HEALTH INFORMATION TECHNOLOGY

Legislative Report
(January 15, 2015)
Session Law 2013 – 360, SECTION 12A.3.(c)

The Senate Appropriations Committee on Health and Human Services
and
The House of Representatives Appropriations Subcommittee on Health and Human Services
and
The Fiscal Research Division

Prepared by:
North Carolina Department of Health and Human Services
Office of Health Information Technology
January 15, 2015

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Legislative Report

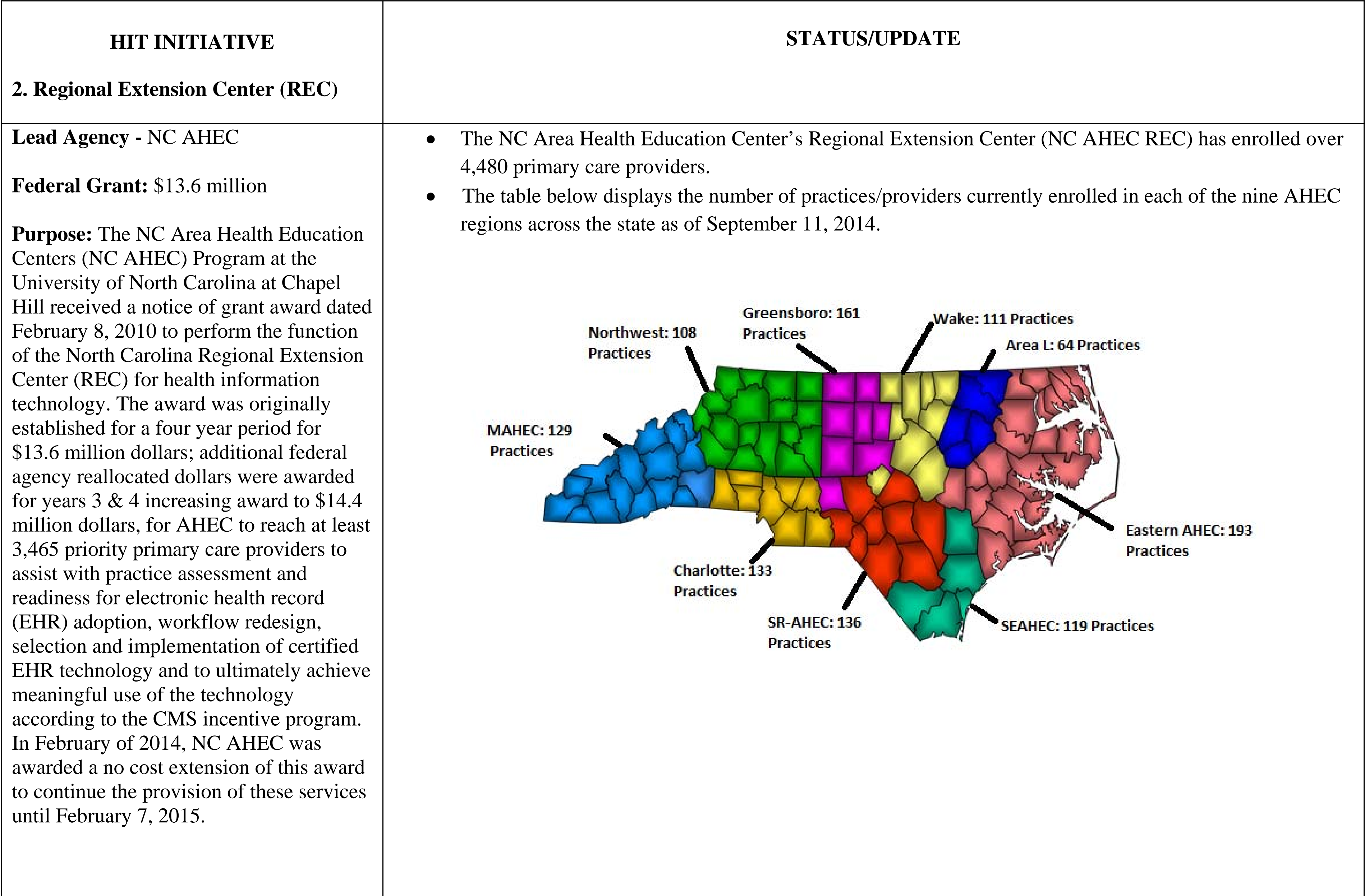
Purpose:

This report is to fulfill the legislative requirement, as set forth in SL 2013 – 360, SECTION 12A.3.(c) that DHHS make a report on the status of Health Information Technology (HIT) activities. In conformance with the law, this report is being provided to: The Senate Appropriations Committee on Health and Human Services, the House of Representatives Appropriations Subcommittee on Health and Human Services and the Fiscal Research Division of the General Assembly.

Background:

Improved health information systems are essential to the goal of transforming healthcare and improving health outcomes. NC is consistently viewed as a state leader both in terms of existing healthcare partnerships and innovative models of care. NC continues to demonstrate successful strategies that achieve the triple aim of better health, better care and lower costs. The Office of Health Information Technology was established in the Secretary's Office of the NC Department of Health and Human Services in June 2010 for the purpose of coordinating HIT initiatives statewide and reporting progress to the Governor's Office and the NC General Assembly.

HIT INITIATIVE 1. Health Information Exchange (HIE)	STATUS/UPDATE
Lead Agency - NC HIE **Federal Grant:** $12.9 million $1.7 million Supplemental Challenge Grant **Purpose:** Establish a technology infrastructure and policy framework for connecting the various components of the healthcare ecosystem to allow the secure exchange of patient health information between participating healthcare providers and hospitals statewide.	• NC HIE has 3,617 users in the HIE network. • NC HIE currently has 991,303 unique patient lives in the HIE network. • There are 35 hospitals contracted to participate in the HIE network. • The NC HIE continues to make significant progress in its effort to electronically connect North Carolina's healthcare systems. In November 2014, six hospitals went on the NC HIE joining another six that went live in October. These connections will enable providers at these facilities to access health information on their patients from other HIE-connected systems including summary records, patient demographics, problems, previous diagnoses, allergies, procedures, medications and laboratory results. • There are approximately 900 ambulatory clinics and practices contracted to participate in the HIE network. • There are 17 hospital facilities utilizing the NC HIE for DIRECT services. • In October 2014, the NC Path program shifted from its enrollment phase to steady-state operations where program management staff will work more closely with participants on quality and usability of the system. • NC HIE will complete connectivity to the national eHealth Exchange in December 2014. • NC HIE has entered into a Data Sharing Agreement with DHHS. This information has been reported to the Joint Legislative Oversight Committee on Health and Human Services. • The NC HIE is working with public health on pilots for the statewide Immunization Registry and Electronic Lab Reporting systems.



HIT INITIATIVE **2. Regional Extension Center (REC)**	**STATUS/UPDATE**
Lead Agency - NC AHEC **Federal Grant:** $13.6 million **Purpose:** The NC Area Health Education Centers (NC AHEC) Program at the University of North Carolina at Chapel Hill received a notice of grant award dated February 8, 2010 to perform the function of the North Carolina Regional Extension Center (REC) for health information technology. The award was originally established for a four year period for $13.6 million dollars; additional federal agency reallocated dollars were awarded for years 3 & 4 increasing award to $14.4 million dollars, for AHEC to reach at least 3,465 priority primary care providers to assist with practice assessment and readiness for electronic health record (EHR) adoption, workflow redesign, selection and implementation of certified EHR technology and to ultimately achieve meaningful use of the technology according to the CMS incentive program. In February of 2014, NC AHEC was awarded a no cost extension of this award to continue the provision of these services until February 7, 2015.	• The NC Area Health Education Center's Regional Extension Center (NC AHEC REC) has enrolled over 4,480 primary care providers. • The table below displays the number of practices/providers currently enrolled in each of the nine AHEC regions across the state as of September 11, 2014.

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<tr><th>HIT INITIATIVE

2. Regional Extension Center (REC)</th><th>STATUS/UPDATE</th></tr>
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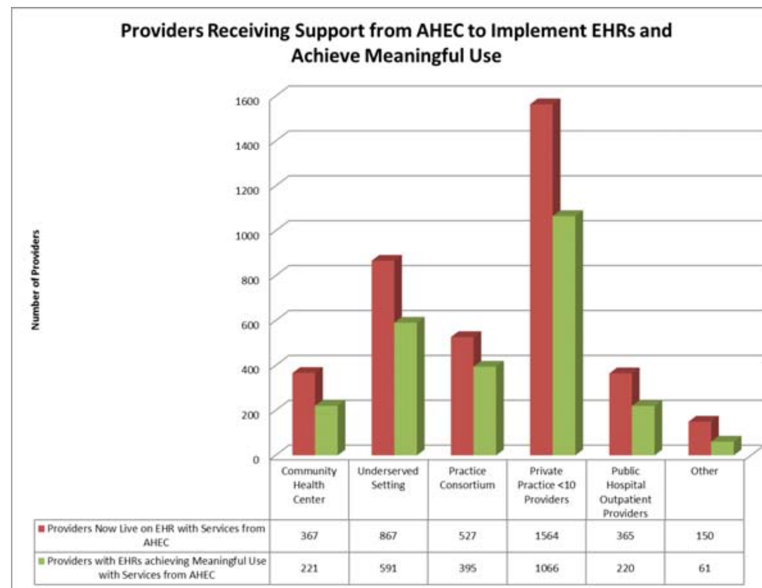
The graph below represents the number of providers served by AHEC that have fully implemented EHRs and achieved meaningful use by the type of practice setting as established by the Office of the National Coordinator.



- The NC AHEC Regional Extension Center was funded entirely through the federal grant from the Office of the National Coordinator (ONC) as part of the HITECH Act. The NC AHEC Program contributed existing state appropriated funds to meet the 10% match requirement. Going forward, NC AHEC will work with the NC Division of Medical Assistance to continue to provide EHR and meaningful use support services to providers across the state through the use of the HITECH funds.

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HIT INITIATIVE 2. Regional Extension Center (REC)	STATUS/UPDATE
	• The NC AHEC Program works hard to partner and coordinate with all initiatives and stakeholders within the state. We work closely with the NC Health Information Exchange to help providers understand the services and resources available to them through the use of the NC HIE. We also collaborate with all of the other HIE's across the state to ensure that we can support providers to connect and exchange data with any entity of their choice. We supported more than 40 local health departments across the state to help them assess their needs and evaluate and/or implement an EHR system. We also participate regularly with the Safety Net Providers HIE Workgroup to support all safety net providers in acquiring the ability to collect and exchange health information. • The NC AHEC Program is able to continue to enroll providers from across the state to receive services to support their implementation and meaningful use of EHR systems. The funding from for the Regional Extension Center services from Office of the National Coordinator will end on February 7, 2015, however the NC AHEC Program will continue its mission to support providers in this area in partnership with the NC Division of Medical Assistance with funding from the HITECH Act coming into the state of NC.

HIT INITIATIVE **3. Beacon Community Grant**	**STATUS/UPDATE**
Lead Agency – Southern Piedmont Community Care Plan (SPCCP) **Federal Grant:** $15.9 million **Purpose:** The Beacon Community Cooperative Agreement Program provides communities with funding to build and strengthen their health IT infrastructure and exchange capabilities. These communities demonstrate the vision of a future where hospitals, clinicians, and patients are meaningful users of health IT, and together, help the community achieve measurable improvements in health care quality, safety, efficiency, and population health. The Southern Piedmont Community Care Plan (SPCCP) is one of 14 independent networks of Community Care of North Carolina and one of only 17 organizations nationwide selected to be a Beacon Community. The overall goal of the Beacon program is to leverage **Community Care of North Carolina's (CCNC's)** patient-centered medical home model, health information technology and innovative	Funding for the Beacon Community Grant ended September 30, 2013. During the three and one-half years of the grant, nearly thirty innovative health projects were piloted in Cabarrus, Rowan, and Stanly counties, and many of the people hired and the projects implemented continue today. Southern Piedmont Beacon Community accomplished the following with the $15.9 million in funding: • Beacon Program Pillar 1. Build and Strengthen Health IT Infrastructure Southern Piedmont significantly increased the reach and functionality of the CCNC Informatics Center, which supports a network of care managers who serve Medicaid patients across the state. Southern Piedmont successfully added real-time hospital admission, discharge, and transfer (ADT) feeds from Carolinas Medical Center-North East (CMC-NE), Novant Health Rowan Medical Center (NHRMC) and Stanly Regional Medical Center (SRMC), from public health and primary care records. This new data, in addition to the existing Medicaid, pharmacy, and laboratory data, will support care coordination initiatives across North Carolina. Southern Piedmont developed an enhanced version of the clinical decision support (CDS) tool that detects gaps in care and excessive utilization of services. Notifications regarding care gaps are now detected weekly for the 60,000 Medicaid beneficiaries residing in the region and communicated to care managers and clinicians via existing reporting and viewing applications that are part of the CCNC care management user resources. These decision support tools are integrated with CCNC, allowing for detection of health issues for an additional 1.2 million Medicaid beneficiaries living in North Carolina. • Beacon Program Pillar 2. Improve Cost, Quality and Population Health The Southern Piedmont Beacon Community (Southern Piedmont) has successfully implemented transitional care projects at CMC-NE, NHRMC, and SRMC by embedding care managers, clinical pharmacists, social workers, disease-specific educators, and medication

HIT INITIATIVE **3. Beacon Community Grant**	STATUS/UPDATE
interventions to improve care coordination, encourage patient activation (involvement in their medical care), and improve health outcomes in a high quality, cost-effective manner. The projects each Health System and Health Department/Alliance are engaging in will lead to: o Increasing health information exchange between providers, hospitals, and other appropriate o stakeholders; o Decreasing inappropriate emergency department (ED) utilization; o Decreasing preventable hospital readmissions; o Improving chronic care disease management for those with congestive heart failure (CHF), diabetes and asthma; o Improving public health.	technicians in hospitals and provider practices. As of the end of the program, ED social workers have provided services and resource information to 4,471 patients and the transitional care teams have helped coordinate the care for 4,494 patients and have completed 413 home visits. A seasonal comparison within the Medicaid population of Southern Piedmont demonstrates a decrease in the preventable readmission rate from 13.6% in Q2 2011 to 9.1% in Q2 2013. Due to the success of these care coordination activities, several care managers and social workers are being sustained across the hospital system. To provide continuity of care for patients with chronic respiratory disease, Southern Piedmont implemented a standardized disease management program at CMC-NE that followed the COPD patient throughout the continuum of care (ED-Inpatient-Medical Home). The program has been highly successful and as of July 2013, 5,671 patients have been screened with 25% found to be high risk for COPD. Results continue to show a 25% decrease in COPD related re-admissions. This work was presented at the Institute for Healthcare Improvement (IHI) 25th Annual National Forum on Quality Improvement in Health Care in December 2013. • Beacon Program Pillar 3. Test Innovative Approaches Southern Piedmont successfully developed “Anna”, an automated health educator providing tailored patient education on resources and benefits. Initially deployed via a kiosk to provide new Women and Infant Children (WIC) participants about the use of the WIC program and associated benefits, the avatar has moved to a web-based platform and has been expanded to incorporate a health educator role for breastfeeding and family planning. Across all three-health departments, 165 WIC participants used Anna and participated in the acceptability and learning evaluations, revealing high scores for usability. Anna appears to be a viable platform to conduct health education.

HIT INITIATIVE **4. Broadband Technology Opportunities Program (BTOP) Round 1 and Round 2**	STATUS/UPDATE
Lead Agency – Microelectronics Center of North Carolina (MCNC) **Federal Grant:** $144M total: $40M in private match, $7.7M from MCNC Endowment, $24M Golden Leaf Foundation, $0 state or county investments. **Purpose:** These programs will expand the North Carolina Research and Education Network (NCREN) to provide improved connectivity and internet capacity to rural counties all across NC using a “middle mile” strategy that will decrease the cost of improved internet services to end users. Local hospitals, public health departments and community health centers will become anchor institutions for broadband connectivity services in their communities. NC received funding in both BTOP Round 1 and Round 2.	• BTOP Round 2 Update: In August of 2013 MCNC completed all construction related to the BTOP project. At the culmination of the project MCNC had built 1750 miles of fiber and acquired an additional 650 miles of fiber in the operation of NCREN. Through the course of the two projects MCNC enabled direct fiber to 194 Community Anchor Institutions across the state of North Caroline while completing the projects under budget and on time as required by the National Technology Information Administration. • North Carolina Telehealth Network: As of 7/2014, the NCTN serves 128 sites including - 50 public health sites , 35 hospitals(2 with redundant services), 21 mental health clinics; 8 Federally Qualified Health Centers, and 14 other non-profit clinics. The project is in an expansion phase with support from the new FCC Healthcare Connect Fund. There are 130 new sites expected to subscribe in the next few months with more to follow.

HIT INITIATIVE **5. Workforce Development in HIT**	**STATUS/UPDATE**
Lead Agency – Pitt Community College (Training) and Duke University (Curriculum) **Federal Grant:** Training Grant - $21.1 million for the 13 state region, (Southeastern United States Region D) **Purpose:** In April 2010, the Office of the National Coordinator for Health Information Technology chose Pitt Community College to lead a regional HIT Workforce Training Consortium tasked with addressing the growing need for HIT training. Through the project, five universities, including Duke University, developed a six-month non-degree community college curriculum to prepare workers for HIT roles to implement electronic health records. 82 community colleges across the country are offering the HIT training online. Students receive training in six HIT priority workforce roles: practice workflow and information management redesign specialists; clinician/practitioner consultants; implementation support specialists; implementation managers; and technical/software support staff and trainers.	As of September 31, 2013, Region D (composed of 13 states) had enrolled 10,393 students in this program. Of these students, 4,541 (44%) have completed the program and 782 students that have completed the program. • North Carolina originally had three participating community colleges (Catawba Valley Community College, Central Piedmont Community College and Pitt Community College). As of April 2, 2013, Central Piedmont Community College (CPCC) and Pitt Community College (PCC) remained in the program. Each member college had a goal of 300 completers. As of September 31, 2013, Central Piedmont Community College had 378 and Pitt Community College had 294. The North Carolina community colleges combined to have 782 completers. • NC member colleges' completion rate was 4.75% higher than the region average and its attrition rate was 4.76% lower than the region average. Central Piedmont Community College had the highest number of completers for our state with 370 completers, while Pitt Community College had 294 and Catawba Valley Community College had 118. CPCC was third in the region for highest numbers of completers with PCC being fifth in the region. PCC had the fifth lowest attrition count in the region.

HIT INITIATIVE **6. NC Medicaid Electronic Health Record (EHR) Incentive Program**	STATUS/UPDATE
Lead Agency – NC Division of Medical Assistance (DMA) **Federal Grant:** Medicaid HIT Implementation Grant $331M ($299M 100% federal; $32M 90%/10% federal/state) **Purpose:** The ultimate goal of the NC Medicaid Electronic Health Record (EHR) Incentive Program is to encourage eligible Medicaid providers to adopt, implement or upgrade to certified EHR technology, and then demonstrate meaningful use of that technology. This fundamental shift to the meaningful use of EHR technology will: o Improve quality, safety, and efficiency of patient care; o Reduce health disparities; o Engage patients and families in their healthcare; o Improve care coordination; o Improve population and public health; and, o Maintain privacy and security.	• As of July 24, 2014, the Medicaid EHR Incentive Program has paid out a total of $205,729,640 in the form of 6,163 eligible professionals (EPs) and 150 eligible hospitals (EHs) incentive payments. • The NC Medicaid EHR Incentive Program is partnering with the Department of Public Health, North Carolina Community Center Networks (N3CN), and the NC Health Information Exchange (HIE) to build connectivity between public health systems and electronic reporting through the NC HIE. • Transitioned to using NCTracks as source to verify patient volume and demographic information. • Post-Payment audits have been completed for Program Year 2011. As of July 2014, 163 post-payment audits have been completed for Program Year 2012. • DMA has updated its Implementation Advance Planning Document (IAPD) and State Medicaid HIT Plan (SMHP) for program years 2015 and 2016 and has submitted them for CMS approval on June 24, 2014.

HIT INITIATIVE **7. NC Telehealth Network**	**STATUS/UPDATE**
Lead Agency - North Carolina Telehealth Network (NCTN) **Federal Grant:** $12.lM federal funds through the Federal Communications Commission (FCC) Rural Healthcare Pilot Program (85%), $125K one time state dollars in 2008 from the NC Division of Public Health for initial\ development, additional funds from local public health (almost always County dollars), Hospital funding directly from NCTN community hospital subscribers. **Purpose:** The NCTN provides broadband services to health programs and sites across the state including hospitals, free clinics, community health centers and public health agencies as well as other types of public and non-profit healthcare providers.	The North Carolina Telehealth Network-NC Telehealth Network initiative is a collection of projects focused on developing broadband communication services (e.g. Internet access) in support of health and care in NC. • As of July 2014, the NCTN serves 128 sites including - 50 public health sites, 35 hospitals (two, with redundant services), 21 mental health clinics; eight Federally Qualified Health Centers, 14 other non-profit clinics. • The project is in an expansion phase with support from the new FCC Healthcare Connect Fund. There are 130 new sites expected to subscribe in the next few months with more to follow.

HIT INITIATIVE **8. NC Statewide Telepsychiatry Program (NC-STeP)**	**STATUS/UPDATE**
Lead Agency – Office of Rural Health and Community Care **State Appropriations:** $2 million in recurring funds **Additional Funding:** $1.5 million from The Duke Endowment for further development of the program, information dissemination of best practices, and website development. **Purpose:** NC-STeP assists NC hospitals in providing assessments to patients placed under involuntary commitment. The use of telepsychiatry can reduce patients' length of stay in the emergency department and overturn unnecessary involuntary commitments. **Outcomes as of June 2014:** • 22 hospitals live • 4,374 assessments • 346 overturned involuntary commitments • Estimated cost savings to the State: $1,102,356	• The North Carolina Statewide Telepsychiatry Program was created through Session Law 2013-360 to assist North Carolina hospitals in providing assessments to patients placed under involuntary commitment. Telepsychiatry is defined by legislation as the *"delivery of acute mental health or substance abuse care, including diagnosis or treatment, by means of two-way, real-time interactive audio and video by a consulting provider at a consultant site to an individual patient at a referring site."* • There are 35 counties in NC that are classified as Mental Health Professional Shortage Areas. These areas have a very low supply of mental health professionals in proportion to the population. • The practice of telepsychiatry, through NC-STeP, allows for the psychiatric evaluation of patients, through videoconferencing technology, in emergency departments lacking psychiatric staff. • This use of technology can reduce patients' length of stay in the emergency department (which can last for days in some cases) and overturn unnecessary involuntary commitments, thereby reducing the burden on staff and reducing costs to the state and federal governments. • As of June 2014, NC-STeP was operational in 22 hospitals in 21 counties. There are 4 consulting sites that provide services to the hospitals. As of June 2014, NC-STeP has conducted 4,374 assessments. As a result, 346 involuntary commitments have been overturned. • Overall, the program has resulted in cost savings to the State, its partners, and external stakeholders. Out of 346 overturned involuntary commitments during SFY 2014, 218 involved Self-Pay and Medicaid patients. The estimated cost savings to the State from these overturned involuntary commitments is $1,102,356.

HIT INITIATIVE 9. Safety Net HIE Connectivity	STATUS/UPDATE
Lead Agency – Office of Rural Health and Community Care **State Appropriations:** $750,000 non-recurring funds **Purpose:** Applicants were to identify and purchase hardware and/or software necessary for establishing a functional connection to NC HIE. This connection would ultimately permit the sharing of patient health information via the health information exchange. Only capital items, such as hardware/software necessary to facilitate linkage were funded through this one-time initiative. **Outcomes as of June 2014:** • 30 out of 30 participating safety net organizations have been connected utilizing ORHCC grant funds. • To date over 200 safety net providers are connected to the NCHIE	The Office of Rural Health identified funds in the Community Health Grant SFY 2012 budget to help enable safety net organizations, such as state-recognized rural health clinics, health departments, federally qualified health centers, and free clinics, to connect to the NC Health Information Exchange (NC HIE). Given early set-backs in the process of becoming a participant in the HIE -- legal and contractual issues revolving around privacy, security, data sharing and data normalization -- all five contractors requested no-cost extensions for additional years. Two of the contracts will expire at the end of October 2014 (NC Community Health Center Association and NC Association of Local Health Directors); the others will expire April 14, 2015. Five contracts, totaling $750,000 were awarded as follows: • NC Association of Free Clinics $162,500 (connect 9 free clinics) • NC School Community Health Alliance $162,500 (connect 6 school based/linked health centers) • NC Community Health Center Association $162,500 (connect 6 CHCs) • NC Association of Local Health Directors $100,000 (customize certified EHR system to enable connectivity to HIE; connect 2 local health departments) • NC Foundation for Advanced Health Programs $162,500 (connect 7 Rural Health Centers) The infrastructure built has been leveraged by the Safety net providers resulting in an overall connectivity increase: • 32 Free Clinics • 131 Community Health Centers (aka FQHCs) • 21 Local Health Departments • 9 ORHCC Rural Health Centers • 9 School Based Health Centers

HIT INITIATIVE **10. Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Program**	STATUS/UPDATE
Lead Agency – Office of Rural Health and Community Care (ORHCC). **Federal Grant:** All federal funding, $9,277,361 over five years comes from the CMS' CHIPRA Quality Demonstration Grant. **Purpose: Category A** - The vision is that all 24 of the child health measures will be collected and reported to CMS as well as to CCNC (Community Care of North Carolina) providers statewide. **Category B & C–** Not Applicable this Quarter **Category D** – The core purpose of Category D is to develop and implement a pediatric EHR model which will be used in the process of care for small to large practices and will focus on the areas of developmental delays, asthma, and autism screening, growth charting, and, preventive care.	• As of December 2013, North Carolina DHHS, via its contract with CCNC, was able to report on all required Core Quality Measures (CQMs) for children annually to CMS for Category A. The CHIPRA team has been able to meet our objective of defining a process to collect and report data on all CQMs. • Six additional practices have signed Memorandums of Understanding to participate in the project bring the total to nine practices for Category D. EHR Coaches are coordinating with staff at CCNC networks and with NC AHECs to identify, vet and recruit additional practices. • Six EHR vendors have committed to participate in evaluation of the Model Format. • Category D has nearly completed a third phase of practice and vendor surveys covering additional requirements in the Model Format. Topic areas in this phase include: Foster Care, Health Information Exchange, Maternal History, and Vaccinations. • Participating EHR vendors are using the projects detailed quality improvement measures, with the newly added sample data sets, to develop custom reports for the project. Pursuant to the first addendum of their participation agreements (MoU), these vendors are developing EHR system capability around capture and storage of data to drive report outputs. In some cases this work around report generation is driving system changes in very positive and meaningful ways, filling gaps in capability. The first such change can be seen in the area of child oral health. The agreement addendum also includes small financial incentivizes for vendors to incorporate and automate tools such as an Oral Health Risk Assessment and that work has begun. Complete baseline data around the measures is still being developed due to the extent of EHR system changes and provider training needs that have surfaced.

HIT INITIATIVE **10. Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Program**	STATUS/UPDATE
	• Five EHR coaches work in five territories in the state within which each coach has responsibility for practice recruitment and local project management, technical assistance, and vendor/stakeholder collaboration. • As the NC Health Information Exchange continues to expand and evolve, the NC CHIPRA Category D team is working to pilot exchange of clinical reports for the project via this avenue. This has required coordination with participating EHR vendors to remove technical and cost barriers and to meet HIPPA requirements for protecting patient information. From the beginning, a key component of our evaluation design has been to align our efforts to improve the quality of EHR systems used in child health care, and to measure the impact of a Model Child EHR Format on care quality and cost using clinical data, with information exchange solutions.

HIT INITIATIVE 11. NC Hospital Association	STATUS/UPDATE
The main goals of HITECH are quality improvement and cost reduction by moving from a transactional basis to process-driven delivery of healthcare. NCHA's goals are aligned with HITECH and the State of North Carolina in the three areas of focus that will help hospitals become "meaningful users" of electronic health record (EHR) technology: o implementation of certified electronic health record systems o reporting of quality measures to the Centers for Medicare and Medicaid Services and/or states o exchanging of clinical data with other providers	Expansion of NCHA Patient Data System: NCHA has launched a voluntary expansion of our Patient Data System (PDS) to provide additional services to hospitals and to promote improvement to the state's healthcare delivery system. The goals of this new capacity, called the PDS+, are aligned with those of the NCHA Strategic Plan and the IHI Triple Aim. PDS+ relies on voluntary participation by all hospitals and provides many benefits, but primarily for initiatives such as: • Medicaid Efficiencies – We currently deliver 14 data elements twice per day for 63% of Medicaid patients to CCNC, but with the PDS+ program hospitals will be able to provide a wider array of data elements for all Medicaid patients, in near-real time at a significant cost savings to the state, CCNC, and hospitals. • Create Low-Cost Health Information Exchange Using Existing Technology - Stage 2 certification is underway.

HIT INITIATIVE **12. Public Health Meaningful Use**	**STATUS/UPDATE**
Lead Agency – NC Division of Public Health **Federal Grant:** N/A **Purpose:** Facilitate public health reporting and the meaningful use of EHRs.	• The NC Central Cancer Registry collects, links, consolidates, and updates cancer reports received from hospitals, pathology laboratories, freestanding clinics and physician offices. The NC Central Cancer Registry is finalizing a scope of work with the NC HIE thus facilitating reporting for eligible providers who prefers to report their cancer cases through the NC HIE. • The North Carolina Immunization Registry (NCIR) is a clinical tool used by providers to track and administer immunizations. Immunizing providers account for and order federal Vaccines for Children (VFC) vaccines through the NCIR. To enable providers (current and future) to exchange information via an electronic interface, a two way bi-directional interface was developed. Construction of the NCIR's bi-directional interface that has real-time query/response, real-time vaccine update, and inventory decrementing capabilities is complete and is currently being piloted with North Raleigh Pediatrics using the Allscripts Electronic Health Record (EHR) system. The NCIR is also working with a pilot organization from NC Health Information Exchange (NC HIE) and from the Duke EHR hub; both of these pilots are in the testing phase.

HIT INITIATIVE 13. NC Community Health Center Association	STATUS/UPDATE
	The North Carolina Community Health Center Association (NCCHCA) is working with Community Care of North Carolina (CCNC) to build a central data repository and develop analytics applications to leverage this data. The connectivity of our Federally Qualified Health Centers (FQHCs) to the North Carolina Health Information Exchange (NC HIE) has been vital, as it has served as the conduit into our data repository. Eighty-five percent (29/34) of our FQHCs are currently contracted to connect to the NC HIE, with one-third of our FQHCs live in our data repository as of December 2014. The analytics applications that utilize this connectivity, with the aim of enabling our health centers to use data to improve care, include the following: • Disease Registries for Diabetes, Hypertension, Asthma, and Heart Failure. • Uniform Data System (UDS) Reporting Tool • Meaningful Use eCQM Dashboard • PCMH Dashboard • Accountable Care Quality Reporting Tool • Accountable Care Cost, Utilization, and Risk Dashboard Many of the above analytics builds are in pilot phase within our FQHCs, with a larger rollout in the fourth quarter of 2014 and the first quarter of 2015.

HIT INITIATIVE **14. NC Community Care Networks and Community Care of North Carolina (CCNC)**	STATUS/UPDATE
	Two major efforts have dominated the HIT work of CCNC in the last six months: • Re-establishing the Medicaid data feed from NC Tracks to the Informatics Center (IC) of CCNC. The 14 Networks of CCNC depend on the IC analytics to appropriately manage the care of their Medicaid patients and to identify priority Medicaid patients in their practices. Claims and enrollment data is critical to the analytics and identification of impactable patients. This functionality is dependent on the completeness and validity of the claims data received from DMA. CCNC and DMA have been working to rebuild the timely data transfer since the new NC Tracks MMIS was implemented. As of December 8, the Medicaid claims data has been transmitted to the IC for claims dating back to October 2013. Restoring the historical data from previous years and assuring the timely transmission of new data is currently underway. • Updating the data platform supporting the CCNC Informatics Center. CCNC is underway to upgrade and modernize the data analytic platform that supports Medicaid program. The IC has a 2 year plan to gradually transition from the old software to a new multi-tenant platform that delivers enhanced functionality through the use of software as a service technology, dynamic data analytics and cloud-based capacity. The new platform will allow faster, more comprehensive, and customizable services to meet the needs of the users. The new platform will also enable integration of near real time clinical data from electronic medical records through a partnership with the NC HIE. The first phase of this modernized data platform will be implemented in the first quarter of 2015 with additional enhancements to follow.

HIT INITIATIVE **15. Office of Emergency Medical Services**	STATUS/UPDATE
	The North Carolina Office of EMS (OEMS) continues to maintain and enhance all data systems pertaining to medical record collection and regulatory data. This includes, but is not limited to, electronic Patient Care Records, inspection reports and EMS certification records through the Pre-hospital Medical Information System (PreMIS), Credentialing Information System (CIS), and State Medical Asset Resource Tracking Tool (SMARTT) applications. During this quarter, several new reporting features were implemented in the CIS application. These include: • EMS STATS (Self Tracking and Assessment of Targeted Statistics): EMS STATS are the NCOEMS's next generation of Performance Improvement Tools. The EMS STATS are currently being developed in conjunction with the EMS Performance Improvement Center (EMSPIC) through a grant by The Duke Endowment. The EMS STATS will assess topics identified as national areas for assessment by National EMS Information System (NEMSIS). This project will include a provider level EMS STATS to allow field level providers to assess their performance and, for the first time, drive performance improvement from the field level up. STATS will have a streamlined format to facilitate ease of use, while focusing on key indicators that have the greatest impact on system and personal improvement. It will provide for the ability for systems, agencies, and providers to make the best data driven decisions to improve the care that they provide while optimizing the service they deliver. • EMS Data Linkage: OEMS has worked to link EMS ePCR data to other medical records. Currently EMS data is linked to Emergency Department data for the purposes of EMS outcomes and for biosurveillance as well as to the Trauma Registry data for the purposes of both EMS Performance Improvement and so that hospital Trauma Registrars are given a more complete picture of the original EMS incident. Additionally, EMS data is now being linked to itself, so that multi-leg EMS transports (defined as transport from scene to community hospital, then transport from the community hospital to a Trauma Center) can be viewed in their entirety by the receiving Trauma Center. Currently, in a multi-leg transport, the Trauma Center would only be able to see the Patient Care Record for the transport from the community hospital to the Trauma Center. But the Trauma Registrars need to know details of the original transport, from the scene to the community hospital. That linked data is now available to Trauma Registrars through the OEMS Credentialing Information System (CIS).

HIT INITIATIVE **16. NC Health Benefits Exchange**	**STATUS/UPDATE**
Lead Agency – NC Department of Insurance **Federal Grant:** Level I Planning Grant $12.4 million **Purpose:** Explore the feasibility and system design for a state operated Health Benefits Exchange under the provisions of the Affordable Care Act (ACA).	• There were no updates this quarter.

HIT INITIATIVE **17. State Information Technology Services (ITS) / State Chief Information Officer**	**STATUS/UPDATE**
	• There were no updates this Quarter.

HIT INITIATIVE **18. NC Division of State Operated Healthcare Facilities (DSOHF) and NC Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (MH/DD/SAS)**	STATUS/UPDATE
	• Electronic Health Records: A plan for regional implementation of VistA Electronic Health Record (Veterans Health Information Systems and Technology Architecture) was completed and has been submitted for review. The system is based on the - VA's award winning Health Information Technology (IT) system. Central Regional Hospital (CRH) completed a successful implementation pilot of the VistA Electronic Health Record (EHR). Along with physician order entry, clinical documentation for all disciplines, and lab results, CRH's EHR includes Bar Code Medication Administration (BCMA). These highly integrated clinical functions provide the basis for enhancing patient health and patient and staff safety through the use of technology. Two additional state operated facilities in the region are served by the CRH HIT systems for pharmacy, lab, and food and nutrition departments. Implementation at RJ Blackley ADATC also included Bar Code Medication Administration. The project was very successful and the technology is fully operational at both facilities. North Carolina's Central Regional Hospital has been sought out by international consultants for their expert advice in implementation of an exceptionally low cost highly successful electronic health record implementation. In addition, CRH staff has published an article on OpenHealthNews, the largest online portal for news about open-source healthcare technology. Costs have continued to be kept low through the use of predominantly open source (rather than proprietary) technologies and free upgrades to VistA from the VA available through the Freedom of Information Act (FOIA). CRH staff is currently focused on operations, enhancements, supportability, and continuous staff training for their EHR.

HIT INITIATIVE 18. NC Division of State Operated Healthcare Facilities (DSOHF) and NC Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (MH/DD/SAS)	STATUS/UPDATE
	• Regional Laboratory Information Systems: Broughton and Cherry Hospitals have implemented replacement Laboratory Information Systems that now allow seven other regional state operated facilities to remotely access medical laboratory reports. • Neuro-Medical Treatment Center Care Tracker (Electronic Medical Record): DSOHF has successfully expanded the use of CareTracker, an electronic health documentation system, to all of the Neuro—Medical Treatment Centers. This enables all to document resident care immediately and electronically, permits supervisors to ensure documentation is complete and will feed directly into the Hi-Tech MDS system for care plan information that is submitted to CMS.

HIT INITIATIVE **19. Comparative Effectiveness**	STATUS/UPDATE
North Carolina universities and research organizations continue to engage in both the education of future Comparative Effectiveness Research (CER) researchers as well as the conduct of timely and policy-relevant initiatives.	• North Carolina universities and research organizations continue to engage in both the education of future Comparative Effectiveness Research (CER) researchers as well as the conduct of timely and policy-relevant initiatives. UNC has been approved for an additional five years of funding to train pre and post-doctoral trainees in comparative effectiveness research. The Duke and UNC NIH-sponsored Clinical Translation Science (CTSA) programs are collaborating with each other on CER educational issues, with some faculty jointly mentored across the institutions. Both Duke and UNC have recently been reviewed by NIH and received very favorable reviews. Duke is the coordinating center for the large NIH 'collaboratory' program, seeking to enhance research across major health care systems. • North Carolina researchers continue to be successful in working with PCORI. An additional award was received by Dr. Tapp at Carolinas Medical Center. This volume of activity places North Carolina as a leader in patient-centered outcomes research. Multiple additional collaborative proposals are in the works. NC faculty are working with PCORI in a number of capacities, including as a board member (Debra Barksdale of the UNC School of Nursing) and in a number of advisory capacities. (Tim Carey of UNC and Gillian Sanders-Schmidler of Duke). Dr. Ethan Basch, an oncologist and member of the PCORI methodology committee, has recently joined the UNC faculty. PCORI is also contracting with UNC for assistance in refining research topics. • PCORI recently released a large RFA to develop infrastructure to conduct research using electronic health records across integrated health care systems. Duke and UNC are collaborating with each other and with partners on a response to this opportunity. • North Carolina universities and research organizations continue to engage in both the education of future Comparative Effectiveness Research (CER) researchers as well as the conduct of timely and policy-relevant initiatives. The total external support for these initiatives coming into the state is on the order of over $25M to date. The University of North Carolina at Chapel Hill was recently renewed for a federally sponsored pre and post-doctoral training program in CER. To date, the programs have been highly successful, with more

HIT INITIATIVE **19. Comparative Effectiveness**	**STATUS/UPDATE**
	applicants than positions, and a good job market for those who will be graduating. Faculty are collaborating with colleagues nationally to develop shared core curricula in CER. Courses on informatics have grown at both universities**.** Duke currently offers a master's program in health informatics, and UNC Chapel Hill has begun a professional master's degree in informatics, and a degree track on CER within their Masters of Science in clinical research degree. Several other UNC system campuses are also active in informatics training. All of the NC academic health centers are hiring faculty in health informatics, although these efforts are currently somewhat hindered by a relative lack of trained faculty candidates and a very competitive market for individuals with these skills, further reinforcing the importance of support for training. UNC recently brought on 4 faculty members at the Assistant Professor level with an active ongoing planning process, and established a Program on Health Informatics in the School of Medicine. The Duke and UNC NIH-sponsored Clinical Translation Science (CTSA) programs have both been renewed are collaborating with each other on CER educational and research issues, with some faculty jointly mentored across the institutions. Duke, UNC and Research Triangle International will host a conference on CER in the spring of 2015. • Research is ongoing in a number of areas. Research Triangle International (RTI) and UNC jointly host a federally sponsored Evidence-based Practice Center (EPC), conducting systematic reviews focused on mental health disorders, evaluation of preventive interventions, and enhancing systems of care. UNC also conducts reviews for a consortium of state Medicaid programs. Duke, UNC, Wake Forest and RTI are also centers of excellence in pharmacoepidemiology, with funded projects in CER across a range of conditions ranging from cardiac disease to cancer to renal failure. The Duke and UNC CTSA affiliates are meeting on a regular basis to discuss matters of mutual interest in the area of CER and health informatics applications. Duke University is the coordinating center for two major CER research initiatives, the NIH 'collaboratory' which conducts large comparative effectiveness trials. Duke also participates in coordinating the even larger PCORnet initiative. This initiative, funded by the Patient-Centered Outcomes Research Institute, supports harmonization of large electronic health record repositories for research and quality improvement efforts.

HIT INITIATIVE **19. Comparative Effectiveness**	STATUS/UPDATE
	When mature, this infrastructure will allow rapid, secure analysis of care patterns and outcomes for more generalizable populations and at reduced cost per patient enrolled. These efforts are moving forward with the active involvement of stakeholders including policymakers, health advocates and patients. • The Patient Centered Outcome Research Institute (PCORI) is becoming much more active. PCORI in a non-federal institution funded through the Affordable Care Act, and will funds about $500M per year in CER research and educational activities: www.pcori.org. North Carolina researchers continue to be successful in working with PCORI. To date, over 15 competitive research projects have been awarded to investigators at UNC Chapel Hill, Duke, Research Triangle International, Family Health International, and Carolinas Medical Center. Many of these awards involve investigators from other NC institutions. This volume of activity places North Carolina as a leader in patient-centered outcomes research and CER. Multiple additional collaborative proposals are in the works. NC faculty are working with PCORI in a number of capacities, including as a board member (Debra Barksdale of the UNC School of Nursing) and in a number of advisory capacities. (Tim Carey of UNC and Gillian Sanders-Schmidler of Duke among others). Dr. Ethan Basch is an oncologist and member of the PCORI methodology committee.

HIT INITIATIVE **20. NC Healthcare Information and Communications Alliance (NCHICA)**	STATUS/UPDATE
Background: The North Carolina Healthcare Information and Communications Alliance, Inc. (NCHICA) was established as a 501(c)(3) NC nonprofit corporation in 1994 by Executive Order of the Governor. For 19-years, NCHICA has served as a neutral convener to build consensus solutions for compliance with policy and technical challenges. NCHICA's mission is "assisting NCHICA members in transforming the US healthcare system through the effective use of information technology, informatics and analytics." NCHICA participates in national initiatives and has been recognized for its contributions to the improvement of health and health care and the resultant quality and cost efficiencies. From the original 17 founding members, NCHICA has grown to over 230 organizations and 2,000 health professionals.	• Over the past decade, NCHICA has been a contractor for the U.S. Health and Human Services Office of the National Coordinator for Health Information Technology (ONC) in developing privacy policies. NCHICA supports a number of HIE efforts including the NC Health Information Exchange that has the capability of supporting the State's safety net providers, public health, practices and hospitals in achieving Meaningful Use requirements that will bring significant incentive payments to NC and underpins improvements in health care outcomes, safety, and improved efficiencies in the health care system. • The immediate focus is on improving the quantity and quality of the data being exchanged, enrolling more Veterans into the system, and educating physicians and other providers as to the availability of information such as medications, allergies, and known clinical problems of the Veterans they may be serving to improve the quality of their care. • NCHICA has been actively involved in a telehealth/telemedicine planning activity with representatives of leading health organizations in NC. • NCHICA Privacy and Security Officials Workgroup: Earlier, NCHICA introduced the HITECH Act Breach Notification Risk Assessment Tool to help healthcare providers, such as hospitals, physician offices, clinics, etc., investigate and determine responses to potential breaches of sensitive protected health information. New documents based on recent changes in the Federal privacy regulations will be available in the near future include an updated Business Associate Agreement (BAA), Notice of Privacy Practices (NPP), and Breach Risk Assessment tool. • The NCHICA ICD-10 Task Force has attracted national attention for its limited pilot for end-to-end testing of the ICD-10 codes to ensure that no interruption in cash flow occurs when the transition from the current ICD-9 diagnostic codes takes place.

HIT INITIATIVE 21. DHHS Chief Information Officer	STATUS/UPDATE
	• April 2014, Darryl Meeks was named the Director of the DHHS Office of Health Information Technology • Established joint venture with DOT for BioMetrics electronic driver cards for driver identification and smart phone facial recognition identity management for Medicaid food stamp identity management proof of concept program with a NIST and NSTIC grant • Evaluated DMA's Social Services appeals system capabilities with its risks and recommended replacement of totally manual paper based system with a case management tool with document version control and electronic signatures • Evaluated Public Health's state laboratory's technology shortcomings, created a solution for how to attain and supersede leadership in this area with cost effective updated laboratory technologies, software and practices/procedures • Assumed the responsibility of DMA's meaningful use team with attestation of meaningful use compliance, including payments to hospitals and providers • Direct all the NC HIE, CMS funding requests construction and negotiation of services and fees with CMS • Managed the fraud response report to the legislature for the MMIS replacement system through the NC Accountability and Compliance Technology System • Gave direction and critiqued a solution to Public Health's NC eHealth Reference and Tracking System implementation • Provided two-day DHHS Healthcare Innovation day for all business Directors at DHHS. Final recommendations and report due in the first quarter of 2015 • Directed Public Health HIV team to a new HIV data warehouse delivery model through an alternative solution at Duke University • Represent DHHS as the key healthcare Director and identity management contributor for North Carolina's Identity management design team's future model • Key player for DHHS's potential entry into North Carolina's All Payers Claims Data Base model