

A Message from the State Health Commissioner

It is a privilege to serve as State Health Commissioner, and I am grateful to have been reappointed by Governor McDonnell. I take great pride in the mission of the Virginia Department of Health (VDH) to promote and protect the health of all Virginians. The Virginia Health Reform Initiative, led by Dr. Bill Hazel, Secretary of Health and Human Resources, underscores the importance of finding innovative health care solutions that meet the needs of Virginians. As a leader of the Commonwealth's public health system, VDH touches the lives of every Virginian every day. This year's Annual Report illustrates just a few examples of the work done by our agency.

In response to limited financial resources and increasing demand for core public health services, VDH continues to find innovative approaches to service delivery while ensuring that our agency demonstrates responsible stewardship of state revenues. Over the past year, VDH engaged in a range of partnerships with the private sector and other agencies to improve the state's public health system. For example, VDH worked with hospitals and emergency physicians to develop guidelines for addressing the temporary "boarding" of hospital patients in hospital emergency departments across the state. This effort will promote improved delivery of health care services to Virginians. Continuing our commitment to reducing the infant mortality rate, VDH partnered with the Healthy Mothers Healthy Babies Coalition to implement the national Text4Baby project. This is a free mobile phone information service that supports pregnant women and new mothers with timely health information. VDH also worked closely with communities across the state to help them provide clean, safe drinking water to their residents. A particularly successful project in Harrisonburg is described in this report

In addition to providing day-to-day public health services to Virginians across the Commonwealth, VDH faced the task of preventing and controlling the spread of H1N1 influenza in 2009. Working together with other state agencies, private providers and the media, VDH was able to proactively address this public health emergency. These collaborative efforts resulted in high numbers of people vaccinated against the virus as well as reduced illness and death. During 2010, VDH critically evaluated its performance in responding to the H1N1 pandemic, and completed an After Action Report. Lessons learned from our response to the H1N1 pandemic have served to strengthen VDH, and improved our ability to protect public health.

In the year ahead, VDH will continue to strengthen collaboration between public health and private medicine; effectively and proactively communicate with our stakeholders and funders, and act as prudent and transparent public servants and stewards of taxpayer funds. We appreciate the honor of serving you to protect the well being of all Virginians.



Karen Remley, MD, MBA, FAAP
State Health Commissioner

Office of Community Health Services
“Ensuring the Health and Safety of Our Residents”

Local health districts have been hard at work promoting and protecting the health of individuals, families and communities. The health care community, local governments and community partners have tackled such issues as infant mortality and obesity, seeing great strides made in both areas. Districts have engaged in delivering a variety of health promotion programs focused on reducing risk behaviors by implementing classes such as smoking cessation, diet and exercise.

Districts continued to engage in assuring the provision of health care through community partnerships. Through the Supplemental Nutrition Program for Women, Infants and Children (WIC) program local health departments provided low income families with knowledge and resources to support healthy diets during pregnancy, breastfeeding and early childhood. Localities provided family planning services to increased numbers of women and men in need. A number of local health districts provided dental care to children eligible for the federal free school lunch program or enrolled in Medicaid. Several health districts received special funding to improve the oral health of pregnant women.

Everyone who lives in or visits Virginia is potentially served by the VDH’s restaurant and food safety programs, well and septic permitting, and other environmental health services. With overall increased growth and diversification concentrated in the fastest growing areas of the Commonwealth there has been an accompanying demand for inspection, enforcement and permitting in accordance with environmental health laws. In the past year, VDH received 16,273 onsite sewage system applications and 10,683 applications to build private wells. VDH also conducted 55,985 restaurant inspections. Interdepartmental coordination among local health districts, state and federal agencies has increased to better meet the needs of Virginia’s citizens.

Assessing the overall health status of Virginians, and delivering quality programs and services to those in need, is a critical mission of VDH, as well as all 35 local health districts and 119 local health departments across the Commonwealth. We remain committed to working together with community partners to address existing inequities in health outcomes and determinants within our diverse community.

Along with its vast array of public health responsibilities, early in 2009 districts were faced with the possibility of dealing with the prevention and control of an unusual strain of influenza. The public health system rapidly responded to this threat. Preventive health policies and plans were developed to address disease control and treatment. Of particular significance was the development of a plan to conduct school-located H1N1 influenza vaccination clinics that targeted school aged children. Public and private school and day care staff including nurses, teachers and teacher assistants joined forces with public health nurses, health department staff and volunteers to immunize hundreds of thousands of preschool and school age children. Health departments also collaborated with local health care providers, hospitals, colleges and universities to develop strategies and offer guidance on ways to decrease the spread of seasonal flu and the 2009 H1N1 flu. The collective efforts of working together with our community partners to address this significant health issue resulted in high numbers of persons vaccinated against the disease and lower morbidity and mortality. Over 800,000 individuals were administered the H1N1 influenza vaccine by public health department personnel.

Response to the H1N1 Influenza Pandemic

The H1N1 Influenza pandemic that began in April 2009 was a rapidly evolving public health emergency that fully engaged the time, effort and expertise of management and staff in the VDH Central Office and all local health districts for an extended period of time. Extensive advance planning resulted in VDH being well positioned to respond efficiently and effectively in order to protect public health.

Private Pharmaceutical Warehouse with VDH Antiviral Medication Cache

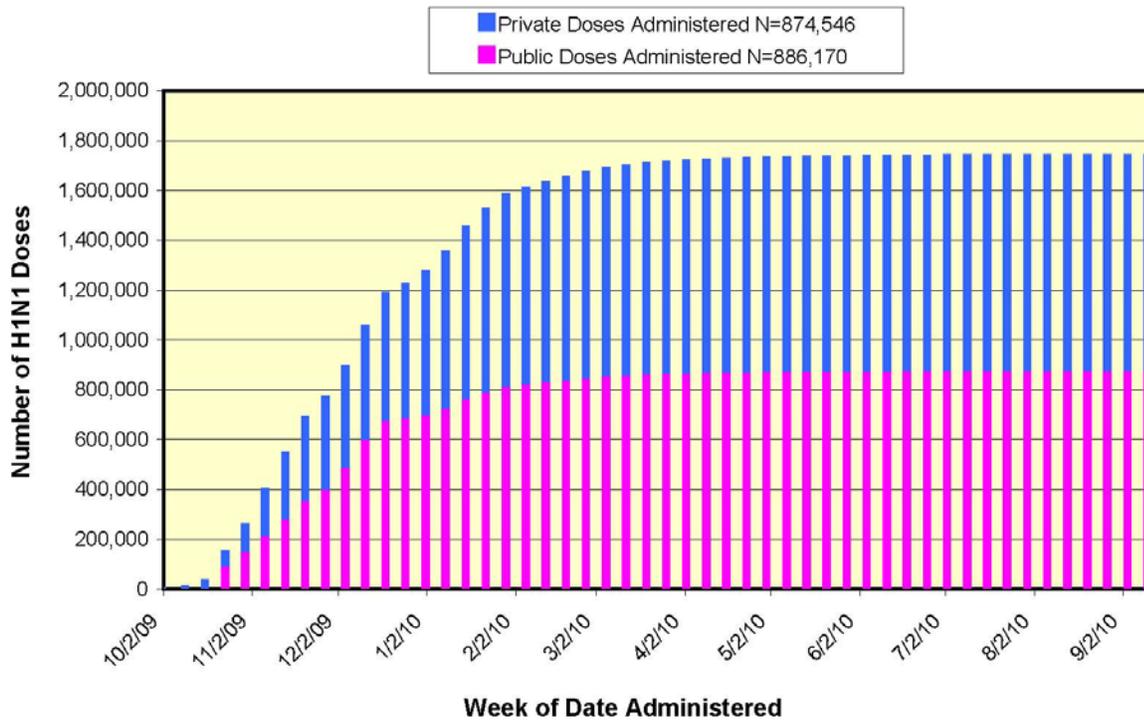


Specific Innovative/Creative/Collaborative Strategies/Methods. Well in advance of the H1N1 Pandemic VDH led the development of a comprehensive, multi agency pandemic influenza plan and conducted six pre-event pandemic influenza response exercises to test and improve those plans. A Pandemic Influenza Advisory Committee and clinician based advisory groups were established to provide counsel and to facilitate outreach and coordination with the health care community. VDH determined early in its Pandemic Influenza Planning that response efforts must extend well beyond the agency itself to the Governor's Office, his Cabinet, the General Assembly, and other state and local governmental counterparts. Coordination with federal partners included HHS, CDC, FDA, DHS, DOD, NIH, and OSHA. Private sector partnerships were invaluable and VDH coordinated planning and response with private clinicians statewide, all Virginia hospitals and other health care entities, over 250 pharmacies, a major national pharmaceutical storage and distribution partner, local, regional and national media outlets, and the private sector business community.

This extensive planning and collaboration facilitated implementation of the following: 1) A proactive disease surveillance, morbidity and mortality tracking effort was developed as was a statewide school-aged child vaccination program and expanded partnering with local private vaccinators statewide to extend the reach of the statewide vaccination program (see following graph). 2) A streamlined antiviral medication and personal protective equipment distribution and tracking system was implemented to cover all Virginians and, in particular, health care workers across the Commonwealth. 3) On the public sector side, a flexible public health workforce expansion program was developed to respond to increased requirements; the system also allowed for rapid contraction as requirements lessened. 4) In response to the need for a proactive information campaign, VDH coordinated multi-media efforts across the state and with our

neighbors in the National Capital Region to provide public service announcements and citizen readiness information. This was reinforced by a robust and responsive public health inquiry center and a direct, proactive Commissioner-to-Clinician information campaign.

H1N1 Doses Administered by Public and Private Sectors by Week Administered, Cumulative, Reported as of 10/13/2010, N=1,760,716



By any number of indicators, VDH’s response to this public health emergency was impressive. For example, during the H1N1 response campaign, 550 new wage employees and 1,250 contractors supported VDH. Over 3.9 million vaccine doses were distributed of which 1.7 million doses were administered. Virginia’s vaccination registry of vaccinators grew by 3,000. In addition, 1.1 million antiviral medication courses were secured and 35,000 courses were distributed. Personal protective equipment numbering 1.2 million items were distributed to over 750 providers. More than 80,000 calls and emails were fielded by the VDH H1N1 Inquiry Center.

VDH H1N1 Communication Campaign included over 10,000 television and 4,750 radio impressions in English and Spanish and 3.7 million internet impressions. VDH also provided messages on 185 bus and rail boards, in 260 movie theaters and in 15 college arenas and newspapers. Nineteen press conferences and 15 telephone media briefings and presentations were given to 92 organizations. A feature story on H1N1 was included in the national AARP magazine. Twenty eight “Dear Colleague” letters were sent to over 120,000 clinicians statewide keeping them apprised of H1N1 developments; this was complemented by over 400 focused communications to targeted Virginia communities.

VDH Emergency Preparedness and Response Programs “National Boy Scout Jamboree”

From July 26 through August 4, 2010, 46,000 Boy Scouts, their leaders and others assembled at Ft. A.P. Hill in Caroline County for the National Boy Scout Jamboree. In order to ensure that public health and safety was protected during this enormous gathering, an extensive planning process was initiated more than one year prior to the event.



VDH identified and engaged partners more than a year prior to the event, including the establishment of a Health and Medical Planning Team. VDH’s partners in this effort included the Boy Scouts of America (BSA), U.S. Department of Defense (DOD)/U.S. Northern Command, Virginia Department of Emergency Management, Virginia Department of Transportation, the Virginia State Police, area hospitals from Fredericksburg to Richmond, local Government and EMS services in Caroline County, private sector vendors providing food services to Jamboree attendees, media outlets covering the event, private clinicians, and area hotels and restaurants.

As part of the VDH’s planning for this event, a Heightened Vigilance Zone was identified surrounding Ft. AP Hill and along the I-95 corridor from Northern Virginia to Richmond to

provide systematic coordination within a specific target area. Both the Rappahannock Area Health District (RAHD) and VDH established unified command protocols to coordinate health and medical response efforts. A VDH liaison team was deployed to the Joint Multi-Agency Operations Center to enhance situational awareness along with food sanitation/safety teams to provide support to BSA and DOD enhancing food safety. An Epidemiology Surveillance and Investigation Team coordinated directly with medical staffs at all sub-camps and clinics on-base and with hospitals off-base.

The results of this extensive planning and preparedness effort were outstanding. The 2010 National Scout Jamboree, by all accounts, was among the safest and healthiest in recent memory. Outreach to and coordination with a wide-ranging stakeholder group was invaluable. Planning and preparations going into the event and lessons learned will serve the Commonwealth and its citizens during public health emergencies going forward.



Office of Environmental Health Services “Implementing Virginia’s Restaurant Smoking Ban”

On December 1, 2009, revisions to the Virginia Indoor Clean Air Act, which prohibits smoking in restaurants across the Commonwealth, became effective.

At the time the bill was making its way through the legislative process, approximately 67% of all full service and fast food restaurants were smoke free in the Commonwealth. Today, 93% of all full service and fast food restaurants are smoke-free.

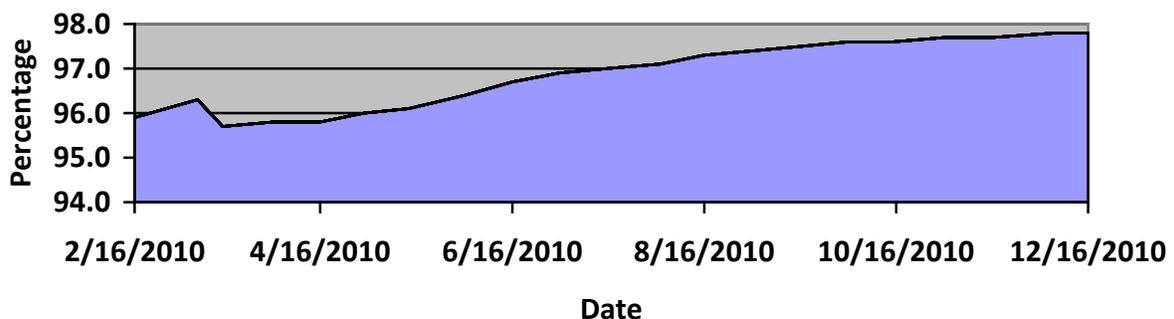
As the December 1st implementation date neared, VDH focused on educating the public and restaurant owners about the new law and its implementation. Full service and fast food restaurants that allowed smoking at the time of VDH’s last inspection received post cards reminding them of the new law and asking them to contact VDH’s Office of Environmental Health Services (OEHS) if they had any questions concerning the law.

After December 1, 2009, local health department inspections focused on those restaurants that were listed as having smoking areas as of their last inspection. OEHS, along with every local health district, has worked closely with the restaurant industry. Their smoking status was documented as was their compliance status. VDH initially started tracking the information in February 2010. On February 16, 2010, 95.9% of all full service and fast food restaurants were in compliance with the new law. Compliance means the restaurant is one of the following:

- Smoke free,
- Has a designated smoking area that is in compliance with the requirements of the law, or
- Is a private club that is exempt from the law.

Since February 2010 the compliance rate has steadily climbed as shown in the following chart. The current level of compliance is 97.8%

**Percentage of Full Service and Fast Food Restaurants
in Compliance with Virginia's Restaurant Smoking Ban**



During the past year, VDH staff has worked with many different organizations and state agencies to implement the revisions to the Virginia Indoor Clean Air Act. Some of these organizations had conflicting positions on the law. However, the number of restaurants in compliance with the law indicates VDH's success in working with these organizations to achieve the desired outcome of the new law.

Office of Drinking Water
“Providing Clean, Safe Drinking Water to Virginians”

Access to clean, safe drinking water is a pillar of public health protection. Drinking water in Virginia is currently provided to consumers through a combination of individual wells, private (non-public) water systems, public water systems (including private and municipal-owned), and a small number of other sources. Public water systems (PWSs) are the only ones that are required to meet minimum water quality standards under the Virginia Waterworks Regulations.

The VDH Office of Drinking Water (ODW) regulates over 1,100 community public water systems serving approximately 6.6 million residents. This accounts for approximately 84% of the population for the Commonwealth. Alternatively, private wells serve approximately 1.2 million residents.

ODW staff integrates engineering, technical, regulatory, and financial programs to support the public health mission. The program, working with other agencies and organizations, takes on the task of ensuring that all Virginians have access to affordable, safe drinking water.

Virginia’s drinking water infrastructure faces aging systems, water shortage and quality issues, and funding shortfalls. Nationally, estimates for infrastructure repair are \$6.1 billion. VDH, through the Drinking Water State Revolving Fund (DWSRF), coordinates funding for improvements to Virginia’s infrastructure with the Department of Environmental Quality, the Department of Housing and Community Development, USDA Rural Development, Southeast Rural Community Assistance Program, Virginia Resources Authority, the Virginia Tobacco Commission, the Appalachian Regional Commission, and the Coalfield Water Development Fund.

The DWSRF has provided over \$310 million in financial support to public water systems across the Commonwealth to address their community needs. These projects have allowed many communities to address their public health goals as they strive to provide clean, safe drinking water. A significant portion of this support has gone to the far southwest portion of Virginia. Over \$210 million has been used to enhance the quality of life for many of the residents in this part of the state. Many of these systems have extended service to provide public water to individuals with failed private wells, and to bring a stable source of drinking water to many small rural towns.

A safe drinking water situation involving the City of Harrisonburg provides a good recent example of how ODW works effectively and collaboratively with public and private sector partners in order to protect public health.

The City of Harrisonburg waterworks serves approximately 44,500 Virginians. The Safe Drinking Water Act (SDWA) required all drinking water storage reservoirs containing finished (treated) water for human consumption to be covered by April 2009 to eliminate the potential for water contamination from animals or manmade sources. To comply with the SDWA, the City of Harrisonburg took its existing 16 million gallon reservoir out of service in April 2008 and began design of a replacement tank.

The Tower Street Water Tank Project consisted of the construction of an 8 million gallon concrete ground storage tank, 480 feet of water main, and other related upgrades to the existing system. The new tank replaced the existing ground level reservoirs located at Tower Street in the City of Harrisonburg. The new water storage tank is located within the existing water storage reservoir.

ODW contributed funding through The American Recovery and Reinvestment Act of 2009 (ARRA). The project was additionally funded by an EPA Grant, a Commonwealth of Virginia Grant, and the City of Harrisonburg.

Besides achieving compliance under the SDWA, this project has many “green project” benefits. The new tank is designed to have zero leakage and minimal evaporation as it is a completely enclosed concrete tank. This represents a reduction of 300,000 gallons per day in water lost due to evaporation or leakage. At a current treatment cost of \$0.68/1,000 gallons, this reduction in loss represents a treatment savings of \$74,000 per year. By providing a completely enclosed tank, the City of Harrisonburg was able to eliminate the surface aerator that had been used to circulate water in the old reservoir. This represents an average savings of \$7,814 per year in electrical costs. Other efficiencies are expected to save approximately \$12,000 per year. The total expected “green” savings associated with the new storage tank may be more than \$100,000 per year.





**CITY OF HARRISONBURG
DEPARTMENT OF PUBLIC UTILITIES**

Project: 8.0 Million Gallon Water Tank
Tower Street Reservoirs

 Contractor: The Crom Corporation
Contractor Foreman: Rod Boyd

City Inspector: Joe McLawhorn
Project Information Contact: 540.434.9959

\$2,272,000 Project Funding Provided by EPA Grant, Commonwealth
of Virginia Grant, and The American Recovery
and Reinvestment Act of 2009 and City Funds

Office of Family Health Services
“Text4Baby – the Virginia Experience”

Infant mortality is a significant public health issue. The prevention of infant mortality is one of VDH’s leading priorities. In April 2009, infant mortality prevention efforts in Virginia took a significant step forward when VDH and the Healthy Mothers Healthy Babies Coalition (HMHB) partnered to implement the national Text4Baby project. Text4Baby is a free mobile phone information service providing timely health information to pregnant women and new mothers during pregnancy and through a baby’s first year. Women who sign up for the service by texting BABY to 511411 (or BEBE for Spanish) receive three free SMS text messages each week timed to their due date or baby’s date of birth. These messages focus on a variety of topics critical to maternal and child health, including birth defects prevention, immunization, nutrition, seasonal flu vaccination, mental health, oral health and safe sleep. [Text4Baby](#) messages also connect women to prenatal and infant care services and other resources.

The State Health Commissioner designated key staff in the Maternal and Child Health Program to partner with the HMHB to bring this project into Virginia. During the summer of 2009, VDH took the lead in establishing the Virginia Text4Baby implementation team including key stakeholders and members of the Health Commissioner’s Infant Mortality Workgroup. Representatives from the Department of Medical Assistance Services, Virginia Section of the American College of Obstetrics and Gynecology, Virginia Chapter of the American Academy of Pediatrics, Virginia Section/AWHONN, the Virginia WIC Program, Richmond City Healthy Start, Virginia Healthy Start Initiative/Loving Steps, Inova Health System, and The United Way were among those who served on the team.

Each organization committed to disseminate materials to their clients, promote the Text4Baby launch to their constituents, and encourage service use among their own organization’s employees with a goal that women would receive contact about Text4Baby from multiple sources. The professional organizations sent emails and planned to include articles in newsletters to their members. The Virginia WIC Program, the two Virginia Healthy Start projects, and the Inova Health System distributed the promotional materials directly to clients. Because over 40 percent of all Virginia births are covered by Medicaid, having staff from the Department of Medical Assistance Services was critical to success in reaching the targeted population. One of the first ideas was to revise the new enrollee letter for pregnant women to include information about the Text4Baby service and enrollment instructions. Using this letter has promoted early contact with the service since the letter started in February. The Medicaid Managed Care Organizations were also included in discussions and developed plans to distribute promotional materials through their existing systems of communicating with staff and pregnant women.

Prior to the national launch, the implementation team also completed an assessment of the operation of the service in November and December. Clients were recruited in one private practice site and the two Healthy Start sites to enroll in the service and complete a survey after four-six weeks regarding their experiences. A representative from the national evaluation team provided consultation and analysis of the surveys. Findings showed that the strengths of the service were that the messages were clear, timely and helpful. All of the respondents would

recommend the service to a friend and a few noted that the messages helped them do something, e.g. “eat healthier.” A major challenge was identified as a result of the survey that there were frequent interruptions in cell phone service for many of the clients, particularly those in the public supported programs.

On February 11, 2010, Dr. Bill Hazel, Secretary of Health and Human Resources, announced Virginia’s launch of Text4Baby and highlighted that Virginia had the distinction of being the only state to pilot test the service and the first state to use a statewide approach. Following the launch, multiple additional organizations and potential partners have responded and have been included in the implementation team.

HMHB, with financial support from a CareFirst grant, hired a partner relations manager to work closely with Virginia to promote this service statewide to both professionals and to potential users. All local health districts designated a contact to work with this partner relations manager to determine and obtain the most appropriate promotional materials for health department clients. This manager in collaboration with VDH staff assisted all Virginia outreach partners to obtain the promotional materials developed for this campaign, continue the evaluation of the service, coordinate with the national evaluation, and to participate in other national launch events. Subcommittees from the expanded implementation team and all Virginia partners were formed to further address the promotion and evaluation of the project which is ongoing. This team will advise the HMHB staff and assist to evaluate what promotional materials were most effective.

Office of Minority Health and Health Equity “Promoting Health in all Policies”

In June 2009, the VDH Office of Minority Health and Health Equity (OMHHE) was awarded a Healthy People 2020 Evaluation Grant (HP2020) by the U.S. Department of Health and Human Services. This grant is providing the means to improve health in the Commonwealth by building the public health knowledge base and improving the awareness of the HP2020 framework among key decision makers in state government and introducing ways to incorporate this framework within programs, policies, guidelines, and laws.

OMHHE is working with the Office of the Commissioner, other VDH offices, and with external stakeholders to showcase partnerships and provide information for a better understanding of ways to address the HP2020 overarching goals which are to:

- Achieve health equity, eliminate disparities, and improve health for all groups;
- Eliminate preventable disease, disability, injury and premature death;
- Create social and physical environments that promote good health for all; and
- Promote healthy development and healthy behaviors across every stage of life.



In order to support these goals, the State Health Commissioner met with key governmental officials at both the state and local levels. Through a series of educational seminars, the Commissioner has shared information concerning the VDH mission; the influence that non-public health agencies have in achieving HP2020 goals; and VDH’s interest in public/private collaboration. Presentations have been given to elected officials and senior level staff in the Executive and Legislative branches of state government.



In order to demonstrate the influence of public policy on health and health equity, OMHHE has focused attention on the Virginia Performs Scorecard (see diagram). While many of the performance measures on the scorecard are determined by policy and programmatic decisions outside of VDH's direct influence, they still have an influence on the public's health. Where Virginians live, work, play, and learn is where their opportunities to be healthy begin. And in order for such policies to have the greatest influence on health and health equity, collaboration across agencies is essential.

A great example of interagency collaboration to promote health and health equity is the Safe Routes to School program, which Dr. Remley highlights in her presentations. This initiative of the U.S. Department of Transportation funds the Virginia Department of Transportation (VDOT) to support localities in creating safe walking and bicycling routes for children to get to school. VDOT is collaborating with VDH, the Virginia Foundation for Healthy Youth and the Virginia Department of Education to implement this program, which has the potential to address the growing epidemic of obesity among our children and to increase family and community involvement with their local schools.

A web-based training curriculum is currently in development to provide more detailed information to target audiences regarding the link between health and health equity and the programmatic and policy decisions of other agencies within state government, local government, and among elected officials. It will provide best practices around the country for policy and program development and interagency collaboration. This curriculum is designed specifically for staff within these target groups who implement programs and develop policy options for their leadership.

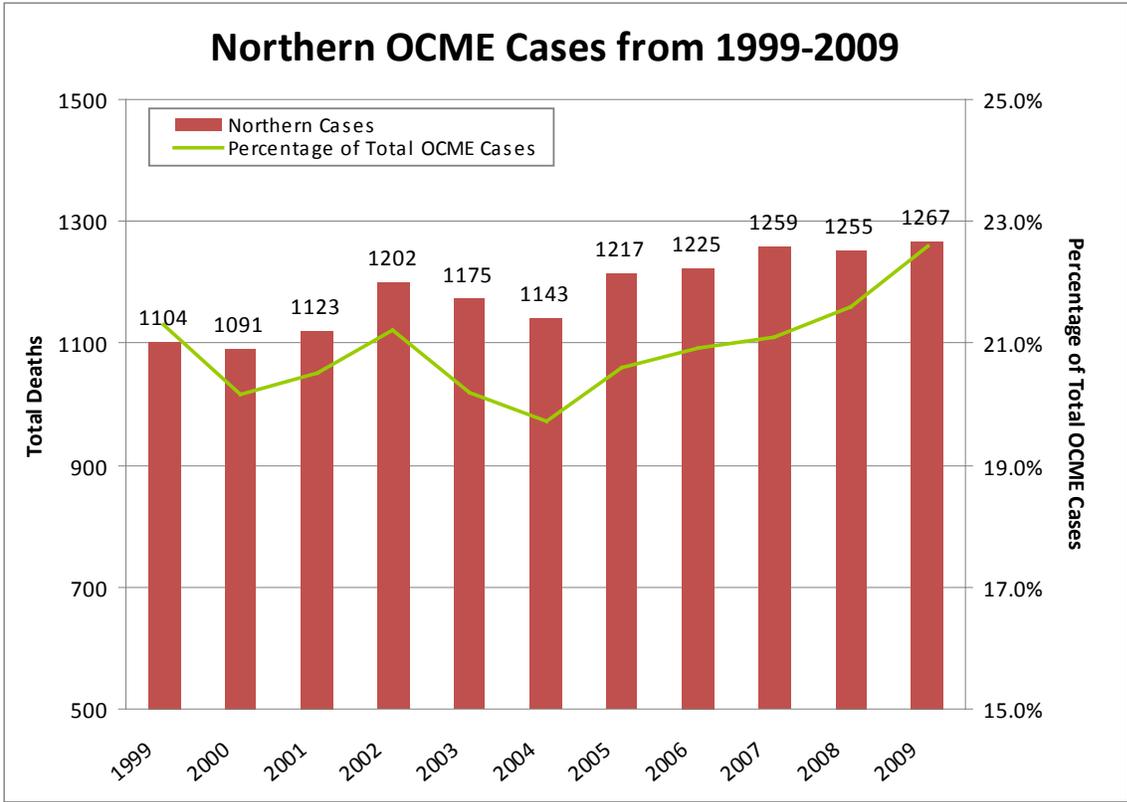
Office of the Chief Medical Examiner
“A Public/Private Partnership to Develop New Infrastructure for Medico-Legal Death
Investigations in Northern Virginia”

Prior to 2009, the Office of the Chief Medical Examiner’s (OCME) Northern District Office was housed in an antiquated building along with the Department of Forensic Sciences (DFS) Northern Region Laboratory. Flooring in the OCME autopsy suite had deteriorated and rooms had to be used for multiple purposes such as a lunch room/conference room/part-time office. The X-ray and decomposed autopsy suites were both used for storage, making it difficult to take x-rays and perform autopsies on decomposed bodies. In addition, the autopsy technicians often had little or no heat in their office off the garage. The body storage areas were only large enough to hold 50 bodies with no place for overflow storage in case of a mass fatality event. There was no space for a building security office to allow staff to stay overnight, compromising 24 hour body pick-up and drop off. Instead, bodies were dropped off during non-business hours at a small outside cooler that had to be accessed with the assistance of the State Police in the building next door. There were no security cameras and parking for both staff and visitors was inadequate. The location of the building between a drainage area and a natural gas pipeline prohibited adding on to the existing structure.

Both the OCME and DFS needed a larger, state of the art facility to keep up with growing agency demands. Initial discussions about a new building began in the early 1990s. On January 6, 2006, the Public/Private Partnership began with Sheer Partners submitting a proposal to Commonwealth of Virginia’s Public-Private Partnership Program (PPEA).

The new facility, to replace the current 30,000-square foot Northern Virginia lab in Fairfax, was approved by the Commonwealth in response to advances in forensic technology; significant regional population growth; and certain US Department of Homeland Security directives related to terrorist activities. The site chosen for the new DFS/OCME laboratory facility was Innovation at Prince William Technology Park, a 1,500 acre business and technology park that is home to leading biotechnology, life science, and supporting firms. The ground breaking for the \$60 million facility occurred in May 2007. OCME moved into the new facility in May 2009.

With the new building and equipment, the Northern District OCME has sufficient office, training, meeting, and laboratory space with state of the art poured, non-porous floors in the autopsy suite, a skylight to provide maximum natural light for autopsy examination and evidence collection and room to expand to meet the increasing case load. There are ancillary rooms in the morgue area for tissue storage, evidence storage, trace evidence processing, histology specimen processing, decomposed autopsy dissection, and additional body storage for both routine cases as well as in case of a mass fatality event. With security cameras and a room for overnight personnel, the office is now able to safely operate 24/7 for body drop-off and pick-up as well as for tissue recovery by organ procurement organizations with family permission for donation. The new OCME facility also contains a Biosafety Level 3 autopsy suite to allow forensic pathologists to examine infectious remains while safely containing the bio-contaminants. By accurately and safely determining the cause and manner of death in this new facility, the OCME is able to further both our medicolegal and public health missions.



Old Manassas Facility on Braddock Road in Fairfax



Aerial view of the new facility at 10850 Pyramid Place, Suite 121 in Manassas



Front of the new Manassas facility

Office of Licensure and Certification
“Addressing the Issue of Hospital Patient Boarding”

A long standing health care challenge in Virginia and across the country has been that many patients have to wait a significant amount of time in hospital emergency departments after they have been admitted to the hospital before they receive an inpatient hospital bed. These patients had been seen, treated, and were admitted to the hospital for care, but a bed was not immediately available. This has been an ongoing situation in hospitals throughout the country.

The Virginia College of Emergency Physicians, Virginia Hospital and Healthcare Association, and the VDH Office of Licensure and Certification came together under VDH leadership to address this situation, paying particular attention to patient safety and quality of care issues and concerns.

As a part of the review process, a survey was sent to hospitals and emergency physicians to document the extent of the problem in Virginia. The survey received a 60 percent response rate. Based on the survey responses, guidelines were developed collaboratively for use by hospitals and the physicians practicing in their emergency departments. These guidelines represent an important first step in improving patient care and satisfaction. They will also help with emergency preparedness and training.

The hospital boarding of admitted emergency patients occurs in many other states. Several states have resorted to legislative mandates to address this matter. In Virginia, due to the combined efforts of the stakeholders, the problem was addressed without the need for state legislation. This collaborative partnership to address a long-standing problem in emergency departments is an example of a successful public/private collaborative effort.

These guidelines were announced by the State Health Commissioner at a statewide news conference on August 19, 2010.

Office of Information Management and Division of Vital Records
“Virginia Vital Events and Screenings Tracking System”

The Office of Information Management (OIM), in partnership with the Division of Vital Records (DVR) created the Virginia Vital Events and Screenings Tracking System (VVESTS). This is a suite of products consisting of the Electronic Birth Certificate (EBC) and the Virginia Infants Screening and Infants Tracking System (VISITS) in one tightly integrated system. In 2009-2010, all birthing facilities in Virginia were introduced to VVESTS which is used by hospitals to record birth information. Additionally, this web-based system is used by hospitals to report mandated hearing screenings and birth defects registry data in a paperless environment saving thousands of dollars. Further savings were realized by significantly reducing the data entry efforts for the providers, DVR and the Division of Child and Adolescent Health (DCAH). DVR and DCAH collaborated to improve functionality, data quality, reporting capabilities and reduce information technology (IT) expenses. VVESTS is an example of an innovation that reduces costs while significantly improving data quality, functionality and the ability to analyze data over time and across programs. This innovative and collaborative approach has attracted the attention of other states that are looking to VVESTS as a benchmark.

Problems with the former birth registration and VISITS systems included low quality data; an improper maintenance cycle; improper integration of DVR modules; and a client-server setup requiring a dial-up modem for connection. In order to overcome these shortcomings and make the reporting of vital events, hearing screenings and registry data more efficient and accurate, the VVESTS application was developed and implemented.

The success of this project clearly highlighted the innovative capabilities of OIM, DVR, and DCAH staff conceiving and developing VVESTS and leveraging some external funding sources to support this endeavor. VVESTS has been lauded for serving as a central repository for the demographic data of approximately 7.5 million birth records. Instead of having to re-enter demographic data, users can now simply add vital events, hearing screening and birth defects registry data to an existing record. Today such data are being used for birth registration, hearing screening follow-up, and birth defects surveillance and evaluation purposes thereby reducing the duplication of effort by DVR and DCAH.

VVESTS projects a saving of nearly \$600,000.00 in resource and infrastructural costs over a period of 3 years. VVESTS has assisted DVR and DCAH in collecting and analyzing timely and high-quality public health data which have been used to improve public health services.

VVESTS has improved the efficiency and effectiveness of health professionals by improving the way in which vital events, hearing screening and birth defects registry data are captured and reported. The birth registrars now save 5 minutes per birth registration thereby saving the birthing facilities an average of 8,935 man hours per year. This has improved the business processes by decreasing the redundancy in data entry by approximately 88 percent. Due to system integration, the hospitals can now combine business functions. This promotes a more efficient use of human resources and a reduction in operating cost. All data users are benefitting from this system since they are receiving higher quality data in a timelier manner. VDH is now

transmitting faster and better quality data to such agencies as Social Security Administration, Department of Social Services, National Center of Health statistics, and Centers for Disease Control and Prevention.

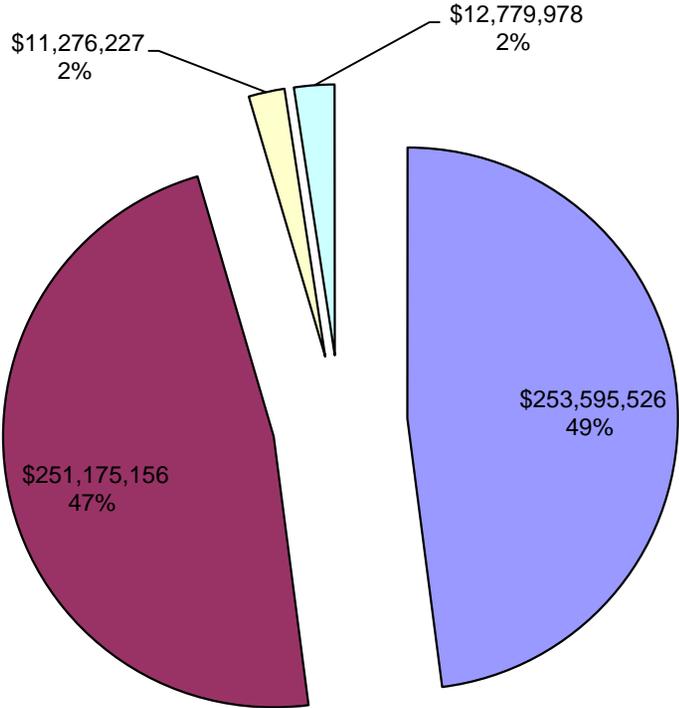
The primary purpose of this implementation was to improve customer service by enhancing the timeliness and quality of vital events, hearing screening, and birth defects registry data. Individuals can get a copy of vital records much quicker than before VVESTS was implemented. Follow-up staff can better assist families to prevent developmental delay in infants who have hearing loss by helping to ensure that newborns are screened prior to hospital discharge or before 1 month of age, infants who do not pass their hearing screening have a diagnosis by 3 months of age, and infants with a confirmed hearing loss receive early intervention by 6 months of age. Policymakers, researchers, and other stakeholders can receive more accurate, complete, and timely birth defect data for planning, prevention, and intervention purposes.

Secondary to improving customer service was the goal of improving the efficiency of VDH business processes. Prior to VVESTS, hospitals entered all demographic information multiple times for birth certificates, hearing screenings and birth defect registry data resulting in a significant duplication of effort. In VVESTS, demographic data entry is performed only once and hearing screenings, birth defect data and other vital events are added to the existing record, which greatly improves the data entry efficiencies.

Lastly, all data users benefit from timely, high-quality data. For example, data from DVR systems are used throughout VDH to report statistical data, by other state agencies to reduce identity fraud and abuse, and by the Department of Social Services to verify and validate benefits. Policymakers can use VVESTS data to develop public health policies. National and state organizations can use the data to apply for applicable grant dollars and gauge success of their programs. The federal government can use vital record, hearing screening, and birth defect data to develop leading health indicators.

The project thus far has been highly successful, and we are looking forward to adding the Electronic Death Registry in the coming years. Project planning for this implementation is in process.

Fiscal Year 2010 Expenditures by Category
Total \$528,826,888



Final Fiscal Year 2010 Appropriation (Chapter 872) by Fund
Total Appropriation - \$567,732,613

