

Abstract

The Commonwealth Health Information Management & Exchange System (CHIMES) project will be a collaborative initiative, involving public and private stakeholders from across the Commonwealth. The ultimate goal of the CHIMES project is to utilize health information technology to improve health care and the health of all Virginians. The Office of Health IT, Virginia Department of Health, is seeking funding from this cooperative agreement to plan and implement a state-level HIE. Virginia has many of the tools in place to quickly scale up to a statewide Health Information Exchange (HIE). Working on parallel paths, the state has fostered both medical and administrative data exchange. Two of Virginia's HIEs, MedVirginia and CareSpark (both recipients of grant funding from the Governor's Health It Council), were selected as participants in the National Health Information network pilot process (NHIN II). Additionally, the Commonwealth has helped to convene the Virginia Health Exchange Network (VHEN), a collaborative administrative data exchange that is privately run. The state participates through the Departments of Health and Medical Assistance Service and the Virginia Information Technologies Agency.

Virginia's CHIMES project involves a six to eight months planning phase prior to implementation. The Commonwealth will garner stakeholder input and build a collaborative model for a statewide HIE through the Governor's Health Information Advisory Commission. The Commission will be chaired by the Secretary of Health and Human Resources with staff leadership and support from the Office of Health Information Technology. The planning process will be guided by the following principals:

1. **“Thin” State Layer:** The Commonwealth should only fill gaps that have not been or cannot be filled by private endeavors.
2. **Adhere to National Standards:** Health data should be available across the country in addition to across the town. With the Assistance of the Virginia Health Information Technology Standards Advisory Committee, all relevant standards will be incorporated to achieve interoperability.
3. **Leverage Existing Work:** With two of the NHIN HIEs and VHEN's excellent collaborative work in the private sector, the Commonwealth will leverage existing efforts in a statewide expansion.
4. **Patients Own the Data:** When medically relevant data is available at the point of care, everyone wins. Doctors make better decision, hospitals avoid errors, payers are not charged for unnecessary care, and patients exhibit better health outcomes. Virginia believes that no patient should be left behind in the endeavor.
5. **Foster a Business Case:** Sustained exchange requires that exchange leads to cost savings and that participants are aware of this inherent financial incentive.

At the end of the planning period, Virginia will have conducted an environmental scan in conjunction with DMAS. Virginia will also submit a CHIMES Strategic Plan that will address the evolution of capabilities supporting HIE, as well progress in the five domains of HIE activity, the role of partners and stakeholders, and High-level project descriptions for planning, implementation, and evaluation. Virginia will also submit CHIMES Operational plan detailing how the strategic plan will be carried forward and executed to enable statewide HIE.

CHIMES

Current State

The Commonwealth of Virginia has made considerable progress in the area of health information technology (HIT). Virginia is deeply committed to having the most effective and efficient healthcare available for its citizenry. Much has been accomplished in laying the foundation for HIT and HIE in recent years – a period of intense planning, policy, and program development in HIT in the Commonwealth. Virginia is now widely recognized as a leader in the field of HIT and has implemented a portfolio of strategic projects and programs specifically targeted to identify and address priority health issues within the Commonwealth and at the same time as it has been an active participant in national HIT initiatives and collaborations. Virginia is the only state with two participants (MedVirginia and CareSpark) in the Nationwide Health Information Network (NHIN) Trial Implementation. Last February, MedVirginia became the first and remains the only HIE in production on the NHIN through its partnership with the Social Security Administration (SSA) to automate the disability determination process, the first production-level exchange through the NHIN-CONNECT gateway. Additionally, Virginia has strong representation on the Health Information Security and Privacy Collaboration (HISPC), a state and federal-sponsored, multi-year, public-private organization, whose primary mission is to develop tools, services and support to resolve privacy and security interoperability issues between health information organizations (HIO). Virginia was one of only twelve communities in the U.S. selected to participate in the Centers for Medicare & Medicaid Services (CMS) electronic health record (EHR) demonstration. Virginia was recently designated as a Chartered Value Exchange (CVE), one of several initiatives undertaken by the U.S. Department of Health & Human Services (HHS) to implement a vision for health care reform built on four cornerstones, including the adoption of interoperable HIT.

Virginia has distinctive strengths and experiences that are demonstrated in its portfolio of projects related to HIT adoption and HIE. The following section describes current major projects underway in the

CHIMES

Commonwealth, with respect to the specific stages of HIE as recommended by the Office of the National Coordinator for Health Information Technology (ONC).

The Virginia Health Exchange Network (VHEN) is a collaboration of Virginia health plans, health systems, hospitals and the Commonwealth dedicated to lowering transaction costs and improving the efficiency of administrative systems in health care. VHEN was convened by the Virginia Association of Health Plans, the Virginia Hospital & Healthcare Association and the Governor's Office of HIT, and operates under a charter that began July 1, 2007. Using the CAQH CORE Phase I operating rules for HIPAA eligibility and benefit transactions, a secure web portal is being developed to connect Virginia's health plans, health systems and state agencies to simplify patient insurance eligibility verification. Health care providers will be able to determine insurance eligibility status, level of benefits and other critical information in real time across multiple health plans, public and private, by using this one portal. Virginia's providers ultimately will be able to reduce eligibility verification and claims submission requests via phone/fax and query the Medicaid Management Information System (MMIS) to reduce the overall number of self-pay accounts.

The network also provides a platform for expansion into other services, including populating health records and financial management. Future plans include identifying a solution to verify patient insurance coverage when it may be unknown or unavailable so that benefits can be accessed more easily. VHEN also will evaluate additional approaches for reducing costs of collection, payment- and approvals, and where justified, engage in further defined, collaborative and measured efforts to streamline health care administration in Virginia. For more information, visit <http://www.hits.virginia.gov/vhen.shtml>

CommonwealthRx was launched in 2009 to increase the volume of e-prescribing in Virginia. Its vision is to improve patient safety, quality of care and cost-effectiveness through e-prescribing and medication management. The goal of CommonwealthRx is to move Virginia into the "Top 10 in 2010" in ranking for percentage of electronic prescriptions, by providing the structure to support purchase and meaningful use of eRX and offering ongoing technical support to prescribers. It is led by a steering committee of health care executives, pharmacists, prescribers and others who possess a shared vision of

CHIMES

Virginia being one of the nation's top e-prescribing states. For more information, visit

http://www.hits.virginia.gov/virginia_rx.shtml.

Surescripts, with headquarters in Virginia, has been a long-standing advocate for the advancement of e-prescribing in the Commonwealth and is an active member of CommonwealthRx. Surescripts operates the country's largest e-prescribing network. The Surescripts network connects prescribers to all of the nation's major chain pharmacies (e.g., Walgreens, CVS/pharmacy, Rite Aid, Wal-Mart), many of the nation's leading payers and pharmacy benefits managers (PBMs) such as Aetna, CVS Caremark, Express Scripts, Medco, Wellpoint, as well as over 10,000 independent pharmacies nationwide. In Virginia, over 85 percent of pharmacies (1,214) are connected to prescribers via Surescripts. Surescripts provides key performance metrics for tracking medication management in Virginia. Examples include: 3.49% of prescriptions are electronic and 1.7M requests for prescription benefits were submitted, with a response rate of 72%. Virginia will work closely with Surescripts during the planning process to develop more detailed measures of fill status.

Typical of most locations in the U.S., lab orders and results are transacted through a variety of electronic and non-electronic mechanisms. Leading reference lab services provide on-line ordering and results delivery capabilities. It should be noted that both of Virginia's members of the NHIN Trial Implementation (MedVirginia and CareSpark) participated in the EHR-Lab Use Case, and this experience and expertise will be provided to the proposed planning process.

Virginia Health Information (VHI) developed a pilot exchange system to collect laboratory data and other clinical data from hospitals utilizing the international system of Logical Observation Identifiers Names and Codes (LOINC®); used in transmission of HL7 messages. This information comes from hospitals representing approximately 50% of Virginia's 870,000 plus discharges per year and represents over 15 million distinct tests and test results. VHI has worked with hospitals to convert internal lab test schema to LOINC® codes for electronic reporting. VHI has significant investments in technologies for data exchange, outcomes measurement and a Board of Directors experienced with governance of complex programs affecting all health care stakeholders.

CHIMES

Virginia utilizes the *Virginia Immunization Information System (VIIS)* to track immunizations. This application was developed in Wisconsin under a Center for Disease Control and Prevention grant and is used in 20 states. The system utilizes SNOMED CT, NIP table values (National Immunization Program), CPT, CVX, LOINC, FIPS (Federal Information Processing Standard) and HL7 standards. CareSpark is currently working to enable exchange between VIIS and the statewide immunization registry for Tennessee (TWIS), as well as viewing by clinicians in a standard CCD format. For more information visit <http://www.vdh.virginia.gov/Epidemiology/immunization/viis/>

The *Division of Consolidated Laboratory Services (DCLS)* utilizes three laboratory information management systems (LIMS) applications provided by STARLIMS. These three applications manage Newborn screening data, Clinical testing data and Environmental testing data.. Newborn Screening LIMS (NBS) processes 120,000 infant samples annually, screening each for 28 different genetic or metabolic disorders. This LIMS is also used by the Virginia Department of Health (VDH) to monitor and record follow-up treatment for babies that have been diagnosed with a disorder. Data from the LIMS is exported to VDH's VA Infant Screening and Infant Tracking System (VISITS). Test results, along with treatment recommendations, are communicated daily to the VDH follow-up group, pediatricians, hospitals throughout Virginia, and various military bases around the world. The adopted codes for electronic messaging of NBS data include: UCOM, ISO, and ASTM, implementation of LOINC, Enzyme codes, and ICD-9 is currently under development..

Clinical LIMS (Sunrise) is used for managing, processing, and reporting analytical result data for public health. Samples processed in this application include clinical, microbiological, food, biological, chemical, and animal specimens. Sunrise processes up to 500,000 samples annually, on which over 1 million tests are performed. Results are reported daily to VDH, hospitals, physician offices, various state agencies, Office of the Chief Medical Examiner, and various law enforcement agencies. The vital data managed in this system is used for outbreak management, disease detection and surveillance, pandemic response, emergency response preparation, and response to legal and forensics issues. The Sunrise application is capable of electronic messaging on a statewide and national level, using standard codesets

CHIMES

including LOINC, SNOMED, PHIN_VADS, HL7, UCOM, ISO, and ASTM. Standard messaging formats include HL7 v2.3.1 and HL7 v 2.5 administered through the Orion Rhapsody message broker.

Environmental LIMS (ENVLIMS) is a repository for the analysis of drinking water for the Virginia Office of Drinking Water. This application manages the data from inorganic and organic chemical, radiation, metal, and bacterial contamination analyses. DCLS performs analysis on over 800,000 samples annually, with one to many tests performed on each sample. Currently, adopted codes sets for electronic messaging include: NELAC, STORET, SDWIS, UCOM, ISO, and ASTM. ENVLIMS uses standard messaging formats (i.e. EPA's SDWIS XML schema 2.0). Partner entities are VDH, Virginia Department of Agriculture and Consumer Services (VDACS), Department of Environmental Quality (DEQ), law enforcement, Environmental Protection Agency (EPA), Department of Homeland Security (DHS) and the Food and Drug Administration (FDA).

DCLS's current messaging capabilities for inbound, non-HL7 messaging from VDH include daily electronic lab orders from local health departments throughout the state, outbreak alert notifications and HIV incident reporting. Outbound, non-HL7 messages to VDH includes newborn screening data, Tuberculosis control information, rabies, HIV screening and incident reporting, blood lead, arbovirus, and drinking water results to Office of Water Programs. HL7 messages to VDH include influenza (Newly converted to HL7 2.5). Outbound messages to CDC includes: enteric testing data (Non-HL7), rabies (Non-HL7) and influenza results (HL7 2.3.1).

DCLS has several messaging projects that are currently in progress including Electronic Test Orders and Results (HL7 2.6) State-to-State and State-to-CDC in support of surge, pandemic, and emergency response (ETOR pilot project). The pilot project includes: H1N1 influenza, *Salmonella* spp., and *Bacillus anthracis* inbound data exchanges. Electronic Lab Reporting (HL7) to VDH's National Electronic Disease Surveillance System (NEDDS) is also on-going. DCLS is partnering with Augusta Regional and INOVA hospitals to pilot HL7 Newborn Screening results (HL7). They also plan to transmit electronic test results to VDH for lab orders placed by local health departments using WebVision (Non-HL7).

Virginia Health Information (VHI) is the Commonwealth's recognized healthcare cost and quality reporting organization. VHI has a sixteen year history of developing and publishing quality and performance information for consumers, health care providers and researchers. VHI combines information from multiple sources, works with stakeholders to gain input and support and utilizes the expertise of researchers from the University of Virginia, Virginia Commonwealth University and private national firms. Examples of VHI current quality reporting at www.vhi.org include:

- ◆ Hospital and physician rates of cesarean delivery, episiotomy and length of stay.
- ◆ Cardiac care mortality, 30-day readmissions, length of stay for hospitals.
- ◆ HMO quality and members satisfaction (HEDIS and CAHPS) premium and financial information
- ◆ Pricing Transparency: 31 services with average allowed amount provided by Virginia health insurance carriers.
- ◆ Prevention Quality Indicators identifying avoidable hospitalizations that occur when patients do not have access to high quality care.
- ◆ Service Line Reports for Hospitals with volume, actual and expected length of stay, and charges on all hospital care.
- ◆ Efficiency rankings for hospital, ambulatory surgical centers, nursing homes on financial and operational data for large employers, insurance companies.
- ◆ VHI is a contractor supporting the Anthem Quality-In-Sights®: Hospital Incentive Program (Q-HIP). VHI's role includes development of a secure, web based system for electronic capture of NQF-endorsed performance measures, evaluation criteria, nurse medical review and calculation of performance scores of hospital performance in seven states.
- ◆ VHI operates Virginia's NHTSA and DMV-sponsored Crash Outcomes Data Evaluation System (CODES) VHI links police crash reports, EMS-(ambulance information, hospital discharge data, trauma registry and vital records are combined to produce outcomes and cost information for consumer education, policy formation and traffic safety reports.

CHIMES

Inpatient hospitals report to CMS Physician Quality Reporting Initiative (PQRI) quality measures. The 2009 PQRI consists of 153 quality measures. Health systems are also surveyed and report core measures to the Joint Commission's ORYX quality initiative. Virginia Health Information, Inc. supports Anthem's Quality Insights pay for performance program with development of electronic capture of clinical performance measures, rating systems and nurse medical review of hospitals in seven states.

Presently, several Commonwealth-funded projects are in various stages of maturity across the state. **CentraHealth** in Lynchburg and the American College of Cardiology (ACC) are collaborating on a national demonstration project using the ACC's National Cardiovascular Data Registry (NCDR) Program for Improving Continuous Cardiac Care (IC3). The IC3 Program measures and benchmarks the physician practice adherence to current ACC/American Heart Association (AHA) clinical practice guidelines and performance measures. The ACC compares physician practice data with benchmarked data and provides reports showing each physician's adherence to best practice guidelines and measures. Centra's physicians use these benchmarks to improve patient care. For more information, visit http://www.hits.virginia.gov/centra_health.shtml.

Northern Virginia Regional Health Information Organization Inc. (NOVARHIO) was established in 2006, and has made significant progress in building a full HIE for all northern Virginians. Collaborators include Inova Health System, GE Healthcare, Erickson Retirement Communities and Audacious Inquiry, Inc. Two projects of NOVARHIO are undertaking a trial to provide Inova Alexandria Emergency Department physicians with patient medication history (with patient permission) to help in diagnosis and in determining course of treatment during times of great health risk and establishing a standards-based health information framework for automating and providing access to the "File for Life." For more information, visit www.novarhio.org.

CareSpark was founded in 2005 as part of an overall strategy to improve health outcomes and to reduce inefficiencies in the delivery of health care in the central Appalachian region of Southwest Virginia and East Tennessee. CareSpark has developed a collaborative

CHIMES

multi-stakeholder not-for-profit governance structure and diversified funding mechanisms to support adoption and use of certified electronic systems (electronic health records with e-prescribing and clinical decision support) in clinical settings; connectivity and interoperability through a secure, standards-based network that supports regional and national HIE; aggregation and monitoring of data for the purpose of individual and population health improvement; and alignment of financial incentives for patients, providers and purchasers (employers, public and private health plans). With support from local, state and national leaders, CareSpark's system became operational in fall 2008, and houses records for 300,000 patients served by 125 clinicians who currently use the system. Use is projected to grow to nearly 500 clinicians serving nearly 2 million patients by the end of 2009, including those with records in Virginia's Immunization Information System.

A pilot project connecting public health providers to Carilion Health System's electronic health records system began in 2006. VDH was responsible, in collaboration with Carilion Health System, for designing, implementing, administering, and evaluating the pilot program. In 2007 this pilot was expanded to additional local health department sites located within the Carilion Clinic catchment area. On a daily basis, patients from local health departments are electronically matched with patients from Carilion. Health department staff is then allowed viewing privileges to those shared patients.

MedVirginia, LLC, established in 2000, is a provider-owned and governed health information organization based in Richmond. Its organizational purpose is to improve quality, safety and efficiency through the use of HIT. At its core is MedVirginia Solution[®], a community-based health information exchange (HIE) linking clinical data from physicians, hospitals, labs and pharmacies. In 2006, MedVirginia's HIE became operational, making it among the first

CHIMES

“live” HIEs in the U.S. In 2007, MedVirginia was awarded an HHS contract to participate in the Nationwide Health Information Network (NHIN) Trial Implementation. In 2008, MedVirginia’s CEO, Michael Matthews was named the state’s Convener for the CMS EHR Demonstration as well as Senior Advisor to the Governor’s Office of Health IT. Last February, MedVirginia became the first and remains the only HIE in production on the NHIN through its partnership with the Social Security Administration to automate the disability determination process.

MedVirginia and the Executive Directors of the Richmond area free clinics have participated in HIE adoption, since 2006. To date, significant accomplishments have been made that are already driving improvements in clinical workflow and enhancements to the quality of care provided to patients. All of the free clinics have new registration and scheduling systems; are active users of MedVirginia and can receive automated results from all participating data suppliers, including Bon Secours Richmond Health System; are connected to area specialists and hospitals via a secure clinical messaging system; have access to an automated and standardized system for eligibility screening, results of which are available to all specialists and hospitals at time of referral; will be provided e-prescribing capabilities, with connectivity to 175 community pharmacies as well as the CrossOver free clinic pharmacy; and have "EMR lite" capabilities, including clinical documentation infrastructure for capturing medications, allergies, problem lists, immunizations, and vital signs.

The Virginia Telehealth Network (VTN) is a state-wide collaboration with a focused vision of all Virginians having access to high quality healthcare regardless of their location -rural, urban or suburban- and that their health information will be securely shared among providers using technologies that support safe and timely care delivery when and where needed. The VTN was established to help stakeholders collectively and cooperatively set the direction and standards for the use of information and telecommunications technologies as well as related processes and content that will enable Virginia’s

CHIMES

health care community and patients to realize this vision. Work is now underway to help transform this vision into reality, in part, through the VTN's involvement in the Virginia Stroke Telehealth (VAST) Network which is creating a systematic approach to reduce the time-to-care for stroke patients in rural communities. The VTN's organizational development has been pursued and championed through the interests and active participation of organizations and individuals throughout the Commonwealth that create, use, support and promote telehealth services including, academic medical centers; state organizations involved with health care state and local government entities, regional organizations involved with health care, colleges, universities and foundations, and health care professionals.

Virginia's *No Wrong Door Initiative* is designed to streamline access to health and human services and coordinate care for seniors and adults with disabilities. No Wrong Door provides an existing comprehensive infrastructure of public and private local and statewide health and human service partners that can be leveraged for the Commonwealth's HIE planning and implementation project. On the state level, stakeholders include all of the public agencies under the Secretary of Health and Human Services as well as the Department of Rail and Public Transportation, the Virginia Hospital & Healthcare Association, United Way, 211-Virginia, SeniorNavigator, the Virginia Association of Area Agencies on Aging, the Virginia Association of Centers for Independent Living, the Virginia Association of Community Services Boards, Virginia Association of Private Providers, AARP, the University of Virginia School of Nursing and consumer advocates. On the local level, hospitals, home and community-based health and human service providers, assisted living and nursing homes, and the public agency local affiliates to the agencies under the HHS Secretariat collaborate through local advisory councils and also have representation on the statewide council.

Community Care Network of Virginia, Inc. (CCNV) was established in 1996 by the leadership of the Virginia Primary Care Association. It is wholly owned and governed by all 24 of Virginia's Federally Qualified Health Centers (FQHCs). Through CCNV, Virginia's FQHCs have been able to acquire and deploy health information technology infrastructure since

CHIMES

1999. In 2007, Virginia received one of three grants funded by the Health Resources and Services Administration (HRSA) for the acquisition and deployment of electronic health records. This electronic health record infrastructure is a key element of the FQHCs' strategic vision for HIE. Additional HRSA funding was also received for the development of HIT Technology Innovation. These innovation funds are being used for the fabrication and deployment of kiosks in all of FQHC sites across the Commonwealth. CCNV has developed collaborative partnerships with VDH for quality outcome measure development for the purpose of improving the health of identified at-risk populations in the Commonwealth.

Carilion Clinic is a healthcare organization with more than 600 physicians in a multi-specialty group practice and eight not-for-profit hospitals. Carilion Clinic specializes in patient-centered care, medical education and clinical research, with a goal of providing the best possible health outcome and healthcare experience for each patient. Carilion chose Epic as the vendor for its inpatient and outpatient EHR services. As Carilion Clinic offices are spread across a wide geographic area, the common use of Epic EHR has facilitated a robust network of medical providers in southwest Virginia.

In summary, a great deal of progress has been made with respect to the development and implementation of HIE in Virginia. Several geographic areas, mainly in the Hampton Roads area, the southeastern portions of the state, and other rural areas along the north western border are lacking in HIE capability. There is also a noticeable lack of interoperability between military and civilian health care providers with respect to HIT. To address these gaps and by working in close collaboration with a diverse group of health care stakeholders throughout the state, Virginia plans to expand the adoption of HIT and promotion of HIE to improve the quality and coordination of healthcare services. The roadmap to build HIE capacity must begin with an assessment of the state and its providers'

CHIMES

readiness to adopt and implement HIT to achieve meaningful use. To this end, the Virginia seeks funding approval from ONC for the planning and implementation of a state-level HIE.

Upon receipt of the grant award and as planning activity to develop a HIE Strategic Plan Virginia will conduct an environmental scan be coordinated with the Department of Medical Assistance Services' (DMAS) State Medicaid Health Information Technology Plan (SMHP) to thoroughly assess HIE readiness of health care providers within the state and potentially outside of the state as relevant. The environmental scan will also include an assessment of current HIE capacities that could be expanded or leveraged, HIT resources that could be used, the relevant collaborative opportunities that already exist, the human capital that is available and other information that indicates the readiness of HIE implementation statewide. All of this will serve as a springboard for strategic advancement of HIT in the future. In summary, although much progress has been made with respect to HIT, a substantial amount of work remains to be done to create ONC approved strategic and operational plans for a state wide HIE. A foundation of local initiatives, stakeholder engagement, federal partnerships, and state leadership has been built and will be key to successful planning and implementation of the proposed State-level HIE. Virginia has the resources, partnerships, infrastructure and vision to continue the drive toward enhanced quality, safety and efficiency through the use of HIT and HIE. Much work remains, but Virginia's HIT history provides both the confidence and encouragement to press ahead.

Proposed Project Summary

The Commonwealth Health Information Management & Exchange System (CHIMES) project will be a collaborative initiative, involving public and private stakeholders from across the Commonwealth. As noted in the current state description, Virginia has made significant strides in the individual areas of HIT and is now ready to create a comprehensive HIE Strategic Plan that addresses the domains defined in the FOA. The CHIMES project will be administered by the Virginia Office of Health Information Technology, with guidance and oversight from the Virginia Health Information Technology Advisory Commission (HITAC). This initiative will ensure broad stakeholder participation, build sustainable public/private partnerships, address both state and local needs and establish the necessary

CHIMES

authority to execute approved State Plans. Subsequent to the grant award, Virginia will begin preparing for an HIE planning process that will result in CHIMES Strategic and Operational Plans to be submitted to the ONC no later than August 2010. It is expected that the Strategic and Operational Plans will be reviewed and subsequently approved by ONC, with Virginia ready to implement the Plans no later than October 2010.

The planning process will be convened, coordinated and staffed by existing Virginia entities. The partners listed below will provide for a stream-lined planning process by maximizing the available HIT infrastructure, resources and expertise and by eliminating duplicative efforts. Consultants with specialized skill sets will be brought on board as needed to provide technical expertise. A description of the major partners in the planning process follows. Refer to the CHIMES project organizational chart in the Appendix.

Office of Health IT. The Virginia Department of Health (VDH) has been designated through executive order as the lead agency for HIT in the Commonwealth, and has established an Office of Health IT. One of the main goals of this office is to use information technology to improve health care quality and efficiency through the authorized and secure electronic exchange and use of health information. This office staffs the Health Information Technology Advisory Commission (HITAC), provides guidance to the Governor on HIT issues, and ensures that the efforts of the Commission are aligned with other HIT initiatives in the Commonwealth. The Office of HIT consists of a director, Kim Barnes, appointed by the Secretary of Health and Human Resources in consultation with the Commissioner of Health and additional professionals as the Secretary determines. Ms. Barnes serves as the Commonwealth's HIT Lead to fulfill the responsibilities outlined in the American Recovery and Reinvestment Act of 2009 (ARRA), supports the work of the Governor's HIT Advisory Commission, facilitates collaboration between the Commission and all appropriate stakeholders, ensures broadband and telemedicine initiatives are integrated into the Commission's planning and implementation process and ensures VDH HIT projects including the Advanced Directive Registry, the Immunization Registry, as well as any future

CHIMES

electronic health record initiatives are appropriately aligned with the Commission's planning and aligned with ARRA-funded projects.

Health Information Technology Advisory Commission (HITAC). Virginia took an important step towards the development and implementation of a comprehensive plan for HIT when Governor Mark Warner established the Governor's Task Force on Information Technology in Health Care in 2005. Governor Kaine continued and expanded Virginia's commitment to advancing HIT in the Commonwealth when he issued Executive Order 29 in 2006, creating the Governor's HIT Council. When the Order expired, the council continued on a voluntary basis as the Health Information Technology Interoperability Advisory Committee (HITIAC). HITAC was created by Executive Order 95 in 2009, and was charged with ensuring broad stakeholder engagement and providing guidance to the Governor on the most effective use of American Recovery and Reinvestment Act (ARRA) funds designated for HIT. HITAC is chaired by the Secretary of Health and Human Resources and enlists a broad range of stakeholders including hospital and insurance executives, physicians and HIE and privacy experts. The HITAC member list is included in the appendix. HITAC was formed to encourage public-private partnerships to increase adoption of electronic health records for physicians in the Commonwealth; provide healthcare stakeholder input to build trust in, and support for a statewide approach to HIE; ensure that an effective model for HIE governance and accountability is in place; examine and define an integrated approach with the Department of Medical Assistance Services (DMAS) and VDH to enable information exchange; support monitoring of provider participation in HIE as required to qualify for Medicaid meaningful use incentives; develop and/or update privacy and security requirements for HIE within and across state borders; encourage and integrate the proliferation of telemedicine activities to support the Virginia healthcare improvement goals; monitor and support the activities of any Regional Extension Centers awarded in the Commonwealth; and examine other health related issues as appropriate.

Health Information Technology Standards Advisory Committee (HITSAC) advises the Information Technology Investment Board (ITIB) on the approval of nationally recognized technical and data standards for HIT systems or software pursuant to subdivision 6 of § 2.2-2458 in the *Code of*

CHIMES

Virginia. CHIMES will incorporate the guidance of HITSAC in the development of strategic and operation plans for HIE in the Commonwealth. HITSAC's guiding principles are to (1) develop a blueprint for (HIE) and identify steps to achieving that vision; (2) focus on data requirements for both patient health purposes and public health purposes (research); (3) ensure data is available where it needs to be for the patient, while protecting the patient's privacy and wishes; (4) recognize standards, like Electronic Medical Records (EMR) and Electronic Health Records (EHR) are a utility of HIT, not a competitive advantage; (5) focus on interoperability as a critical success factor; (6) develop and manage close relationships with the federal healthcare initiatives; (7) adopt standards instead of creating new ones; and (8) insure standards have been validated prior to adoption. For more information visit <http://www.vita.virginia.gov/ITIB/>

The Department of Medical Assistance Services (DMAS) is one of eleven agencies within the Health and Human Resources Secretariat. The Department is composed of the Agency Director, Chief Deputy Director, two Deputy Directors and fifteen separate divisions. Currently, there are 349 funded classified positions, along with wage and contract employees. The mission of DMAS is to provide a system of high quality and cost effective health care services to qualifying Virginians and their families. DMAS administers Medicaid, FAMIS, FAMIS MOMS and FAMIS Plus programs, as well as the State Children's Health Insurance Program (SCHIP), entitled FAMIS (Family Access to Medical Insurance Security) in Virginia and also special health care services for all covered children and pregnant women. DMAS is in the process of creating a State Medicaid Health Information Technology (HIT) Plan (SMHP) that serves as a strategic vision to enable the Commonwealth of Virginia (COV) to achieve its future vision by moving from the current "As-Is" HIT Landscape to the desired "To-Be" HIT Landscape, including a comprehensive HIT Road Map and strategic plan over the next five years. Collaboration with DMAS will ensure that the respective strategic plans are in concert, reducing duplication of efforts, increasing efficiency, and better utilizing federal resources. For more information, visit www.dmas.virginia.gov.

CHIMES

Virginia Health Information, Inc. (VHI) In 1996, House Bill 1307 was signed into Chapter 7.2, Health Care Data Reporting of the *Code of Virginia* to improve the value and utility of the Commonwealth's health care cost and quality initiatives. This legislation directed the Commissioner of Health to contract with a nonprofit, tax-exempt health data organization to develop and implement health data projects that provide useful information to consumers and purchasers of health care, to providers including health plans, hospitals and nursing homes and physicians. In accordance with §32.1- 276.4(A) of the *Code of Virginia*, the Commissioner contracts with VHI to serve as the health data organization that provides these services. For more information, visit www.vhi.org.

Virginia Information Technologies Agency (VITA). VITA is the Commonwealth's consolidated information technology organization. VITA is a unique organization, pioneering a 21st century model for information technology governance and operational excellence. The creation of VITA represents the most comprehensive reform of state government information technology in the nation and firmly establishes Virginia as a leader in the use of technology in government services to citizens. VITA's responsibilities fall into four primary categories: (1) governance of the Commonwealth's information security programs in support of the responsibilities of the Chief Information Officer of the Commonwealth; (2) operation of the IT infrastructure, including all related personnel, for the executive branch agencies declared by the legislature to be "in-scope" to VITA; (3) governance of IT investments in support of the duties and responsibilities of the Information Technology Investment Board and the Chief Information Officer of the Commonwealth; and (4) procurement of technology for VITA and on behalf of other state agencies and institutions of higher education. For more information, visit www.vita.virginia.gov.

The ***Virginia Division of Consolidated Laboratory Services (DCLS)*** is a Division of the Virginia Department of General Services (DGS) within the Secretary of Administration. Formed in 1972, it was the first consolidated lab in the nation. DCLS provides laboratory services for a wide variety of local, state and federal law enforcement, emergency response, health and environmental protection programs. DCLS employs 229 full-time scientists and laboratory support staff, and performs over 4 million tests a year to help ensure the safety and health of Virginia's citizens and the environment. DCLS accredits

CHIMES

environmental laboratories (over 900 facilities) throughout the Commonwealth to ensure compliance with Virginia Regulations 1 VAC 30, Chapters 45 and 46 and VA Safe Drinking Water act.

DCLS is one of four state public health laboratories initially selected and funded by the federal government to test human specimens for evidence of exposure to biological and chemical agents (i.e. anthrax). DCLS is the first state lab in the nation to send Influenza test results to CDC using HL7 2.3.1 and nationally recognized data standards and vocabulary such as LOINC, SNOMED, and HL7. DCLS performs testing on every infant born within the Commonwealth for twenty-eight metabolic and genetic disorders (approximately 120,000 infant samples per year), and is a key player in the Commonwealth's Emergency Preparedness Plan.

DCLS aims to align strategic plans with national IT initiatives; to actively engage in State and National initiatives to harmonize public health informatics, standardize electronic data exchange, improve message transport, and enhance security architectures; to develop comprehensive Laboratory Information Management systems that meet the 16 business processes as defined by Association of Public Health Laboratories (APHL); to promote adoption of nationally recognized technologies, data standards, and coded value sets; to enhance the information supply chain through the expansion of web and e-messaging technologies; and to promote collaboration, interoperability and reusability of processes within DCLS and with other partner systems. For more information, visit

www.dgs.state.va.us/DivisionofConsolidatedLaboratoryServices

Planning Activities

The CHIMES project will develop and implement strategic and operational Plans to ensure that a comprehensive set of actions will result in adoption of HIE to enable providers to meet the HIE meaningful use criteria to be established by the Secretary through the rulemaking process. The following is a clear and concise description of activities funded by the cooperative agreement to develop strategic and operational plans to increase the extent of electronic information exchange for the HIE program objectives. CHIMES will adopt nondiscrimination and conflict of interest policies that demonstrate a

CHIMES

commitment to transparent, fair and nondiscriminatory participation by stakeholders. The eight-month planning process will include, but is not limited to these activities:

- Monthly meetings of the HITAC, including the creation of workgroups to address particular plan requirements across each of the five domains, as well as a workgroup to address evaluation and performance measures and reporting and a workgroup to address shortcomings in stakeholder collaboration, and by engaging said stakeholders.
- Accessing technical assistance made available from the state-level HIE Consensus Project.
- Build upon assessments of planning activities in other selected states, including best practices and lessons learned.
- Examination of assessments of other selected states' governance, technical, business and finance strategies.
- An environmental scan of the state to more thoroughly assess the level of HIT adoption and use of HIE in conjunction with DMAS.
- A review of how a statewide governance entity must be structured to comply with State law and create statewide policy guidance.
- Development and vetting of elements of HIE governance models that incorporate health outcome priorities and a statewide approach to technical infrastructure, privacy and security and financing.
- Alignment with national HIT and HIE goals, standards and programs, including the NHIN.
- Extensive public input through web-based surveys, public forums, stakeholder teleconferences and a HIT and exchange summit.
- Collection and dissemination of information via multiple forms of media, including an e-health website, and the use of modern social networking tools such as Facebook and Twitter.

CHIMES Privacy:

Protecting privacy and security of health information is an essential part of ensuring success of HIE. In order to generate trust of consumers and providers, data protection must be built into the HIE governance structure, technical infrastructure, business and technical operations, and the legal/policy framework. As part of our strategic planning effort, Virginia will engage in an open, collaborative process with stakeholders to create legal and organizational structures and technical architecture that will maximize stakeholder benefits from HIE while protecting privacy and security of consumer health information. Virginia understands that it is imperative to develop widely-accepted legal and business rules

CHIMES

and uniform consumer consent procedures that will facilitate the exchange of health information for clinical and public health purposes without undue risk and uncertainty to participating organizations. The objective of this work will be to:

- ◆ Assure security in the exchange of health information
- ◆ Achieve clarity and uniformity in the application of privacy and security rules
- ◆ Facilitate data exchange for clinical and public health purposes
- ◆ Coordinate Virginia's policies, procedures and requirements with evolving rules at the federal level, and
- ◆ Endeavor to harmonize disparate requirements of neighboring states to enable efficient administration.

Initially the goal will be to develop trust and consensus around basic privacy and security principles, clarification of current statutory issues relevant to data exchange, and policies and forms for patient consent. More complex issues such as secondary uses of data will then be addressed. Using guidance from the HITAC and the HITSAC, Virginia will engage in the following activities related to establishing data protection policies, procedures and standards as part of its strategic planning process.

- ◆ Virginia will perform an evaluation of its privacy and security laws and regulations that impact are relevant to health information exchange. In this, Virginia will leverage the work of Health Information Security and Privacy Collaboration (HISPC), in which Virginia was an active participant. The evaluation will lead to a plan to rationalize state regulations that affect HIE and harmonize Virginia regulations with those of neighboring states to ensure regional and national interoperability.
- ◆ Virginia will perform an analysis of national standards and specifications, particularly those adopted by the Health Information Technology Standards Panel (HITSP) and by the NHIN. Examples of standards relevant to privacy and security include Patient Discovery, Access Consent, Consumer Preferences and Authorization Framework. The analysis and recommendations related to standards will be reviewed by HITSAC so it can formulate a plan for adoption of appropriate standards within the Commonwealth.

CHIMES

- ◆ Virginia will identify specific organizations to represent various stakeholders and will convene an open, collaborative process by which privacy and security-related policy recommendations can be shaped and forwarded to the Office of Health IT for approval and adoption. In doing this, Virginia will benefit from the experience of other states in which multi-stakeholder collaborative processes have developed legal rules for the implementation of privacy and security principles in the exchange of health information, and where contractual mechanisms are being developed to enforce adherence to those rules, including:
 - Basic consumer participation model in HIE, sometimes referred to as opt-in/opt-out
 - Policies for consumer Access, Amendment, and Accounting of Disclosures, as specified in HIPAA and the ARRA
 - Consumer preferences, including policies for handling consumer requests for restrictions, as specified under the HIPAA Privacy Rule and ARRA
 - Handling of sensitive data, including data protected under the Confidentiality of Alcohol and Drug Abuse Patient Records Regulation (42 CFR Part 2), records of minors, records protected by Veterans Administration regulations on Confidentiality of Certain Patient Records (38 USC 7332), and other protected classes of health records
 - Security framework for ensuring appropriate implementation of administrative, technical and physical controls within systems and organizations that connect to the state HIE, the NHIN, and federal agencies, including disaster recovery and business continuity planning

As Virginia develops the governance structure and trust agreements for HIE within the Commonwealth, Virginia will incorporate privacy and security obligations of participants into the trust agreements that will bind participants in the HIE. This will reduce risk and uncertainty among all participants in the HIE network. Virginia will ensure that development of the state health information exchange technical architecture incorporates technical mechanisms for enforcement of privacy and security adopted within the Commonwealth, and is consistent with nationwide standards, laws,

CHIMES

regulations and frameworks. As part of the overall outreach and communication strategy, Virginia will identify channels and modalities for communicating with stakeholders about privacy and security, as well as about benefits of participation in HIE.

Communication Strategy

The planning process will develop communications strategies to reach key stakeholders and the health care community. A communication workgroup will determine how the partners in the project will work together. The workgroup will develop a communications management plan with a timeline and a budget. The management plan will also include methods for monitoring assessing the impact of the communication strategy. The workgroup will identify the audiences and determine the best way to reach, identify key message points and develop a “brand” or identity that is locally appropriate for the technology, and then will develop, pretest and finalize prototype the communication concepts, messages and materials with representatives of the target audiences. The communications strategic plan will then be implemented and assessed for effectiveness as a part of the overall evaluation of the project. Various methods of communications will be utilized including advertising and media advocacy. Various modes of communication will be utilized including newsletters, phone and personal contacts, e-mail, a web site, and social networking media such as Facebook and Twitter.

CHIMES will involve community-based organizations in a meaningful way in project planning and implementation. As noted earlier, HITAC is comprised of representatives from various community-based organizations. During the self-assessment and gap analysis process, input from community-based organizations that are not currently represented will be sought, and representatives will be solicited. Statewide implementation of an HIE will include free clinics and Federally Qualified Health Centers (FQHCs), community service boards and local health departments, thus targeting the traditionally medically underserved populations and the needs of special populations including newborns, children, youth, including those in foster care, the elderly, persons with disabilities, limited English proficiency (LEP) persons, persons with mental and substance use disorders, and those in long-term care.

CHIMES

Similarly, the interests of the other stakeholders will be considered and incorporated into planning and implementation activities. HITAC currently has representatives from health care providers, including those that provide services to low income and underserved populations, health plans and public health agencies. Other stakeholders, including patient or consumer organizations that represent the population to be served, HIT vendors, health care purchasers and employers, health professions schools, universities and colleges, clinical researchers, other users of HIT such as the support and clerical staff of providers and others involved in the care coordination of patients will be identified and invited to participate in the CHIMES project. The active and retired military represent a very high priority for CHIMES, and this initiative will leverage the meaningful work being conducted by the NHIN for connectivity and data exchange with the Departments of Veterans Affairs and Defense. Stakeholder involvement will also be augmented with a communication plan which will target various stakeholder groups.

Strategic Plan

The CHIMES project will develop a strategic plan that addresses the vision, mission, goals, objectives and strategies essential for statewide HIE development. The CHIMES Strategic Plan will also address continuous improvement in realizing effective and secure HIE across the healthcare system. The CHIMES Strategic Plan will address the five domains defined in the FOA by coordinating distinct and/or concurrent planning activities for each domain. The CHIMES Strategic Plan will address the evolution of capabilities supporting HIE, as well as progress in the five domains of HIE activity, the role of partners and stakeholders, and high-level project descriptions for planning, implementation, and evaluation.

The CHIMES Strategic Plan will include an environmental scan to thoroughly assess HIE readiness of health care providers within the state and potentially outside the state as relevant, and may include readiness for broad adoption of HIT. The environmental scan also will include an assessment of current HIE capacities that could be expanded or leveraged, HIT resources that could be used, the relevant collaborative opportunities that already exist, the human capital that is available and other information that indicates the readiness of HIE implementation statewide. CHIMES' environmental scan will be

CHIMES

coordinated with DMAS, as they are also required to perform a scan by CMS to complete a State Medicaid Health Information Technology Plan (SMHP).

The CHIMES Strategic Plan will address vision, goals, objectives and strategies associated with HIE capacity development and use among all health care providers in the state, to include meeting HIE meaningful use criteria to be established by the Secretary through the rulemaking process. The Strategic Plan will also address continuous improvement in realizing appropriate and secure HIE across health care providers for care coordination and improvements to quality and efficiency of health care. The CHIMES Strategic and Operational Plans will also address HIE between health care providers, public health and those offering services for patient engagement and consumer access to data.

The CHIMES Strategic Plan will describe the interdependencies and integration of efforts between the state's Medicaid HIT Plan and the statewide HIE development efforts. Coordination and collaboration in this area is facilitated by the inclusion of DMAS representatives on the HITAC and in the Office of Health IT. The description will include the state's HIE related requirements for meaningful use to be established by the Secretary through the rulemaking process as well as the mechanisms by which the state will measure provider participation in HIE.

The CHIMES Strategic Plan will describe the coordination activities with Medicare and relevant federally-funded state programs including: Epidemiology and Laboratory Capacity Cooperative Agreement Program (CDC), Assistance for Integrating the Long-Term Care Population into State Grants to Promote Health IT, Implementation (CMS/ASPE), HIV Care Grant Program Part B States/Territories Formula and Supplemental Awards/AIDS Drug Assistance Program Formula and Supplemental Awards (HRSA), Maternal and Child Health State Systems Development Initiative programs (HRSA), State Offices of Rural Health Policy (HRSA), State Offices of Primary Care (HRSA), State Mental Health Data Infrastructure Grants for Quality Improvement (SAMHSA), State Medicaid/CHIP Programs, IHS and tribal activity and Emergency Medical Services for Children Program (HRSA). The CHIMES Strategic Plan will include a description of the extent to which the various federal care delivery organizations, including but not limited to the VA, DoD, and Indian Health Services, will be participating in state

CHIMES

activities related to HIE. The CHIMES Strategic Plan will describe, when applicable, coordination mechanisms with other relevant ARRA programs including Regional Extension Centers, workforce development initiatives and broadband mapping and access.

A workgroup of the HITAC will be convened to address the **Governance** domain of the CHIMES project. During the planning process, the governance model and governance entity will be determined. The CHIMES Strategic Plan will describe the multidisciplinary, multi-stakeholder governance entity including a description of the membership, decision-making authority and governance model. The CHIMES Strategic Plan will identify the state Government HIT Coordinator, and will describe how the state coordinator will interact with the federally funded state health programs and also the HIE activities within the state. To ensure that HIE is pursued in the public's interest, the CHIMES Strategic Plan will address how the state will ensure HIE accountability and transparency.

A HITAC workgroup will be assigned to conduct planning activities with respect to the **Finance** domain. In order to ensure the financial sustainability of the project beyond the ARRA funding, the CHIMES Strategic Plan shall include a business plan that enables financial sustainability for HIE governance and operations, by the end of the project period of HIE governance and operations.

Planning activities related to the **Technical Infrastructure** domain will be addressed by one of the main partners, HITSAC. Among other things, HITSAC will consider utilizing Health Information Technology Standards Panel (HITSP) Capabilities and Interoperability Standards to the fullest extent possible for CHIMES. HITSP has been actively working to harmonize relevant standards. In July 2009, HITSP reorganized its work on 13 Interoperability Specifications (IS) and 60 related constructs into 26 Capabilities (CAP), to consolidate all information exchanges that involve an Electronic Health Record System. This work effort was organized around ARRA requirements in Title XIII (HITECH) Section 3000 Required Areas for Consideration; and Medicare and Medicaid Incentives defined in ARRA Title IV (Division B). HITSAC will address the Technical Infrastructure for the following components: (1) HITSP Interoperability Standards (2) Privacy and Security (3) Patient Identification (4) Network Architectural Models for Data and Centralized Services (5) Barriers and Possible Solutions and (6) Coded

CHIMES

Healthcare Vocabularies. The CHIMES Strategic Plan will indicate whether the HIE services will include participation in the NHIN. The plan will include the appropriate HHS adopted standards and certifications HIE, especially planning and accounting for meaningful use criteria to be established by the Secretary through the rulemaking process. The CHIMES Strategic Plan may include an outline of the data and technical architectures and describe the approach to be used, including the HIE services to be offered as appropriate for the state's HIE capacity development.

A HITAC workgroup will conduct planning activities related to the domain of ***Business and Technical Operations***. The CHIMES Strategic Plan will include a strategy that specifies how the state intends to meet meaningful use HIE requirements established by the Secretary, leverage existing state and regional HIE capacity and leverage statewide shared services and directories. The implementation strategy described in the strategic plan will describe the incremental approach for HIE services to reach all geographies and providers across the state. The implementation strategy will identify when the state HIE infrastructure will participate in the NHIN.

A workgroup of the HITAC will conduct planning activities related to the domain of ***Privacy and Security***. The CHIMES Strategic Plan shall address privacy and security issues related to HIE within the state, and between states. The HITAC will collaborate with the Virginia Health Information Security and Privacy Collaboration (HISPC), a state and federal sponsored, multi-year, public-private organization, whose primary mission is to develop tools, services and support to resolve privacy and security interoperability issues between health information organizations (HIO) across the Commonwealth. The VA HISPC, working with the Virginia HIT Council and the National Governors Association (NGA), has established a steering committee to work with the national HISPC collaboration currently comprising 45 states and territories. The common goal of these efforts is to establish consensus based solutions to resolve privacy and security interoperability issues between the states and across the nation.

The CHIMES Strategic Plan will give special attention to federal and state laws and regulations and adherence to the privacy principles articulated in the HHS Privacy and Security Framework, as well as any related guidance. The CHIMES Strategic Plan will address any plans to analyze and/or modify

CHIMES

state laws, as well as communications and negotiations with other states to enable exchange. The CHIMES Strategic Plan will also address the development of policies and procedures necessary to enable and foster information exchange within the state and with other states. The CHIMES Strategic Plan will discuss the use of existing trust agreements or the development of new trust agreements among parties to the information exchange in order to best enable the secure flow of information. Trust agreements include but are not limited to data sharing agreements, data use agreements and reciprocal support agreements. The CHIMES Strategic Plan will address how the state will address issues of noncompliance with federal and state laws and policies applicable to HIE.

The CHIMES project expects to encounter barriers related to technical, legal, financial, organizational, Medicaid and Medicare coordination, privacy and security, interoperability, and consensus definitions during the course of the project. The Office of Health IT and HITAC are comprised of members with subject matter expertise in all of these areas, in order to maximize these capabilities to overcome barriers through work already accomplished..

Required Performance Measures and Reporting

A workgroup of the HITAC will be convened to address planning activities for project evaluation and performance measures and reporting. The CHIMES project will adhere to any required performance measures and reporting, including measures related to the following domains: governance, finance, technical infrastructure, business and technical operations and legal/policy, as specified in the guidance. The CHIMES project will adhere to future specific reporting requirements, performance and evaluation measures and methods to collect data and evaluate project performance that will be provided at a later date in program guidance and through technical assistance, prior to award of cooperative agreements.

Project Management

CHIMES will be a collaborative undertaking of the Virginia's Office of Health Information Technology and the Health Information Technology Advisory Commission (HITAC). The Office of

CHIMES

Health IT will continue to support the CHIMES project throughout the planning and implementation phases, allowing the state to use its authority, programs and resources, as follows: to develop state level directories and enable technical services for HIE within and across states; to remove barriers and create enablers for HIE, particularly those related to interoperability across laboratories, hospitals, clinician offices, health plans and other health information trading partners; to convene health care stakeholders to ensure trust in and support for a statewide approach to HIE; to ensure that an effective model for HIE governance and accountability is in place; to coordinate an integrated approach with Medicaid and state public health programs to enable information exchange and support monitoring of provider participation in HIE as required for Medicaid meaningful use incentives; and to develop or update privacy and security requirements for HIE within and across state borders. The office houses staff with expertise in project management, health research and evaluation, privacy and security, and Medicaid Management Information Systems. The staff has experience in system design, deployment, and accountability. Current members of the Office of Health IT will be detailed below:

Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. Ms. Barnes holds a masters degree in business administration and has vast experience in policy and legislation analysis and development related to health, HIPAA, and health information technology. Ms. Barnes will be the CHIMES Coordinator and retain authority over the project. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

Dr. Jim Burns, Deputy Commissioner for the Virginia Department of Health, will lead in convening health care stakeholders to ensure trust in and support for a statewide approach for HIE. Dr. Burns will provide direction to the project and review project deliverables.

Robin Buskey is a health programs analyst for the Virginia Department of Health. She holds a masters degree in public administration and is a certified project management professional (PMP). Ms. Buskey will assist the HIT coordinator in managing project activity in accordance with the project plan,

CHIMES

monitor ongoing progress, prepare status reports, and maintain communication with project team members, partners, and stakeholders.

Chris Doucette serves as the agency Privacy Officer for the Department of Medical Assistance Services (DMAS) and is dedicated to ensuring ongoing education and compliance in Privacy and Security of health care records for the Commonwealth of Virginia and the State's Medicaid Management Information System (MMIS). He is also the Project Manager for the Virginia Health Information Security and Privacy Collaborative (HISPC) project, and serves as the Commonwealth's representative to the HISPC Standards Adoption Collaborative. Mr. Doucette has extensive experience in the field of healthcare and government service, with over 25 years in the field of Information Technology. Mr. Doucette has also served on state legislative committees for Electronic Medical Records Standards and the Juvenile Rights Commission. Mr. Doucette has considerable project management experience, in the United States and overseas, including positions as Chief Technology Officer (CTO) of the international biometric systems company, SBTS Group Inc. in Sierra Leone, Africa; and as Senior Project manager developing radiology accreditation systems for the American College of Radiology (ACR) in Reston, Virginia. He has also worked for different public and private health care organizations on HIPAA compliance risk assessments and remediation projects, while as Healthcare Practice Director and Chief Privacy Officer for Marlabs, Inc. of New Jersey.

Dave Mix serves as the Medicaid Information Technology Architecture (MITA) Program Manager for the Virginia Department of Medical Assistance Services (DMAS). Mr. Mix has worked on numerous Medicaid Management Information System (MMIS) IT projects and has over 35 years of extensive experience in Information Technology (IT). Mr. Mix has extensive project management experience, is a certified Project Management Professional (PMP), and is qualified by the Virginia Project Management Division (PMD) as a project manager for major IT projects. Mr. Mix will be responsible for managing the project to create the CMS required State Medicaid HIT Plan (SMHP) in close coordination with the effort to prepare Virginia's HIT/E strategic and operational plans.

CHIMES

Michelle White is an assessment and health intelligence coordinator for the Virginia Department of Health. Ms. White has worked on numerous agency-wide IT projects and has extensive experience in health services research and evaluation. She will be responsible for helping with the creation of work products, identifying project barriers and solutions, and coordinating project evaluation activities.

Upon receipt of grant funds, it is anticipated that two additional positions will be created to permanently staff the project. It is anticipated that additional resources, in the form of consultants or contract staff, will be utilized throughout the planning and implementation phases to provide specialized skills and subject matter expertise. The two permanent staff positions are listed below.

Project Manager (1 FTE) – the project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the following essential duties and responsibilities:

1. Project Management:

- Create and execute project work plans and revise as appropriate to meet changing needs and requirements.
- Develop the Work Breakdown Structure (WBS) for CHIMES, to include defining and grouping all tasks that must be performed to complete project scope.
- Developing staffing and scheduling plans (time management) for use in budget/cost reporting
- Responsible for program scope, approach, schedule and budget.
- Coordinate and work with vendors, subcontractors, consultants to initiate discussions and develop solutions.
- Perform issue tracking and risk management and mitigation as required for all assigned projects.
- Manage day-to-day operational aspects of a project and its scope
- Ensures project documents are complete, current, and stored appropriately
- Exhibit strong deadline and task management skills

2. Communication

- Responsible for frequent communication with project stakeholders and staff.
- Effectively communicate relevant project information to superiors

CHIMES

- Facilitate team, client and vendor meetings effectively
- Understand how to communicate difficult/sensitive information tactfully
- Keep track of lessons learned and apply those lessons to future projects
- Possess excellent ability to verbal and written communicate skills with technical and non-technical staff
- Possess sound discretionary judgment skills

3. Documentation and Reporting:

- Prepare and coordinate reporting to partners and ONC to support the program and maintain compliance with contract requirements
- Responsible for documentation of workflow procedures and plans

Administrative Assistant (1FTE) – the administrative assistant will provide administrative support to the Office of Health IT and to the HITAC. The administrative assistant will report to the CHIMES project manager.

Industry standard project-management disciplines will be followed. The following are the project management plan components:

- MS work plan that addresses scope and schedule;
- Resource management plan;
- Budget/Cost management plan;
- Configuration management plan that addresses project change management;
- Quality management plan that addresses project quality;
- Communications management plan that addresses project communication; and
- Risk management plan.

The project will be monitored using standard project management software to track the work plan for deliverables, tasks, and milestones. The project manager and the VDH HIT office will be involved in weekly project status meetings. The planning process deliverables will be monitored by the project manager according to the work plan. Project status will be reported by the agency in monthly status reports to the Secretary of Health and Human Resources. Periodic conference calls with the ONC may be made to address any issues. All issues and resolutions will be documented.

Evaluation

A workgroup of the HITAC will be convened to address evaluation and performance measures and reporting. This workgroup will develop the method(s), techniques and tools that will be used to track and maintain project information which will be required to conduct a self-evaluation of the project and to inform a national program-level evaluation. Evaluation will be integrated into the planning process, and feedback will be used to inform and guide all activities. No less than two percent of the budget will be allocated to evaluation activities during the funding period.

Organizational Capacity

The Virginia Department of Health (VDH) provides a wide range of products and services to promote and protect public health. The definition of public health can be expressed as what society does collectively to create those conditions in which people can be healthy. VDH serves as a leader and coordinator of Virginia's public health system. In conjunction with partners in the federal government and private sector, VDH plays a fundamental role in protecting and promoting the health of Virginians.

Generally, VDH services are delivered to the public by local health departments or by VDH field offices, with the VDH central office providing training, technical assistance, policy development, quality assurance, evaluation and administrative support. Each county and city in Virginia is required to establish and maintain a local health department. Pursuant to statutory authority, VDH has organized these 119 local health departments into 35 health districts to achieve efficiencies in operations. This structure allows for a statewide presence, and broad program priorities for public health. VDH has 41 service areas that can be broadly categorized as: communicable disease prevention and control, environmental health hazards protection, emergency preparedness and response and emergency medical services, health assessment, promotion and education, health planning, quality oversight and access to care, drinking water protection, vital records and health statistics, medical examiner and anatomical services, administrative and support services, and financial assistance to improve access to health care and emergency medical services. VDH has considerable experience in HIT including initiating EHR

CHIMES

procurement for its statewide clinics. Through a staff of experienced IT designers, the agency also built out and deployed a practice management utility known as WebVision. In keeping with its mission, the agency also maintains communicable disease registries, an immunization information system, and an advance healthcare directive registry. By Executive Order, the Office of Health Information Technology resides within VDH and the Director is appointed by the Secretary of Health and Human Resources in consultation with the Commissioner of Health.

Collaboration:

As noted throughout this application, the CHIMES project will be accomplished through a multi-stakeholder collaborative process. Virginia has dedicated these resources, specifically the Office of Health IT and the HITAC and has specified their relationship and reporting structures, by executive orders which are attached in the appendix. Additional collaborations and partnerships will be formalized during the planning phase, and the appropriate MOAs or business agreements will be enacted and presented to ONC as needed.

CHIMES

Appendix

Executive Order 95 Creating the Health IT Advisory Commission

HITAC Commission Members

Organizational Chart for CHIMES Project

Resumes of Key Personnel

Letters of Support

CHIMES

Year 1 Planning Period Budget Justification – Award date – Aug/Sept 2010 (FY 2010)

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	9	\$66,667
CHIMES Project Manager To Be Hired	100	9	\$66,667
Admin Asst To be hired	100	9	\$26,667
			Total \$160,000

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description in Appendix.

The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager.

B. Fringe Benefits

30% of \$160,000 (total salaries) = \$48,000

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$48,000

Personnel Costs (Salaries, Wages, and Fringe) Total \$208,000

C. Equipment = \$10,000

Justification: These funds will be used to purchase computers, printers, and other equipment needed for the three FTEs allotted to this project, as well as additional equipment needed during the planning phase:

Total \$10,000

D. Supplies = \$9,610

Justification: General office supplies (pens, pencils, paper etc.) (\$600 x 3 FTE) = \$1800. Additional supplies will be provided for the HITAC and other collaborators as needed

Total \$9,610

E. Travel = \$30,000

Out-of-State travel

1 trips x 2 persons x \$400 r/t airfare	\$800
3 days per diem x \$55 x 2 persons	\$330
4 nights lodging @ \$117 x 2 persons	\$963
6 days @ \$10 per day for Airport Parking	\$ 60
Total	\$2,126

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$30,000

F. Other

Telephone and FAX (\$60 per month X 3 FTE X 9 months) \$ 1,620

Postage/Mail Services (\$50 per month X 3 FTE X 9 months) \$ 1,350

Justification: General office use and dissemination of reports and SC minutes.

General office copying (\$50 per month X 3 FTE X 9 months) \$1,350

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 9 months) \$ 2,700

Justification: Office of Information Management support services for computer operations.
Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 9 months) \$8,370

Total \$15,390

G. Consortium/Contractual

Justification: Additional expertise and technical assistance will be required during the planning process. VDH will contract to conduct the environmental scan in conjunction with DMAS. At least \$24,260 will be allotted to the evaluation process for the project (2% of total budget) approximately \$250,000 will be allotted to legal consultation. The remaining will be used to contract for expertise in strategic planning, technical architecture, and communication plans, and other areas needed to stand up a state-level HIE.

Total \$927,312
Direct Total: \$1,215,512

Indirect

Indirect based on 9.5% of total salary and wages **Indirect Total \$15,200**

Justification: The OFHS, VDH's approved indirect cost rate agreement is 9.5% of direct salaries and wages excluding all fringe benefits.

Total for Planning Period: \$1,215,512

Year 1 Q4 Operational Period Budget Justification –OCT 2010 – Dec 2010 (FY 2011)

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	3	\$22,222
CHIMES Project Manager To Be Hired	100	3	\$22,222,
Admin Asst To be hired	100	3	\$8,889
			SUB Total \$53,333

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description in Appendix XX.

The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager *Additional funding (\$37,790) has been allotted to the personnel category to add positions necessary for the implementation phase (if determined to be necessary in the planning phase).*

Total \$91,124.00

B. Fringe Benefits

30% of \$91,134 (total salaries) = \$27,336

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$27,336

Personnel Costs (Salaries, Wages, and Fringe) Total \$118,460

C. Equipment = \$212,205

Justification: These funds will be used to purchase computers, printers, and other equipment needed for this portion of the implementation phase **Total \$212,205**

D. Supplies = \$2,696

E. Justification: General office supplies (pens, pencils, paper etc.) for this period of the implementation phase

Total \$2,696

F. Travel = \$205,776

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$205,776

G. Other

Telephone and FAX (\$60 per month X 3 FTE X 3 months) \$ 540

Postage/Mail Services (\$50 per month X 3 FTE X 3 months) \$ 450

Justification: General office use and dissemination of reports and SC minutes.

General office copying (\$50 per month X 3 FTE X 3 months) \$450

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 3 months) \$ 900

Justification: Office of Information Management support services for computer operations. Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 3 months) \$2790

Total = 4680

An additional amount of funding has been allotted to this category for other expenses incurred during this portion of the implementation phase.

Total \$233,790

H. Consortium/Contractual = \$ 787,925

Justification: Additional expertise and technical assistance will be required during this portion of the implementation process. .

Total \$787,924

Direct Total \$1,560,851

Indirect

Indirect based on 9.5% of total salary and wages

Indirect Total \$8,657

Justification: The OFHS, VDH's approved indirect cost rate agreement is 9.5% of direct salaries and wages excluding all fringe benefits.

Match (10% of federal funds during this quarter)

Total Match– \$156,950

Total Project Cost \$1,726,458

	Year 1 Total
A. Salaries and Wages	\$251,124
B. Fringe	\$75,336
Personnel Costs subtotal	\$326,420
C. Equipment	\$222,205
D. Supplies	\$12,306
E. Travel	\$235,776
F. Other	\$249,180
G. Consortium/Contractual	\$1,715,236
Total Direct	\$2,767,530
Indirect	\$23,857
Match	\$156,950
Total Project Cost	\$2,941,970

CHIMES

Year 2 Q1-Q3 Implementation Period Budget Justification – Jan 2011 - Sept 2011 (FY 2011)

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	9	\$66,667
CHIMES Project Manager To Be Hired	100	9	\$66,667
Admin Asst To be hired	100	9	\$26,667
			SubTotal \$160,000

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description in the appendix.

The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager.

Additional funding (\$113,370) has been allotted to this category to account for additional personnel needed during this portion of the implementation phase

Total \$273,370

B. Fringe Benefits

30% of \$273,370 (total salaries) = \$82,011

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$82,011

Personnel Costs (Salaries, Wages, and Fringe) Total \$355,381

C. Equipment = \$636,616

Justification: These funds will be used to purchase computers, printers, and other equipment needed for the three FTEs allotted to this project, as well as additional equipment needed during the planning phase:

Total \$636,616

D. Supplies = \$8,087

Justification: General office supplies (pens, pencils, paper etc.) (\$600 x 3 FTE) = \$1800. Additional supplies will be provided for the HITAC and other collaborators as needed

Total \$8,087

E. Travel = \$617,328

Out-of-State travel

1 trips x 2 persons x \$400 r/t airfare	\$800
3 days per diem x \$55 x 2 persons	\$330
4 nights lodging @ \$117 x 2 persons	\$700
6 days @ \$10 per day for Airport Parking	\$ 60
Total	\$2,126

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$617,328

F. Other

Telephone and FAX (\$60 per month X 3 FTE X 9 months) \$ 1,620

Postage/Mail Services (\$50 per month X 3 FTE X 9 months) \$ 1,350

Justification: General office use and dissemination of reports and SC minutes.

General office copying (\$50 per month X 3 FTE X 9 months) \$1,350

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 9 months) \$ 2,700

Justification: Office of Information Management support services for computer operations.

Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 9 months) \$8,370

Additional funds have been allotted to this category to cover costs during the implementation phase

Total \$701,370

G. Consortium/Contractual = \$ 2,363,724

Justification: Additional expertise and technical assistance will be required during the implementation process. 2% of total budget will be allotted to evaluation.

Total \$2,363,905

Total Direct: 4,682,687

Indirect

Indirect based on 9.5% of total salary and wages

Indirect Total \$25,970

Justification: The OFHS, VDH's approved indirect cost rate agreement is 9.5% of direct salaries and wages excluding all fringe benefits.

Total Funds \$4,708,657

Match (10% of Federal funds during this period)

Total Match \$470,866

Total Project Cost \$5,179,523

Year 2 Q4 Implementation Period Budget Justification –OCT 2011 – Dec 2011 (FY 2012)

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	3	\$22,222
CHIMES Project Manager To Be Hired	100	3	\$22,222,
Admin Asst To be hired	100	3	\$8,889
			SubTotal \$53,333

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description in the appendix.

The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager

Additional funding (\$168,596) has been allotted to the personnel category to add positions necessary for the implementation phase (if determined to be necessary in the planning phase).

Total \$221,929

B. Fringe Benefits

CHIMES Budget 10-13-2009

30% of 221,929 (total salaries) = \$66579

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$66,579

Personnel Costs subtotal (Salaries, Wages, and Fringe) Total \$288,507

C. Equipment

Justification: These funds will be used to purchase computers, printers, and other equipment needed for this portion of the implementation phase

Total \$15,549

D. Supplies

Justification: General office supplies (pens, pencils, paper etc.) for this period of the implementation phase

Total \$1,403

E. Travel

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$4,698

F. Other

Telephone and FAX (\$60 per month X 3 FTE X 3 months) \$ 540

Postage/Mail Services (\$50 per month X 3 FTE X 3 months) \$ 450

Justification: General office use and dissemination of reports and SC minutes.

General office copying (\$50 per month X 3 FTE X 3 months) \$450

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 3 months) \$ 900

Justification: Office of Information Management support services for computer operations. Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 3 months) \$2790

Total

An additional amount of funding has been allotted to this category for other expenses incurred during this portion of the implementation phase.

Total \$90,097

H. Consortium/Contractual

Justification: Additional expertise and technical assistance will be required during this portion of the implementation process. .

Total \$72,436

Total Direct \$472,691

Indirect

Indirect based on 9.5% of total salary and wages

Indirect Total \$21,083

Justification: The OFHS, VDH's approved indirect cost rate agreement is 9.5% of direct salaries and wages excluding all fringe benefits.

Total Funds \$493,774

Match (14% of federal funds during this quarter)

Total Match – \$70,539
Project Total =\$564,313

PY2 Total

A. Salaries and Wages	\$495,299
B. Fringe	\$148,608
Personnel Costs subtotal	\$643,889
C. Equipment	\$652,165
D. Supplies	\$9,490
E. Travel	\$622,026
F. Other	\$791,467
G. Consortium/Contractual	\$2,436,314
Total Direct	\$5,155,378
Indirect	\$39,277
Match	\$541,405
Total Project Cost	\$5,743,836

CHIMES

Year 3 Q1-Q3 Implementation Period Budget Justification – Jan 2012 - Sept 2012 (FY 2012)

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	9	\$66,667
CHIMES Project Manager To Be Hired	100	9	\$66,667
Admin Asst To be hired	100	9	\$26,667
			SubTotal \$160,000

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description in the appendix.

The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager.

Additional funding (\$505,787 has been allotted to this category to account for additional personnel needed during this portion of the implementation phase

Total \$665,787

B. Fringe Benefits

CHIMES Budget 10-13-2009

30% of \$665,787 (total salaries) = \$199,736

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$199,736

Personnel Costs subtotal (Salaries, Wages, and Fringe) Total \$865,526

C. Equipment

Justification: These funds will be used to purchase computers, printers, and other equipment needed for the three FTEs allotted to this project, as well as additional equipment needed during the planning phase:

Total \$46,652

D. Supplies

Justification: General office supplies (pens, pencils, paper etc.) (\$600 x 3 FTE) = \$1800. Additional supplies will be provided for the HITAC and other collaborators as needed

Total \$4,209

E. Travel

Out-of-State travel

1 trips x 2 persons x \$400 r/t airfare	\$800
3 days per diem x \$55 x 2 persons	\$330
4 nights lodging @ \$117 x 2 persons	\$700
6 days @ \$10 per day for Airport Parking	\$ 60
Total	\$2,126

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$14,095

F. Other

Telephone and FAX (\$60 per month X 3 FTE X 9 months) \$ 1,620

Postage/Mail Services (\$50 per month X 3 FTE X 9 months) \$ 1,350

Justification: General office use and dissemination of reports and SC minutes.

General office copying (\$50 per month X 3 FTE X 9 months) \$1,350

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 9 months) \$ 2,700

Justification: Office of Information Management support services for computer operations.
Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 9 months) \$8,370

Additional funds have been allotted to this category to cover costs during the implementation phase

Total \$270,104

G. Consortium/Contractual Justification: Additional expertise and technical assistance will be required during the implementation process. 2% of total budget will be allotted to evaluation.

Total \$698,790

Total Direct: \$1,899,376

Indirect

Indirect based on 9.5% of total salary and wages

Indirect Total \$62,299

Justification: The OFHS, VDH's approved indirect cost rate agreement is 9.5% of direct salaries and wages excluding all fringe benefits.

Match (14% of Federal funds during this period)

Total Funds \$1,961,675

Total Match \$280,225

Total Project Cost: \$2,241,900

Year 3 Q4 Implementation Period Budget Justification –OCT 2012 – Dec 2012 (FY 2013)

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	3	\$22,222
CHIMES Project Manager To Be Hired	100	3	\$22,222,
Admin Asst To be hired	100	3	\$8,889
			SubTotal \$53,333

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description in Appendix XX. The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager. Additional funding (\$47,943) has been allotted to the personnel category to add positions necessary for the implementation phase (if determined to be necessary in the planning phase).

Total \$101,276

B. Fringe Benefits

CHIMES Budget 10-13-2009

30% of \$101,276 (total salaries) = \$30,383

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$30,383

Personnel Costs subtotal (Salaries, Wages, and Fringe) Total \$131,659

C. Equipment

Justification: These funds will be used to purchase computers, printers, and other equipment needed for this portion of the implementation phase

Total \$17,441

D. Supplies

Justification: General office supplies (pens, pencils, paper etc.) for this period of the implementation phase

Total \$1,485

E. Travel

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$5,603

F. Other

Telephone and FAX (\$60 per month X 3 FTE X 3 months) \$ 540

Postage/Mail Services (\$50 per month X 3 FTE X 3 months) \$ 450

Justification: General office use and dissemination of reports and SC minutes.

General office copying (\$50 per month X 3 FTE X 3 months) \$450

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 3 months) \$ 90062917

Justification: Office of Information Management support services for computer operations. Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 3 months) \$2790

Total = 4680

An additional amount of funding has been allotted to this category for other expenses incurred during this portion of the implementation phase.

Total \$62,917

H. Consortium/Contractual

Justification: Additional expertise and technical assistance will be required during this portion of the implementation process. .

Total \$137,770

Total Direct: \$356,875

Indirect

Indirect based on 9.5% of total salary and wages

Indirect Total \$9,621

Justification: The OFHS, VDH's approved indirect cost rate agreement is 9.5% of direct salaries and wages excluding all fringe benefits.

Total Funds \$366,496

Match (33% of federal funds during this quarter)

Total Match – \$122,165

Total Project Cost \$488,661

PY3 Total

A. Salaries and Wages	\$767,063
B. Fringe	\$230,122
Personnel Costs subtotal	\$917,185
C. Equipment	\$64,093
D. Supplies	\$5,694
E. Travel	\$19,698
F. Other	\$333,021
G. Consortium/Contractual	\$836,560
Total Direct	\$2,256,251
Indirect	\$71,920
Match	\$402,390
Total Project Cost	\$2,730,561

CHIMES

Year 4 Q1-Q3 Implementation Period Budget Justification – Jan 2013 - Sept 2013 (FY 2013)

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	9	\$66,667
CHIMES Project Manager To Be Hired	100	9	\$66,667
Admin Asst To be hired	100	9	\$26,667
			SubTotal \$160,000

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description the appendix.

The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager. Additional funding (143,829) has been allotted to this category to account for additional personnel needed during this portion of the implementation phase

Total \$303,829

B. Fringe Benefits

CHIMES Budget 10-13-2009

30% of \$303,829 (total salaries) = \$91,143

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$91,143

Personnel Costs subtotal (Salaries, Wages, and Fringe) Total \$394,972

C. Equipment

Justification: These funds will be used to purchase computers, printers, and other equipment needed for the three FTEs allotted to this project, as well as additional equipment needed during the planning phase:

Total \$52,323

D. Supplies

Justification: General office supplies (pens, pencils, paper etc.) (\$600 x 3 FTE) = \$1800. Additional supplies will be provided for the HITAC and other collaborators as needed

Total \$4,455

E. Travel

Out-of-State travel

1 trips x 2 persons x \$400 r/t airfare	\$800
3 days per diem x \$55 x 2 persons	\$330
4 nights lodging @ \$117 x 2 persons	\$700
6 days @ \$10 per day for Airport Parking	\$ 60
Total	\$2,126

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$16,809

F. Other

Telephone and FAX (\$60 per month X 3 FTE X 9 months) \$ 1,620

Postage/Mail Services (\$50 per month X 3 FTE X 9 months) \$ 1,350

Justification: General office use and dissemination of reports and SC minutes.

CHIMES Budget 10-13-2009

General office copying (\$50 per month X 3 FTE X 9 months) \$1,350

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 9 months) \$ 2,700

Justification: Office of Information Management support services for computer operations.
Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 9 months) \$8,370

Additional funds have been allotted to this category to cover costs during the implementation phase

Total \$188,752

G. Consortium/Contractual Justification: Additional expertise and technical assistance will be required during the implementation process. 2% of total budget will be allotted to evaluation.

Total \$236,483

Total Direct: \$893,749

Indirect

Indirect based on 9.5% of total salary and wages

Indirect Total \$28,863

Justification: The OFHS, VDH's approved indirect cost rate agreement 9.5% of direct salaries and wages excluding all fringe benefits.

Total funds \$922,612

Match (33% of Federal funds during this period)

Total Match \$307,537

Total Project Cost: \$1,230,149

Year 4 Q4 Implementation Period Budget Justification –OCT 2013 – Dec 2013 (FY 2014)

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	3	\$22,222
CHIMES Project Manager To Be Hired	100	3	\$22,222,
Admin Asst To be hired	100	3	\$8,889
			Sub Total \$53,333

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description in the appendix. The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager. Additional funding(\$72,499) has been allotted to the personnel category to add positions necessary for the implementation phase (if determined to be necessary in the planning phase).

Total \$125,832

B. Fringe Benefits

30% of \$101,276 (total salaries) = \$37,749

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$37,749

Personnel Costs subtotal (Salaries, Wages, and Fringe) Total \$160,581

C. Equipment

Justification: These funds will be used to purchase computers, printers, and other equipment needed for this portion of the implementation phase

Total \$22,363

D. Supplies

Justification: General office supplies (pens, pencils, paper etc.) for this period of the implementation phase

Total \$700

E. Travel

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$10,737

F. Other

Telephone and FAX (\$60 per month X 3 FTE X 3 months) \$ 540

Postage/Mail Services (\$50 per month X 3 FTE X 3 months) \$ 450

Justification: General office use and dissemination of reports and SC minutes.

General office copying (\$50 per month X 3 FTE X 3 months) \$450

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 3 months) \$ 900

Justification: Office of Information Management support services for computer operations. Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 3 months) \$2790

Total = 4680

An additional amount of funding has been allotted to this category for other expenses incurred during this portion of the implementation phase.

Total \$150,558

H. Consortium/Contractual

Justification: Additional expertise and technical assistance will be required during this portion of the implementation process. .

Total \$15,410
Total Direct \$363,349

Indirect

Indirect based on of total salary and wages **Indirect Total \$11,954**

Justification: The OFHS, VDH's approved indirect cost rate agreement is 9.5% of direct salaries and wages excluding all fringe benefits.

Match (33% of federal funds during this quarter) **Match Total – \$125,101**
Total Project Cost \$500,404

	PY4 Total
A. Salaries and Wages	\$429,652
B. Fringe	\$128,892
Personnel Costs subtotal	\$558,553
C. Equipment	\$74,686
D. Supplies	\$5,155
E. Travel	\$27,546
F. Other	\$251,848
G. Consortium/Contractual	\$339,310
Total Direct	\$1,257,098
Indirect	\$40,817
Match	\$1,297,915
Total Project Cost	\$1,730,553

CHIMES
Four Year Budget Justification

A. Salaries and Wages

Position	% Time	Months	Amount Requested
Office of Health IT State Coordinator/Director Kim Barnes	100	48	\$400,00
CHIMES Project Manager To Be Hired	100	48	\$400,000
Admin Asst To be hired	100	48	\$160,000
			Total \$204,000

Justification: Kim Barnes is the director of the Office of Health Information Technology, Virginia Department of Health. She will have primary responsibility for planning, directing and executing the proposed project. Ms. Barnes will oversee the development of the strategic and operational plans and maintain communication with ONC.

The Project manager will be responsible for the day-to-day responsibility of the projects key activities and maintain communication with the project stakeholders. The project manager will coordinate efforts with the HITAC and the workgroups developed for this project. The project manager position will have the essential duties and responsibilities of project management, communication, and documentation and reporting. See attached job description in Appendix.

The administrative assistant will provide administrative support to the Office of Health IT, and to the HITAC. The administrative assistant will report to the CHIMES project manager. Additional personnel funds have been added to account for staff needed to plan and implement a state-level HIE

Total \$1,943,148

B. Fringe Benefits

CHIMES Budget 10-13-2009

30% of \$1943148 (total salaries) = \$48,000

Justification: Fringe benefits covering retirement, FICA, insurance and Workers Compensation are calculated at 30% of total salaries.

Total \$582,940

Personnel Costs subtotal (Salaries, Wages, and Fringe) Total \$2,526,087

C. Equipment

Justification: These funds will be used to purchase computers, printers, and other equipment needed for needed during the planning and implementation phases:

Total \$1,013,149

D. Supplies

Justification: General office supplies (pens, pencils, paper etc.) Additional supplies will be provided for the HITAC and other collaborators as needed for planning and implementation

Total \$32,645

E. Travel

Out-of-State travel

1 trips x 2 persons x \$400 r/t airfare	\$800
3 days per diem x \$55 x 2 persons	\$330
4 nights lodging @ \$117 x 2 persons	\$700
6 days @ \$10 per day for Airport Parking	\$ 60
Total \$2,126 x 4 years = \$8,504	

Justification: General out of state travel rates for meetings as needed for ONC for purposes of this application. Additional in – state travel costs will be for state-wide travel necessary to support the planning process. State travel guidelines will be followed with respect to travel, lodging, per diem, and mileage reimbursements.

Total \$905,046

F. Other

Telephone and FAX (\$60 per month X 3 FTE X 48 months) \$ 8,640

Postage/Mail Services (\$50 per month X 3 FTE X 48 months) \$ 7,200

Justification: General office use and dissemination of reports and SC minutes.

General office copying (\$50 per month X 3 FTE X 48 months) \$7,200

Justification: General office copies, and copies of SC minutes, reports and fact sheets.

Computer Services (\$100 per month per x 3 FTE x 48 months) \$ 14,400

Justification: Office of Information Management support services for computer operations.

Prorated charge to all projects for computer support, including email and Internet.

Building Rental (\$310 per month X 3 FTE x 48 months) \$44,640

Total \$82,080. Additional funding has been added to this category to account for expenses incurred during the planning and implementation of a state-level HIE

Total \$1,712,978

G. Consortium/Contractual = \$ 5,959,542

Justification: Additional expertise and technical assistance will be required during the planning process.

Total \$5,239,985

Total Direct \$11,429,890

Indirect

Indirect based on 9.5% of total salary and wages

Indirect Total \$183,647

Justification: The OFHS, VDH's approved indirect cost rate agreement is 6.1% of direct salaries and wages excluding all fringe benefits.

Total Funding \$11,613,537

Total Match \$1,533,383

Total Project Cost \$13,146,920

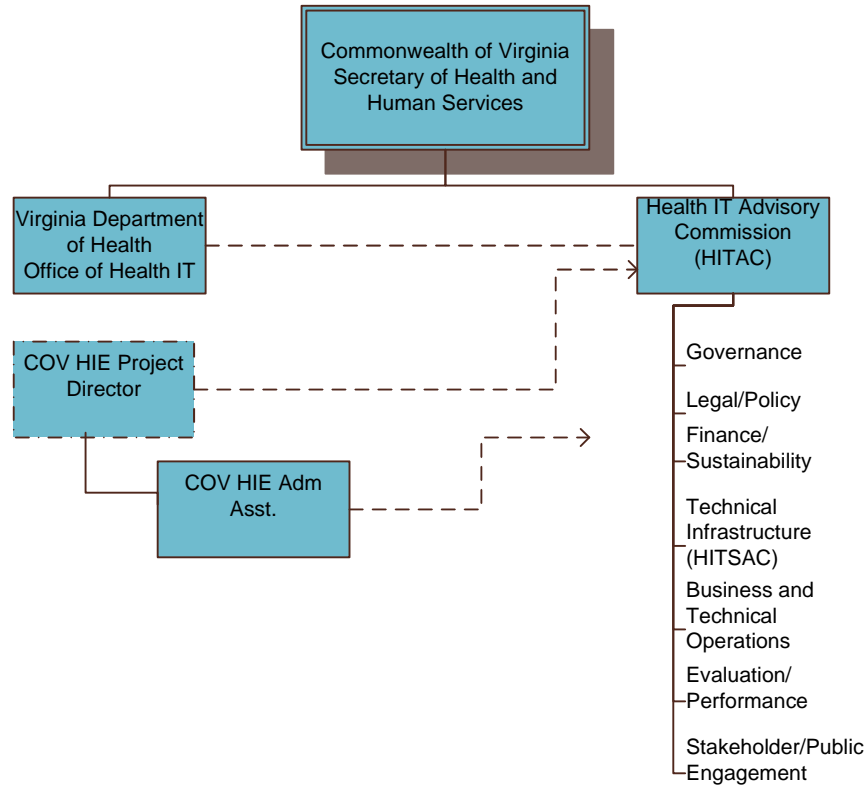
PY1-4 Total

A. Salaries and Wages	\$1,943,138
B. Fringe	\$582,941
Personnel Costs subtotal	\$2,526,087
C. Equipment	\$1,013,149
D. Supplies	\$32,645
E. Travel	\$905,046
F. Other	\$1,712,978
G. Consortium/Contractual	\$5,239,985
Total Direct	\$11,429,890
Indirect	\$183,647
Match	\$1,533,383
Total Project Cost	\$13,146,920

**CHIMES Budget totals by Fiscal
Year**

	FY2011	FY2012	FY2013	FY2014	FY 2011-2014 Total
A. Salaries and Wages	\$364,494	\$887,716	\$405,105	\$125,823	\$1,961,144
B. Fringe	\$109,347	\$266,318	\$121,526	\$37,749	\$588,334
Personnel Costs subtotal	\$473,841	\$1,154,034	\$526,631	\$394,972	\$2,549,478
C. Equipment	\$848,821	\$62,201	\$69,764	\$22,363	\$1,033,109
D. Supplies	\$10,783	\$5,612	\$5,940	\$700	\$26,790
E. Travel	\$823,104.	\$18,793	\$22,412	\$10,737	\$881,118
F. Other	\$935,160	\$360,139	\$251,669	\$150,558	\$1,735,782
G.					
Consortium/Contractual	\$3,151,829	\$771,226	\$374,208	\$15,410	\$4,33,701
Total Direct	\$6,243,538	\$2,372,067	\$1,250,624	\$363,349	\$10,759,978
Indirect	\$29,292	\$83,382	\$38,484	\$11,954	\$185,356
Match	\$6,278,165	\$350,764	\$429,702	\$124,101	\$1,715,819
Total Project Cost	\$6,905,981	\$2,806,213	\$1,718,810	\$500,404	\$12,661,153

Commonwealth Health Information Management & Exchange System CHIMES



- Other partners:
- CommonwealthRX
 - MedVirginia, LLC
 - CentraHealth
 - Surescripts
 - NOVARHIO
 - CareSpark
 - CCNV
 - VHI
 - VTN
 - VHEN
 - VITA
 - DMAS
 - DCLS
 - VDA