical Excellence, the Center for Information Technology Implementation Assistance in South Carolina, the SC Office of Research and Statistics and Health Sciences South Carolina.

### *What can CITIA-SC do for me?*

CITIA-SC will support healthcare professionals with direct, individualized, and on-site technical assistance.

#### **CITIA-SC will help you:**

- Select the BEST certified EHR product for your specific practice needs
- Achieve effective implementation of your certified EHR product
- Enhance administrative and clinical workflows in your practice to optimally leverage your EHR system
- Observe and comply with applicable regulatory, professional, and ethical requirements to protect the integrity, privacy, and security of your patients' health information

### *How do I join?*

Visit [www.citiasc.org](http://www.citiasc.org) and complete a short online application. A CITIA-SC representative will contact you.

### *How can CITIA-SC help my practice?*

#### **Offer information and consultation about:**

- Effective strategies and practices to select, implement, and meaningfully use certified EHR technology to improve the quality and value of healthcare
- Preferred EHR vendor products\*
- Redesigning practice workflow to achieve meaningful use of your EHR
- Best practices with respect to the privacy and security of personal health information

#### **Assist with:**

- Health IT needs assessment and EHR review of your practice
- Negotiation of group pricing and purchase contracts with preferred vendors\*
- EHR implementation process, including individualized and onsite coaching and consultation
- Achievement of meaningful use as defined by Medicare and Medicaid regulations and guidance
- Attaining functional interoperability by participating on a Health Information Exchange (HIE)

\* Preferred vendor products have been reviewed and vetted by an expert committee.

#### **Continue to support your practice by:**

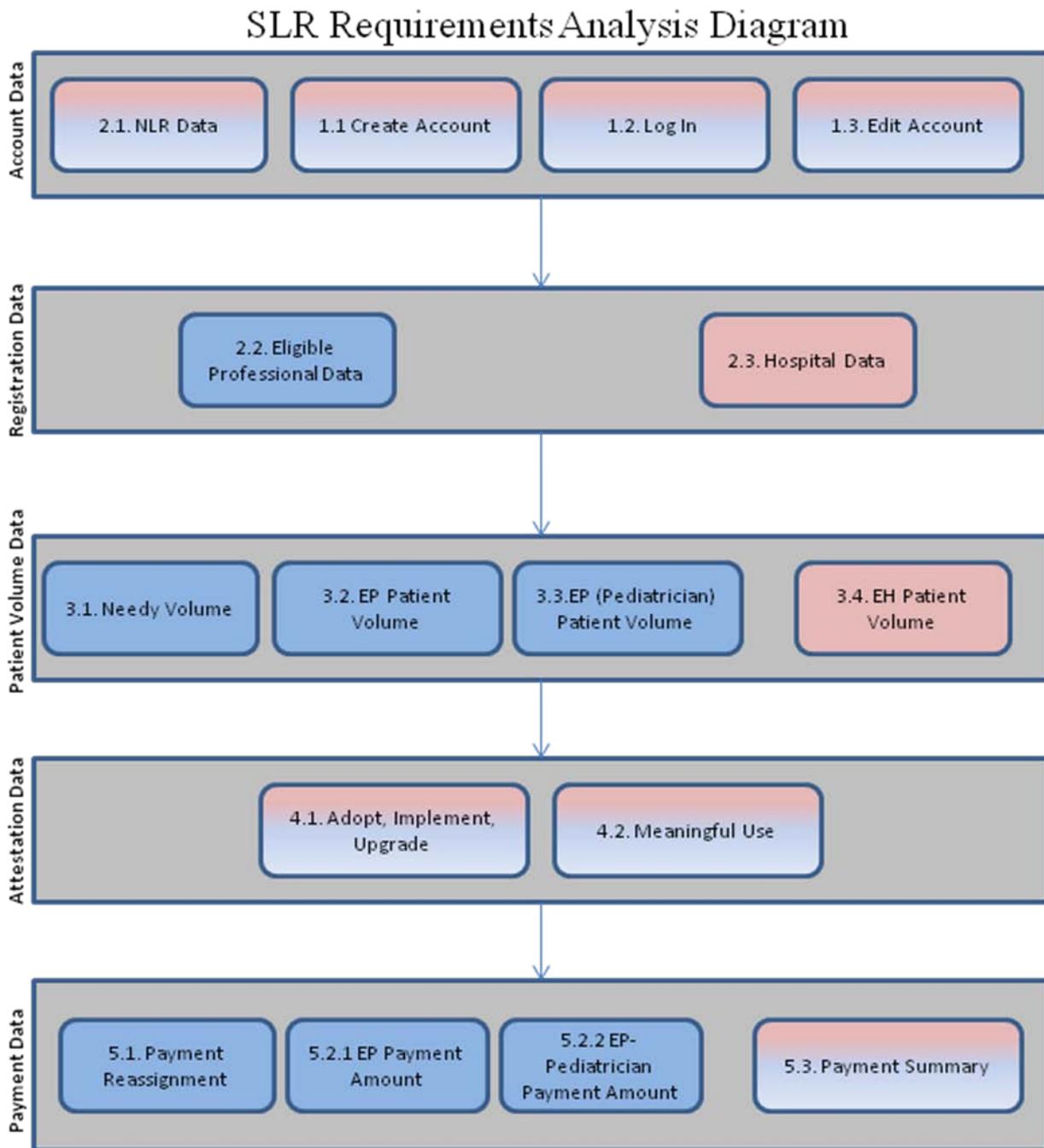
- Keeping CITIA-SC members informed about national developments that may impact your practice as you work toward achieving meaningful use of your certified EHR system
- Partnering with the Technical College System in South Carolina to promote integration of Health IT into the initial and ongoing training or retraining of your staff to address changing workforce needs (e.g., internships, didactic programs, and local training programs)
- Offering regional meetings for you and members of your staff
- Participating in the national consortium of extension centers

### *How much does it cost to join CITIA-SC?*

CITIA-SC initially is supported by a cooperative agreement with the Federal Department of Health and Human Services. Practices committed to attaining EHR meaningful use who join the CITIA-SC program prior to April 6, 2011 will receive free services for up to one year.



## Appendix E: SLR Requirements Analysis Outline



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## SLR Requirements Analysis Outline

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1. Account Data
  - 1.1. Creating an Account
  - 1.2. Log in Page
  - 1.3. Edit Account
2. Registration Data
  - 2.1. Information from the NLR
  - 2.2. Eligible Professional Data
  - 2.3. Hospital Data
3. Patient Volume Data
  - 3.1. Needy Patient Volume
  - 3.2. Medicaid Patient Volume
  - 3.3. Medicaid Patient Volume (Pediatricians)
  - 3.4. Hospital Patient Volume
4. Attestation Data
  - 4.1. Adopt, Implement or Upgrade
  - 4.2. Meaningful Use
5. Payment Data
  - 5.1. Payment Reassignment
  - 5.2. Payment Amounts
  - 5.3. Payment Summary
6. Notifications and Instructions
  - 6.1. Registration Email Confirmation

- 6.2. Medicaid Enrollment Instructions
- 6.3. Not Eligible for EHR Program Notification

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## 1. Account Data

### 1.1. Creating an Account

- 1.1.1. Page Notated: **The first time an Eligible Professional (EP) or an Eligible Hospital (EH) comes to the State Level Repository (SLR) site they should already have registered with the National Level Repository (NLR) on the CMS website. Please use the same NPI number used when registering with the NLR. If you have not registered with the NLR, please do so here: <http://www.cms.gov/EHRIncentivePrograms>. There is a 24-hour delay between registration with the NLR and the ability to create an account in the SLR. For any questions, contact the SCDHHS Health Information Technology Division at [hitsc@scdhhs.gov](mailto:hitsc@scdhhs.gov).**
- 1.1.2. Gathers email address and NLR Confirmation Number
  - 1.1.2.1. E-mail Address
  - 1.1.2.2. Confirm E-Mail Address
  - 1.1.2.3. NLR Confirmation Number
    - 1.1.2.3.1. Validates the NLR Confirmation Number provided by the user with the data downloaded from the NLR. If no matching NLR Confirmation Number is found, the user is redirected to an instruction page for registering with the NLR.
- 1.1.3. A confirmation e-mail with temporary password is sent upon successful registration. (6.1)

### 1.2. Log in Page

- 1.2.1. A log in screen authenticates the e-mail and password with information gathered when the account was created.
  - 1.2.1.1. E-mail Address
  - 1.2.1.2. Password
    - 1.2.1.2.1. When a user logs in the first time they use the temporary password sent in the confirmation email. Upon that initial log in they are forced to change the temporary password to a permanent password.

### 1.3. Edit Account

- 1.3.1. Once logged in, users can edit details of their account, including password changes.

## 2. Registration Data

### 2.1. Information from the NLR

- 2.1.1. Displays all data sent to the State from the NLR. These fields are not editable by the user.
  - 2.1.1.1. Eligible Professional or Eligible Hospital Name
  - 2.1.1.2. NLR Confirmation Number
  - 2.1.1.3. NPI
  - 2.1.1.4. Business Address

**2.1.1.5. Phone Number**

**2.1.1.6. TIN**

**2.1.1.7. CCN**

2.1.1.7.1. The CCN is used to determine if the registrant is an EP or an EH. A populated CCN field indicates an EH, a blank CCN indicates an EP. Section 2.2 is visible to an EP. Section 2.3 is visible to an EH.

2.1.2. Page Notated: **If any of the information on this page is incorrect, please return to the National Level Repository and modify your registration data.**

**<http://www.cms.gov/EHRIncentivePrograms>**.

**2.2. Eligible Professional Data**

2.2.1. Gathers direct contact information for the provider

**2.2.1.1. Contact Person**

**2.2.1.2. Contact Street Address**

**2.2.1.3. Contact State and Zip**

**2.2.1.4. Contact Phone Number**

**2.2.1.5. Contact E-mail Address**

2.2.2. Determine whether the EP is an enrolled Medicaid Provider

**2.2.2.1. Enrolled Medicaid Provider (Yes/No)**

2.2.2.1.1. If the applicant answers “No”, they will be redirected to a page explaining why they are not eligible and instructions on how to become an Enrolled Medicaid Provider.

2.2.3. Determine whether the EP is a hospital based physician

**2.2.3.1. Hospital Based Physician (Yes/No)**

2.2.3.1.1. Field notated: **A hospital based EP is ineligible, regardless of the type of service provided, if more than 90% of their services are identified as being provided in POS classified under POS 21 (Inpatient Hospital) or POS 23 (Emergency Room).**

2.2.3.1.2. If the applicant answers Yes, they will be redirected to a page explaining why they are not eligible.

2.2.4. Determine the Provider Affiliation

**2.2.4.1. Provider Affiliation**

**2.2.4.1.1. Private Practice**

**2.2.4.1.2. Community Health Center**

**2.2.4.1.3. Health Department**

**2.2.4.1.4. Other**

2.2.5. Determine the Type of Provider

**2.2.5.1. Type of Eligible Professional**

**2.2.5.1.1. Physician**

**2.2.5.1.2. Physician – Pediatrician**

2.2.5.1.2.1. This activates the Pediatric Patient Volume module.  
(3.3)

**2.2.5.1.3. Dentist**

**2.2.5.1.4. Nurse Practitioner**

**2.2.5.1.5. Certified Nurse Midwife**

**2.2.5.1.6. Physician Practicing Predominantly in an FQHC and/or RHC**

**2.2.5.1.7. Physician Assistant in an FQHC or RHC so led by a Physician Assistant**

2.2.5.1.7.1. This activates the Needy Patient Volume module. (3.1)

2.2.5.1.8. Field Notated: **A Physician is considered practicing predominantly in an FQHC and/or RHC if greater than 50% of their clinical work in a 6 month period occurs in an FQHC and/or RHC. A PA practicing in an FQHC or RHC so led by a PA must meet one of the following requirements: (1) The PA is the primary provider in a clinic (i.e. a clinic with a part-time physician and full-time PA). (2) The PA is a clinical or medical director at a clinical site of practice. (3) The PA is an owner of an RHC.**

**2.2.5.1.9. Optometrist**

2.2.6. Determine Medicaid Managed Care Plan Affiliation. This is an Optional Field.

**2.2.6.1. Medicaid Managed Care Plan**

**2.2.6.1.1. None**

2.2.6.1.1.1. This is the default option

**2.2.6.1.2. First Choice by Select Health of South Carolina**

**2.2.6.1.3. Unison Health Plan**

**2.2.6.1.4. Absolute Total Care**

**2.2.6.1.5. Blue Choice Health Plan of SC**

2.2.7. Determine if the EP plans to use a designated payee

**2.2.7.1. Do you plan to reassign payment to an employer or other entity? (Yes/No)**

2.2.7.1.1. A yes response will activate the Payment Reassignment module in the Payment Summary section. (5.1)

2.2.7.1.2. Field notated: **EPs are allowed to reassign their incentive payment to their employer or an entity with which they have a valid employment agreement or contract providing for such reassignment. If this answer is marked “Yes” then the EP must complete the “Payment Reassignment” section.**

2.2.8. Determine if the EP is a current SCHIEEx subscriber

**2.2.8.1. Current SCHIEEx subscriber (Yes/No)**

2.2.8.1.1. If “No” the provider will be directed to information on the where to go to sign up for SCHIEEx. (<http://www.schiex.org/>)

## 2.3. Hospital Data

2.3.1. Gathers direct contact information for the hospital

**2.3.1.1. Contact Person**

**2.3.1.2. Contact Street Address**

**2.3.1.3. Contact State and Zip**

**2.3.1.4. Contact Phone Number**

**2.3.1.5. Contact E-mail Address**

2.3.2. Determine whether the hospital is an enrolled Medicaid Provider

**2.3.2.1. Enrolled Medicaid Provider (Yes/No)**

2.3.2.1.1. If the applicant answers “No”, they will be redirected to a page explaining why they are not eligible and instructions on how to become an Enrolled Medicaid Provider.

2.3.3. Determine if the hospital is a current SCHIEEx subscriber

**2.3.3.1. Current SCHIEEx subscriber (Yes/No)**

2.3.3.1.1. If “No” the provider will be directed to information on where to go to sign up for SCHIEEx. (<http://www.schiex.org/>)

2.3.4. Determine if the hospital plans to apply for the Medicare EHR Incentive Program

**2.3.4.1. Also applying for the Medicare EHR Incentive program (Yes/No)**

2.3.4.1.1. If yes, then the Meaningful Use information is tracked by the NLR instead of the SLR.

## 3. Patient Volume Data

### 3.1. Needy Patient Volume

3.1.1. EPs who selected the “Physician Assistant in an FQHC or RHC so led by a Physician Assistant” option or the Physician Predominantly Practicing in an FQHC and/or RHC on the Eligible Professional Data module (2.2.5.1.6) use this module to track needy patient volume and record FQHC and/or RHC percentage data.

**3.1.2. Page Notated: Please provide the Patient Volume information and FQHC and/or RHC information in the fields below. The data can be calculated based on any continuous 90-day period in the 2010 calendar year. The following are considered “Needy Patient Encounters”: (1) Services rendered on any one day to an individual where Medicaid or CHIP paid for part or all of the service; or (2) Services rendered on any one day to an individual for where Medicaid or CHIP paid all or part of their premiums, copayments, and/or cost-sharing. (3) Services rendered to an individual on any one day on a sliding scale or that were uncompensated.**

**3.1.3. FQHC and/or RHC Identification (Multi Record Table)**

**3.1.3.1. FQHC and/or RHC Identifier (Identifier TBD)**

3.1.3.1.1. The identifier is compared against an existing list for verification. If the identifier is not validated an error screen directs the user to enter an existing FQHC and/or RHC identifier. The providers will

be able to enter more than one FQHC and/or RHC and percentages for each.

**3.1.3.2. Percentage of work time**

**3.1.3.3.** The total percentage of work time should be 100% or less.

3.1.4. Determines the 90-day reporting period

**3.1.4.1. 90 Day Period Begin Date**

3.1.4.1.1. Validates that the date is within the 2010 calendar year. A failure displays a message or redirect page indicating they must enter a date within the 2010 calendar year.

**3.1.4.2. 90-Day Period End Date**

3.1.4.2.1. Validates that the date is within the 2010 calendar year. A failure displays a message or redirect page indicating they must enter a date within the 2010 calendar year. Validates that the End Date is 90 days from the Begin Date.

3.1.4.3. **Are you using a Clinic's patient volume instead of individual volume? (Yes/No)**

**3.1.4.4. Have multiple outreach events been held within this 90 day period? (Yes/No)**

3.1.5. Determine the methodology that will be used for calculating patient volume. Only one option can be chosen and all fields are required for that one option.

**3.1.5.1. Page Notated: There are two methodologies for calculating Needy Patient Volume. The Encounter Option is based solely on the number of encounters as described above, and the Panel Option is based on the number of Needy Patients assigned in addition to the encounters. Only one method can be used.**

**3.1.5.2. Encounter Option**

**3.1.5.3. Total Patient Encounters**

**3.1.5.4. Needy Patient Encounters**

**3.1.5.5. Total**

3.1.5.5.1. The Encounter Option Total field is calculated with the formula:  $[\text{Needy Patient Encounters}] / [\text{Total Patient Encounters}] * 100$

3.1.5.5.2. If the formula validates to <30% the EP is redirected to a page with a description of why they are not eligible for the program.

**3.1.5.1. Panel Option**

**3.1.5.2. Total Patient Assigned**

**3.1.5.3. Needy Patient Assigned**

**3.1.5.4. Total Encounters**

**3.1.5.5. Needy Encounters**

**3.1.5.6. Total**

3.1.5.6.1. The Panel Option Total field is calculated with the formula:  $[\text{Needy Assigned}] + [\text{Needy Encounters}] / [\text{Total Assigned}] + [\text{Total Encounters}] * 100$

3.1.5.6.2. If the formula validates to <30% the EP is redirected to a page with a description of why they are not eligible for the program.

## 3.2. Medicaid Patient Volume

**3.2.1. Page Notated: Please provide the Patient Volume information in the fields below. The data can be calculated based on any continuous representative 90-day period in the 2010 calendar year. The following are considered “Medicaid Encounters”: (1) Services rendered on any one day to an individual where Medicaid paid for part or all of the service; or (2) Services rendered on any one day to an individual for where Medicaid paid all or part of their premiums, copayments, and/or cost-sharing.**

### 3.2.2. CHIP Percentage Tables (Download)

3.2.2.1. CHIP to Medicaid Frequency of Visits.xls file download.

3.2.3. Determines the 90-day reporting period

#### 3.2.3.1. 90-Day Period Begin Date

3.2.3.2. Validates that the date is within the 2010 calendar year. A failure displays a message or redirect page indicating they must enter a date within the 2010 calendar year.

#### 3.2.3.3. 90-Day Period End Date

3.2.3.4. Validates that the date is within the 2010 calendar year. A failure displays a message or redirect page indicating they must enter a date within the 2010 calendar year.

**3.2.3.5. Are you using a Clinic’s patient volume instead of individual volume?  
(Yes/No)**

**3.2.3.6. Have multiple outreach events been held within this 90 day period?**

3.2.4. Determine the methodology that will be used for calculating patient volume. Only one option can be chosen and all fields are required for that one option.

**3.2.4.1. Page Notated: There are two methodologies for calculating Medicaid Patient Volume. The Encounter Option is based solely on the number of encounters as described above, and the Panel Option is based on the number of Medicaid Patients assigned in addition to the encounters. Only one method can be used.**

#### 3.2.4.2. Encounter Option

**3.2.4.2.1. Total Patient Encounters**

**3.2.4.2.2. Medicaid Patient Encounters**

**3.2.4.2.2.1. Field Notated: The Medicaid Patient Volume must not include individuals covered under CHIP. For information on the**

**percentage of CHIP enrollees for a specific county, see the CHIP percentage table linked above.**

**3.2.4.2.3. Total**

3.2.4.2.3.1. The Encounter Option Total field is calculated with the formula: [Medicaid Patient Encounters] / [Total Patient Encounters] \* 100

3.2.4.2.3.2. If the formula validates to <30% the EP is redirected to a page with a description of why they are not eligible for the program.

**3.2.4.3. Panel Option**

**3.2.4.3.1. Total Patients Assigned Having at Least 1 Encounter during the Calendar Year Preceding the Start of the 90-Day Period**

**3.2.4.3.2. Medicaid Patient Assigned Having at Least 1 Encounter during the Calendar Year Preceding the Start of the 90-Day Period**

**3.2.4.3.3. Total Encounters**

**3.2.4.3.4. Medicaid Encounters**

3.2.4.3.4.1. Field Notated: **The Medicaid Patient Volume must not include individuals covered under CHIP. For information on the percentage of CHIP enrollees for a specific county, see the CHIP percentage table linked above.**

**3.2.4.3.5. Total**

3.2.4.3.5.1. The Panel Option Total field is calculated with the formula: [Medicaid Assigned] + [Medicaid Encounters] / [Total Assigned] + [Total Encounters] \* 100

3.2.4.3.5.2. If the formula validates to <30% the EP is redirected to a page with a description of why they are not eligible for the program.

3.2.4.3.5.3. Field Notated: **An EP must have at least 1 patient encounter in the calendar year preceding the 90 day reporting period.**

**3.3. Medicaid Patient Volume (Pediatricians)**

**3.3.1. Page Notated: Please provide the Patient Volume information in the fields below. The data can be calculated based on any continuous representative 90-day period in the 2010 calendar year. The following are considered “Medicaid Encounters”: (1) Services rendered on any one day to an individual where Medicaid paid for part or all of the service; or (2) Services rendered on any one day to an individual for where Medicaid paid all or part of their premiums, copayments, and/or cost-sharing.**

**3.3.2. CHIP Percentage Tables (Download)**

3.3.2.1. CHIP to Medicaid Frequency of Visits.xls file download.

**3.3.3. Determines the 90-day reporting period**

**3.3.3.1. 90-Day Period Begin Date**

3.3.3.1.1. Validates that the date is within the 2010 calendar year. A failure displays a message or redirect page indicating they must enter a date within the 2010 calendar year.

**3.3.3.2. 90-Day Period End Date**

3.3.3.2.1. Validates that the date is within the 2010 calendar year. A failure displays a message or redirect page indicating they must enter a date within the 2010 calendar year.

**3.3.3.3. Are you using a Clinic’s patient volume instead of individual volume?  
(Yes/No)**

**3.3.3.4. Have multiple outreach events been held within this 90 day period?**

3.3.4. Determine the methodology that will be used for calculating patient volume. Only one option can be chosen and all fields are required for that one option.

**3.3.4.1. Page Notated: There are two methodologies for calculating Medicaid Patient Volume. The Encounter Option is based solely on the number of encounters as described above, and the Panel Option is based on the number of Medicaid Patients assigned in addition to the encounters. Only one method can be used.**

**3.3.4.2. Encounter Option**

**3.3.4.2.1. Total Patient Encounters**

**3.3.4.2.2. Medicaid Patient Encounters**

**3.3.4.2.2.1. Field Notated: The Medicaid Patient Volume must not include individuals covered under CHIP. For information on the percentage of CHIP enrollees for a specific county, see the CHIP percentage table linked above.**

**3.3.4.2.3. Total**

3.3.4.2.3.1. The Encounter Option Total field is calculated with the formula: [Medicaid Patient Encounters] / [Total Patient Encounters] \* 100

3.3.4.2.3.2. If the formula validates to <20% the EP is redirected to a page with a description of why they are not eligible for the program.

3.3.4.2.3.3. If the field calculates to a total between = or > 20% and < 30%, then the Pediatric Payment Amount module is activated.

3.3.4.2.3.4. If the field calculates = or > than 30%, then the Eligible Professional Payment Amount module is activated.

**3.3.4.3. Panel Option**

**3.3.4.3.1. Total Patients Assigned Having at Least 1 Encounter during the Calendar Year Preceding the Start of the 90-Day Period**

**3.3.4.3.2. Medicaid Patients Assigned Having at Least 1 Encounter during the Calendar Year Preceding the Start of the 90-Day Period**

**3.3.4.3.3. Total Encounters**

**3.3.4.3.4. Medicaid Encounters**

**3.3.4.3.4.1.** Field Notated: **The Medicaid Patient Volume must not include individuals covered under CHIP. For information on the percentage of CHIP enrollees for a specific county, see the CHIP percentage table linked above.**

**3.3.4.3.5. Total**

3.3.4.3.5.1. The Panel Option Total field is calculated with the formula:  $[\text{Medicaid Assigned}] + [\text{Medicaid Encounters}] / [\text{Total Assigned}] + [\text{Total Encounters}] * 100$

3.3.4.3.5.2. If the formula validates to <20% the EP is redirected to a page with a description of why they are not eligible for the program.

3.3.4.3.5.3. If the field calculates to a total = or > 20% and < 30%, then the Pediatric Payment Amount module is activated.

3.3.4.3.5.4. If the field calculates = or > 30%, then the Eligible Professional Payment Amount module is activated.

3.3.4.3.5.5. Field Notated: **An EP must have at least 1 patient encounter in the calendar year preceding the 90 day reporting period.**

**3.4. Hospital Patient Volume**

**3.4.1. Page Notated: Please provide the Patient Volume information in the fields below. The data can be calculated based on any continuous representative 90-day period in the previous Federal Fiscal Year. (1) Services rendered to an individual per inpatient discharge where Medicaid paid for part or all of the service; (2) Services rendered to an individual per inpatient discharge where Medicaid paid all or part of their premiums, co-payments, and/or cost-sharing; (3) Services rendered to an individual in an emergency department on any one day where Medicaid either paid for part or all of the service; or (4) Services rendered to an individual in an emergency department on any one day where Medicaid paid all or part of their premiums, co-payments, and/or cost-sharing**

**3.4.2. CHIP Percentage Tables (Download)**

3.4.2.1. CHIP to Medicaid Frequency of Visits.xls file download.

**3.4.3. Determine 90-day reporting period**

**3.4.3.1. 90-Day Period Begin Date**

3.4.3.1.1. Validates that the date is within the 2010 fiscal year. A failure displays a message or redirect page indicating they must enter a date within the 2010 fiscal year.

**3.4.3.2. 90-Day Period End Date**

3.4.3.2.1. Validates that the date is within the 2010 fiscal year. A failure displays a message or redirect page indicating they must enter a date within the 2010 fiscal year. Validates that the End Date is 90 days from the Begin Date.

**3.4.3.3. Are you using a Clinic's patient volume instead of individual volume?  
(Yes/No)**

**3.4.3.4. Have multiple outreach events been held within this 90-day period? (Yes/No)**

**3.4.4. Total Patient Encounters**

**3.4.5. Medicaid Patient Encounters**

**3.4.5.1. Field Notated: The Medicaid Patient Volume must not include individuals covered under CHIP. For information on the percentage of CHIP enrollees for a specific county, see the CHIP percentage table linked above.**

**3.4.6. Total**

3.4.6.1. The Encounter Option Total field is calculated with the formula: [Medicaid Patient Encounters] / [Total Patient Encounters] \* 100

3.4.6.1.1. If the formula validates to <10% the EH is redirected to a page with a description of why they are not eligible for the program.

**4. Attestation Data**

**4.1. Adopt, Implement or Upgrade**

**4.1.1. Page Notated: For the purposes of demonstrating that providers adopted, implemented, or upgraded certified EHR technology, Medicaid EPs and EHs must attest to having adopted (that is, acquired, purchased, or secured access to) certified EHR technology; or installed or commenced utilization of (that is, implemented) certified EHR technology; or expanded (that is, upgraded) the available functionality of certified EHR technology and commenced utilization at their practice site. In order to qualify for first year payment under the Adopt, Implement or Upgrade option, please choose one section below to complete.**

**4.1.2. EHR Vendor Name**

**4.1.3. EHR Product Name**

**4.1.4. EHR Certification Number**

4.1.4.1.1. The NLR will provide this number for those EPs and EHs that enter it into the NLR registration site. All others must enter it here.

4.1.4.1.2. All valid EHR Certification numbers are posted on the ONC Certified HIT Products List: <http://onc-chpl.force.com/ehrcert>. This field should validate against that list.

4.1.5. Determine Adopt, Implement or Upgrade. Only one option is needed

**4.1.5.1. Adopt**

4.1.5.1.1. Field Notated: **There must be evidence that demonstrates actual acquisition, purchase, or access to certified EHR technology prior to the incentive. This evidence would serve to differentiate between activities that may not result in installation (for example, researching EHRs or interviewing EHR vendors) and actual purchase/acquisition or installation.**

4.1.5.1.2. **Vendor Contract or Proof of Purchase (Attachment)**

#### 4.1.5.2. Implement

**4.1.5.2.1. Field Notated: Implementation means the EP or EH has installed or commenced utilization of certified EHR technology and has started using the certified EHR technology in his or her clinical practice.**

#### 4.1.5.2.2. Type of Implementation

**4.1.5.2.2.1. Staff Training**

**4.1.5.2.2.2. Data Entry of Patient Demographics**

**4.1.5.2.2.3. Data Entry of Administrative Data**

**4.1.5.2.2.4. Established Data Exchange Agreements**

**4.1.5.2.2.5. Other**

**4.1.5.2.3. Description if “Other”**

**4.1.5.2.4. Documentation of Implementation Activity (Attachment)**

#### 4.1.5.3. Upgrade

**4.1.5.3.1. Field Notated: An upgraded EHR means the expansion of the functionality of the certified EHR technology, such as the addition of clinical decision support, e-prescribing functionality, CPOE or other enhancements that facilitate the meaningful use of certified EHR technology.**

**4.1.5.3.2. Description of Upgrade**

**4.1.5.3.3. Vendor Contract or Proof of Purchase (Attachment)**

### 4.2. Meaningful Use

**4.2.1. The required Core and Menu sets of Stage 1 Meaningful have been met.**

**4.2.1.1. Field Notated: The Stage 1 meaningful use criteria focuses on electronically capturing health information in a structured format; using that information to track key clinical conditions and communicating that information for care coordination purposes; implementing clinical decision support tools to facilitate disease and medication management; using EHRs to engage patients and families and reporting clinical quality measures and public health information. Stage 1 focuses heavily on establishing the functionalities in certified EHR technology that will allow for continuous quality improvement and ease of information exchange. Please see Section II.A.2 of the EHR Incentive Program Final Rule for details on Meaningful Use criteria.**

#### 4.2.2. Clinical Quality Measures

##### 4.2.2.1. Year 1

**4.2.2.1.1. Do you plan to report Clinical Quality Measures for Payment Year 1? (Yes/No)**

**4.2.2.1.2. Clinical Quality Measures Template.xls For EPs (Download)**

**4.2.2.1.3. Clinical Quality Measures Template.xls for EHs (Download)**

**4.2.2.1.4. Completed Clinical Quality Measures File (Attachment)**

##### 4.2.2.2. Year 2 – 6 TBD

### 5. Payment Data

## 5.1. Payment Reassignment

**5.1.1. Page Notated: The Eligible Professional may reassign his or her incentive payment to an employer or entity with which the EP has a contractual arrangement, consistent with all rules governing reassignments including CFR Part 424, subpart F. By requesting a reassignment of incentive payment, an EP is attesting that such reassignment is consistent with applicable Medicare laws, rules, and regulations, including, without limitation, those related to fraud, waste, and abuse. It is recommended that the EP and an employer or entity with which the EP has a contractual arrangement review their existing contract(s) to determine whether the contract(s) currently provides for reassignment of the incentive payment or if the contract(s) need to be revised.**

**5.1.1.1.** The hyperlink for the 42 CFR Part 424 Subpart F is:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=2b5224ca37fd6ff7dec1989acf294e17&rgn=div6&view=text&n ode=42:3.0.1.1.11.6&idno=42>

5.1.2. Determine the Contact Information for the designated payee

**5.1.2.1. Reassigned Payee Name**

**5.1.2.2. Reassigned Payee TIN**

**5.1.2.3. Reassigned Contact Person**

**5.1.2.4. Reassigned Contact Street Address**

**5.1.2.5. Reassigned Contact State and ZIP**

**5.1.2.6. Reassigned Contact Phone Number**

**5.1.2.7. Reassigned Contact E-mail Address**

5.1.3. Determine whether the designated payee is an enrolled Medicaid Provider

**5.1.3.1. Enrolled Medicaid Provider (Yes/No)**

5.1.3.1.1. If the applicant answers “No”, then they will be redirected to a page explaining why they are not eligible and instructions on how to become an Enrolled Medicaid Provider.

5.1.4. The provider attests to a working relationship between the EP and the designated payee.

**5.1.4.1. A valid employment agreement or contract providing for reassignment of payments exists between the Eligible Professional and the Designated Payee. (Checkbox)**

5.2. Payment Amounts

**5.2.1. EP Payment Amount**

**5.2.1.1. Page Notated: The average allowable costs for each EP must be adjusted in order to subtract any payment that is made to the EP and is directly attributable to payment for certified EHR technology or support services of such technology. The only exception to this requirement is that payments from state or local governments do not reduce the average allowable costs. The resulting figure is the net average allowable costs. Medicaid eligible professionals can receive**

**85 percent of their individually-calculated net average allowable cost up to a defined maximum. In Payment Year One the maximum net average allowable cost is \$25,000 and in subsequent years is \$10,000. Medicaid EPs are responsible for the remaining 15 percent of the net average allowable cost.**

**5.2.1.2. Average Allowable Cost = \$54,000 (Not Editable)**

**5.2.1.3. Amount of EHR Funds from Other Sources**

**5.2.1.3.1. Field Notated: This field will be zero, unless you have received a cash payment that is directly attributable to you, the eligible professional, for certified EHR technology or support services of such technology. The cash payment must be directly attributable to you solely for the purpose of certified EHR technology. DO NOT INCLUDE: (1) Any payments received from state or local governments. (2) In-kind contributions of EHR hardware/software. (3) Employer provided EHR technology. (4) Grants received that are not solely for certified EHR technology**

**5.2.1.4. Amount of EHR Funds provided by EP**

**5.2.1.4.1. Field Notated: The funds provided by the EP can include, but are not limited to, those provided through employer/employee relationship, certain grants, and in-kind contributions, costs related to the providers' efforts to address workflow redesign and training to facilitate meaningful use of EHRs.**

**5.2.1.5. Net Average Allowable Cost**

**5.2.1.5.1. Calculated field [Average Allowable Cost]-[Amount of Other Sources]**

**5.2.1.6. Net Incentive Amount**

**5.2.1.6.1. Calculated field: IF([Net Allowable Cost]>25000,25000,[Net Allowable Cost])**

**5.2.1.7. Payment Amount**

**5.2.1.7.1. Calculated field: [Net Incentive Amount]\*.85**

**5.2.1.8. EP Responsibility**

**5.2.1.8.1. Calculated field: [Amount of EP Funds]/[Net Incentive Amount]**

**5.2.1.8.1.1. Percent Format**

**5.2.1.8.1.2. Field Notated: An EP must be responsible for at least 15% of the Net Average Allowable Cost.**

**5.2.1.8.1.3. If this field validates at less than 15% the user is redirected a page explaining why they are ineligible for participation.**

**5.2.2. EP Payment Amount (Pediatrician with Reduced Volume)**

**5.2.2.1. Page Notated: The average allowable costs for each EP must be adjusted in order to subtract any payment that is made to the EP and is directly attributable to payment for certified EHR technology or support services of such technology. The only exception to this requirement is that payments from state or local governments do not**

reduce the average allowable costs. The resulting figure is the net average allowable costs. Medicaid EPs can receive 85 percent of their calculated net average allowable cost. A pediatrician with a Medicaid patient volume of at least 20 percent and less than 30 percent can receive two-thirds of the maximum. In Payment Year One, the maximum net average allowable cost for these pediatricians with reduced Medicaid volume is \$16,667 and in subsequent years is \$6,667. Medicaid EPs are responsible for the remaining 15 percent of the net average allowable cost.

**5.2.2.2. Average Allowable Cost = \$54,000 (Not Editable)**

**5.2.2.3. Amount of EHR Funds from Other Sources**

**5.2.2.3.1. Field notated: This field will be zero, unless you have received a cash payment that is directly attributable to you, the eligible professional, for certified EHR technology or support services of such technology. The cash payment must be directly attributable to you solely for the purpose of certified EHR technology. DO NOT INCLUDE: (1) Any payments received from state or local governments. (2) In-kind contributions of EHR hardware/software. (3) Employer provided EHR technology. (4) Grants received that are not solely for certified EHR technology**

**5.2.2.4. Amount of EHR Funds provided by EP**

**5.2.2.4.1. Field Notated: The funds provided by the EP can include, but are not limited to, those provided through employer/employee relationship, certain grants, and in-kind contributions, costs related to the providers' efforts to address workflow redesign and training to facilitate meaningful use of EHRs.**

**5.2.2.5. Net Average Allowable Cost**

**5.2.2.5.1. Calculated field [Average Allowable Cost]-[Amount of Other Sources]**

**5.2.2.6. Net Incentive Amount**

**5.2.2.6.1. Calculated field: IF([Net Allowable Cost]>16667,16667,[Net Allowable Cost])**

**5.2.2.7. Payment Amount**

**5.2.2.7.1. Calculated field: [Net Incentive Amount]\*.85**

**5.2.2.8. EP Responsibility**

**5.2.2.8.1. Calculated field: [Amount of EP Funds]/[Net Incentive Amount]**

**5.2.2.8.1.1. Percent Format**

**5.2.2.8.1.2. Field Notated: An EP must be responsible for at least 15% of the Net Incentive Amount.**

**5.2.2.8.1.3. If this field validates at less than 15% the user is redirected a page explaining why they are ineligible for participation.**

### **5.3. Payment Summary**

#### **5.3.1. List of EHR Incentive Payments (Table)**

5.3.1.1. This table shows any EHR Incentive payments made to the provider or hospital from our state MMIS system.

- 6. Notifications and Instructions Redirect Screens TBD
  - 6.1. Registration Email Confirmation TBD
  - 6.2. Medicaid Enrollment Instructions TBD
  - 6.3. Not Eligible for EHR Program Notification TBD

## Appendix F: H\*4446

**AN ACT TO AMEND SECTION 44-29-210, CODE OF LAWS OF SOUTH CAROLINA, 1976, RELATING TO MASS IMMUNIZATION PROJECTS APPROVED BY THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL AND THE PARTICIPATION OF MEDICAL PERSONNEL IN THESE PROJECTS, SO AS TO PROVIDE THAT LICENSED NURSES, RATHER THAN REGISTERED NURSES, ARE INCLUDED IN THE PERSONNEL WHO MAY PARTICIPATE IN THESE PROJECTS AND WHO ARE EXEMPT FROM LIABILITY; AND TO AMEND SECTION 44-29-40, RELATING TO THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL HAVING GENERAL SUPERVISION OVER VACCINATION, SCREENING, AND IMMUNIZATION, SO AS TO REQUIRE THE DEPARTMENT TO ESTABLISH A STATEWIDE IMMUNIZATION REGISTRY, TO REQUIRE HEALTH CARE PROVIDERS TO REPORT THE ADMINISTRATION OF IMMUNIZATIONS TO THE DEPARTMENT, AND TO PROVIDE CIVIL PENALTIES FOR VIOLATIONS.**

Be it enacted by the General Assembly of the State of South Carolina:

### **Medical personnel authorized to participate in mass immunization projects are exempt from liability**

SECTION 1. Section 44-29-210 of the 1976 Code is amended to read:

"Section 44-29-210. (A) If the Board of the Department of Health and Environmental Control or the Director of the Department of Health and Environmental Control approves in writing a mass immunization project to be administered in any part of this State in cooperation with an official or volunteer medical or health agency, any authorized employee of the agency, any physician who does not receive compensation for his services in the project, and any licensed nurse who participates in the project, except as provided in subsection (B), is not liable to any person for illness, reaction, or adverse effect arising from or out of the use of any drug or vaccine administered in the project by the employee, physician, or nurse. Neither the board nor the director may approve the project unless either finds that the project conforms to good medical and public health practice.

For purposes of this section, a person is considered to be an authorized employee of an official or volunteer medical or health agency if he has received the necessary training for and approval of the department for participation in the project.

(B) Nothing in this section exempts any physician, licensed nurse, or authorized public health employee participating in any mass immunization project from liability for gross negligence, and the provisions of this section do not exempt any drug manufacturer from any liability for any drug or vaccine used in the project."

### **Immunization registry to be established**

SECTION 2. Section 44-29-40 of the 1976 Code is amended to read:

"Section 44-29-40. (A) The Department of Health and Environmental Control shall have general direction and supervision of vaccination, screening, and immunization in this State. The Department of Health and Environmental Control has the authority to promulgate regulations concerning vaccination, screening, and immunization requirements.

(B) The department shall establish a statewide immunization registry and shall promulgate regulations for the implementation and operation of the registry. All health care providers shall report to the department the administration of any immunization in a manner and including such data as specified by the department. The department may make immunization information available to persons and organizations in accordance with state and federal disclosure and reporting laws. The department may seek enforcement of this section and issue civil penalties in accordance with Section 44-1-150."

### **Time effective**

SECTION 3. This act takes effect upon approval by the Governor.

Ratified the 25th day of May, 2010.

Became law without the signature of the Governor -- 6/1/2010.

## Appendix G: Eligible Hospital Charity Care Filing Documentation

South Carolina Department of Health and Human Services  
Bureau of Reimbursement Methodology and Policy  
Division of Acute Care Reimbursements  
HFY \_\_\_\_\_ Inpatient Charity Care Filing  
For EHR Incentive Payment Calculation Purposes

Hospital: \_\_\_\_\_

In order to calculate your hospital's EHR incentive payment, we need the following inpatient hospital charity care information provided electronically via an excel spreadsheet to include the following data fields from the UB 04.

Form Locator	Line	
FL03a		Patient Number
FL06	1	Period
FL09	2c	State
FL09	2d	Zip
FL12	1	Admission Date
FL47	1-22	Hospital Charge (appropriate Rev codes)
FL47	1-22	Physician Charge (appropriate Rev codes)
FL47	23	Total Charges
FL50	A	Payer ID
FL50	B	Payer ID
FL50	C	Payer ID
FL51	A	Payer ID Number
FL51	B	Payer ID Number
FL51	C	Payer ID Number

In addition to the above data fields, each account must also include the following information:

Hospital Cash Received  
Hospital Adjustment

Physician Cash Received  
Physician Adjustment

Current Balance on  
Account

**I hereby certify that I have examined the information furnished on this form, and that to the best of my knowledge and belief, it is a true, complete and accurate representation of the hospital records. Supporting documentation will be available at the hospital for SCDHHS review.**

**Authorized Representative's Signature and Date**

---

**Contact Person Name (PRINT) and Phone Number**

---

**Contact Person E-Mail Address**

---

## **Appendix H: Medicaid Appeals Regulations**

### CHAPTER 126.

#### DEPARTMENT OF HEALTH AND HUMAN SERVICES

(Statutory Authority: 1976 Code Section 44-6-90)

#### ARTICLE 1.

#### ADMINISTRATION

#### SUBARTICLE 3.

#### APPEALS AND HEARINGS

##### 126-150. Definitions.

- A. Agency--The Department of Health and Human Services and its employees.
- B. Appeal--The formal process of review and adjudication of Agency determinations, which shall be afforded to any person possessing a right to appeal pursuant to statutory, regulatory and/or contractual law; Provided, that to the extent that an appellant's appellate rights are in any way limited by contract with the Agency or assigned to the Agency, said contractual provision shall control.
- C. Hearing Officer--Any Agency employee appointed by the Director to make Decisions either affirming or reversing Agency program determinations by setting forth findings of fact and conclusions of law in appeals arising under this regulation.
- D. Person--An individual, partnership, corporation, association, governmental subdivision, or public or private agency or organization.
- E. Provider--A person who provides services to individuals under programs administered by the Agency.

##### 126-152. Appeal Procedure.

- A. An appeal shall be initiated by the filing of a notice of appeal within thirty (30) days of written notice of the Agency action or decision which forms the basis of the appeal. The failure to file the requisite notice of appeal within the thirty (30) day period specified above shall render the Agency action or decision final; provided, that should the written notice specify some period to appeal other than thirty (30) days, that period shall apply; provided, that the requirement that written notice be given by the Agency shall not be applicable to situations where applicants for

Medicaid benefits acquire the right to appeal when the Agency fails to act on the application within the time period specified by federal regulation.

B. The notice of appeal shall be in writing and shall be directed to Appeals and Hearings, Department of Health and Human Services, Post Office Box 8206, Columbia, South Carolina 29202-8206. In appeals by providers, the notice of appeal shall state with specificity the adjustment(s) or disallowance(s) in question, the nature of the Issue(s) in contest, the jurisdictional basis of the appeal and the legal authority upon which the appellant relies.

C. If a notice of appeal does not satisfy the requirements of paragraph (B) above, the Hearing Officer, upon his own motion or by motion by an adverse party, may require a more definite and certain statement.

126-154. Hearing Officer.

A Hearing Officer has the authority, among other things to: direct all procedures; issue interlocutory orders; schedule hearings and conferences; preside at formal proceedings; rule on procedural and evidentiary issues; require the submission of briefs and/or proposed findings of fact and conclusions of law; call witnesses and cross-examine any witnesses; recess, continue, and conclude any proceedings; dismiss any appeal for failure to comply with requirements under this Subarticle.

126-156. Prehearing Conferences.

The Hearing Officer, within his discretion, may direct the parties in any appeal to meet prior to a formal hearing for the purpose of narrowing the issues and exploring the possibilities of settlement of matters in contest.

126-158. Hearing Procedures.

A. All parties to an appeal shall have the right to be represented by counsel, call witnesses, submit documentary evidence, cross-examine the witnesses of an adverse party, and make opening and closing statements.

B. Representation in Proceedings. A business entity, an agency, or an organization may elect to be represented by a non-attorney in an administrative hearing with the approval of the presiding hearing officer; non-lawyer persons including Certified Public Accountants, an officer of a corporation, or an owner of an interest in the business entity must present proof of unanimous consent of the owners or officers of the business entity before being allowed to proceed as representatives. Attorneys licensed in other jurisdictions must obtain a Limited Certificate of Admission, or such other leave as required by the South Carolina Supreme Court, before being allowed to proceed as representatives. This regulation in no way limits a person's right to self-representation, or to be represented by an attorney, or to be

represented by a non-attorney of his or her own choosing, when such non-attorney representation is allowed by law.