

Health Department



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Mission

Protect, promote and improve health and quality of life for all in the community.

AGENCY DASHBOARD			
Key Data	FY 2015	FY 2016	FY 2017
1. Number of screenings, investigations, and treatment for selected communicable diseases	32,485	30,949	29,445
2. Number of vaccines administered to children	34,417	31,559	37,659
3. Number of primary care visits provided through the Community Health Care Network	48,100	37,365	30,925
4. Number of student visits to school health rooms	793,252	768,676	807,229
5. Number of Environmental Health community-protection activities: inspections, permits, and service requests	29,543	29,885	31,423
6. Number of community members served through outreach and health promotion activities	42,477	86,882	40,831

Focus

The Fairfax County Health Department (FCHD) has five core functions: preventing epidemics and the spread of disease; protecting the public against environmental hazards; promoting and encouraging healthy behaviors; assuring the quality and accessibility of health services; and responding to disasters and assisting communities in recovery. These functions are the community-facing elements of the 10 Essential Public Health Services (EPHS), which define public health and serve as the framework for quality and performance improvement initiatives nationwide. As part of a realignment of resources within the Human Services system based on work done as part of Phase 2 of the FY 2016 Lines of Business process, effective July 1, 2018, positions have been transferred from the Department of Administration for Human Services (DAHS) to FCHD to more closely align administrative functions to ensure compliance with regulatory requirements and service needs.



10 Essential Public Health Services

In FY 2017, the FCHD completed the third year of implementation of its Strategic Plan for 2014-2019, which outlines goals and objectives to strengthen the department's capacity to deliver the 10 EPHS. The department's strategic plan identifies the challenge of securing and retaining resources to address ongoing activities that are critical to the community, while seizing opportunities to leverage community

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assets and other resources that enable the department to reorient towards population-based programs focusing on disease prevention and health promotion. While progress has been made in developing internal resources, building a strong public health infrastructure remains central to effective delivery of the 10 EPHS and to adequately address the public health challenges of today and the future. This means investing in the workforce so that employees are prepared for the changing role of public health; continuing to build strategic partnerships to address the health needs of the community and the root causes of health inequities; communicating effectively with colleagues, partners, and customers; monitoring and evaluating community health data to understand the health status of the community; and leveraging technology to increase efficiency in service delivery. Enhancing capacity in these areas will improve the ability of the FCHD to anticipate emerging public health issues and to proactively address them.

The 10 EPHS also serve as the framework for nationally-adopted performance and quality improvement (QI) initiatives, such as local public health department accreditation. In May 2016, the FCHD was accredited by the Public Health Accreditation Board (PHAB), having met national standards for high quality public health services, leadership and accountability. The department received the full accreditation for five years and is now one of 189 health departments having achieved accreditation nationwide. Engaging in the accreditation process and meeting accreditation standards provided opportunities for improvement and reinforcement of the department's strengths. PHAB recognized the FCHD for its community partnerships, administrative and management infrastructure, and performance management system. In addition, PHAB highlighted the department's well-designed and succinct quality improvement plan which supports and maintains a quality culture. The department is working to better align and integrate the components of its performance management system. Engaging in these performance improvement activities lays the foundation for improved protection, promotion, and preservation of community health.

The Health Department supports the following County Vision Elements:



Maintaining Safe and Caring Communities



Creating a Culture of Engagement



Connecting People and Places



Maintaining Healthy Economies



Building Livable Spaces



Practicing Environmental Stewardship



Exercising Corporate Stewardship

Revenue Sources

The FCHD operates as a locally administered health department with support from the state based on a formula set by the General Assembly. For FY 2019, it is anticipated that the state will contribute a total of \$9,244,567 to support FCHD services. Additional financial support is provided through contracts with the Cities of Fairfax and Falls Church. Other revenue is generated from fees for licensure registration, permits, and commercial and residential plan review for environmental and health-related services. Fees are also collected for death certificates, X-rays, speech and hearing services, pregnancy testing, laboratory tests, pharmacy services, physical therapy, primary care services, immunizations, Sexually Transmitted Infection (STI) clinical services and Adult Day Health Care participation. Eligible health-related services are billed to Medicare, Medicaid, and other third party payers.

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Preventing Epidemics and the Spread of Disease

Communicable disease surveillance, prevention and control are core public health activities that are provided through many services within the Health Department by a diverse team of providers (physicians, nurses, laboratory technologists, epidemiologists, community health specialists, emergency planners and others). Several methods are used to control the spread of communicable disease. These methods include the use of social distancing to limit interaction between individuals with a communicable disease and those who are well; determining possible exposures; testing and/or treating those exposed; preventing further spread through education and instituting infection control measures.

Emerging infectious diseases pose a threat to the health of the public. In FY 2017 FCHD responded to Zika virus through coordination, education, testing, and guidance to healthcare providers and the community. FCHD provided updates on prevention of Zika virus, testing guidelines, lab interpretation, and the US Zika Pregnancy Registry (US ZPR) to 1,168 clinicians through in-person presentations, webinars, and health advisories. In Virginia, local health departments were asked to facilitate requests for Zika virus testing through the state and federal public health laboratories. In FY 2017 1,285 requests for Zika testing were submitted by healthcare providers to FCHD for review, approval, coordination and follow-up. In total, there were 24 individuals monitored throughout their pregnancy for Zika-related birth defects.

FCHD remains actively involved in treating and providing public health support to patients with active tuberculosis (TB). In FY 2017, FCHD provided treatment for 67 confirmed cases of tuberculosis. As part of investigating each of these cases, FCHD performed contact tracing to identify those who may have been exposed; provided testing to identify contacts with latent infection; offered treatment to prevent TB disease; and provided laboratory and x-ray diagnostic services to 365 individuals suspected of having TB disease. These public health actions are crucial to preventing the spread of TB.

FCHD also aligns with national goals to end TB, which include not only treatment of TB, but early diagnosis and prevention. Therefore, efforts to enhance treatment of latent TB infection were increased in FY 2017, including promoting use of a shorter treatment regimen, and client education and support for completing treatment. In FY 2018 FCHD was selected by VDH to take the lead in local and regional efforts to address TB elimination while increasing community capacity. FCHD worked with Virginia Department of Health representatives, Northern Virginia Health Districts, local TB program managers, the FCHD Multicultural Advisory Council, faith leaders and other key stakeholders to form a regional TB Community Advisory Council. The Council is working to identify and implement sustainable solutions to advance TB elimination goals and build community capacity in Northern Virginia.

The Fairfax County Health Department Laboratory (FCHDL) offers a wide range of testing services in support of Health Department programs such as TB, Sexually Transmitted Infection, Rabies, and the Disease Carrying Insects Program, as well as mandated environmental tests and substance abuse tests for other County agencies. Laboratory testing is essential to disease surveillance, the diagnosis of new and emerging infectious diseases, the assessment of hazards in the environment, and monitoring of drinking water safety. In collaboration with the Health Department's Communicable Disease Epidemiology Unit, FCHDL performs analysis of human samples for bacteria, viruses, parasites, and other infectious agents to assist in the identification of disease outbreaks and to plan effective public health interventions. FCHDL utilizes the latest technology and instrumentation to provide state-of-the-art communicable disease testing services. Molecular test methods have become increasingly popular due to their increased sensitivity and faster results compared with traditional test methods, allowing for faster diagnosis and access to care for the patient. In FY 2017, FCHDL acquired a new state of the art molecular testing platform, PANTHER, allowing the FCHDL to expand its current test menu. Utilization of these

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molecular methods has improved the ability of the Health Department to identify and reduce the transmission of disease in the community, as well as provide opportunities for expansion of services in the future.

Protecting the Public against Environmental Hazards

A critical aspect of protecting the health of the public is education, coupled with enforcement of laws and regulations that mitigate or eliminate environmental hazards. Environmental Health Services (EHS) promotes compliance in the regulated community through routine inspections, outreach activities, and education on healthy practices. EHS also conducts complaint investigations to identify and correct potentially risky situations or behaviors that can adversely affect public health.

The Food and Drug Administration (FDA) in cooperation with both the National Association of County and City Health Officials (NACCHO) and the Association of Food and Drug Officials (AFDO), offer grant funding to support local health departments in developing, implementing, and improving the infrastructure necessary to support conformance with FDA's Voluntary National Retail Food Regulatory Program Standards. The FCHD's regulatory food program has achieved and maintained conformance with seven of the nine standards and is recognized as a model for applying these standards. In early FY 2017, NACCHO selected EHS for a fifth consecutive year to mentor other local health departments enrolled in the program standards. In late FY 2017, AFDO awarded a grant to EHS to support FCHD standards-related activities.

In early FY 2016, the FDA awarded the FCHD grant funding for a three-year EHS project to achieve conformance with the Retail Program Standards and advance efforts for a nationally integrated food safety system. FY 2016 project deliverables included completion of a third foodborne illness risk factor survey, a report on trends of the occurrence of risk factors in County food establishments from 2006 to 2016, and development of a basic food handler training program targeting food employees other than managers. In late FY 2017, EHS introduced and began piloting the STAMP (Safety Through Actively Managing Practices) program. STAMP is a voluntary program in which food establishment owners and operators may enroll. The program focuses on the practice of Active Managerial Control (AMC) for the reduction of foodborne illness risk factors in food establishments. Participants in STAMP partner with FCHD to implement and model best practices that help to maintain a safe food environment for their customers. The Fairfax County Public Schools, Office for Food and Nutrition Services became a pilot participant in FY 2018. STAMP participants will receive a certificate of achievement and recognition on the FCHD website. Incentive programs like STAMP recognize the achievements of the food industry and complement intervention strategies implemented by the FCHD to improve compliance with the food regulations.

Vector-borne diseases such as West Nile virus (WNV), Zika, and Lyme are perennial public health concerns that require continuous surveillance of mosquitoes and ticks to direct control efforts. The emergence of Zika during FY 2015 stressed the need for Health Department staff to be prepared to mount a public health response to the threat of mosquito-borne diseases. The Health Department has increased the number of both merit and non-merit staff that are licensed by the Virginia Department of Agricultural and Consumer Services (VDACS) as pesticide applicators and/or registered technicians from five in FY 2016 to 22 in FY 2017. From FY 2003 through FY 2017, the Health Department utilized a contractor to perform larval mosquito surveillance control activities. However, the contract was not renewed in FY 2018, and this is the first year that Health Department staff are conducting all mosquito surveillance and targeted control activities without the assistance of a contractor. The planning and execution of the stormwater inspection and larviciding program has increased communication and understanding between the Department of Public Works and Environmental Services Stormwater Management group

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and the Disease Carrying Insects Program (DCIP). DCIP activities are supported through a special tax district and funded through Fund 40080, Integrated Pest Management Program (Volume 2).

DCIP outreach activities include attending events, providing presentations to the public, and developing/updating outreach information for distribution. In addition to their annual calendar, the Health Department developed and distributed several new or updated outreach materials in FY 2016 and FY 2017 to inform the public about WNV and Zika. DCIP staff also created the Health Department's first-ever rap video, "Zika 101," which received more than 10,000 views on YouTube during FY 2017 and garnered local and national print and radio media attention.

Laboratory testing data is fundamental to the early identification and remediation of environmental health hazards within the community. In support of the Environmental Health Division, the FCHD laboratory offers a wide range of environmental testing services. The lab provides routine molecular diagnostics of mosquito samples for WNV and Zika, and tests deer ticks for *Borrelia burgdorferi*, the causative agent of Lyme disease. It also maintains certification as a Certified Drinking Water Laboratory providing chemical, heavy metal, and bacteriological testing of private and public water supplies to assure the quality and safety of drinking water supplies. The laboratory performs bacterial and chemical monitoring and surveillance testing on County streams to assist with determining the overall change and trends in the condition of County streams and to protect the health of the public. Due to the high mortality rate of rabies, FCHD Laboratory provides 24-hour turnaround time for rabies testing in animals to Fairfax County and surrounding jurisdictions to prevent individuals from receiving unnecessary rabies post-exposure shots. The laboratory continues to enhance and expand its laboratory capabilities to improve disease surveillance to provide timely identification and response to established and emerging pathogens and environmental hazards of public health interest.

Promoting and Encouraging Healthy Behaviors

Community-wide outreach to inform and educate residents about health issues can empower individuals to adopt healthy behaviors and take actions that are conducive to good health. In FY 2017 the FCHD diversified its media health promotion efforts from movie theater advertisements aimed at a general audience to more targeted cable and online advertising as part of a yearlong campaign on youth suicide prevention. The use of digital advertising has proven to be a cost-effective means of reaching our targeted audience across multiple screens and platforms. This innovative approach to invest in the delivery of public health messages through marketing research resulted in 4,368,802 impressions directed to the targeted demographic of young adults and parents of adolescents. In addition, the FCHD continues to engage ethnic, minority, and vulnerable populations on a wide range of issues through community partnerships and other population-based, culturally appropriate methods. The Multicultural Advisory Council and the Northern Virginia Clergy Council for the Prevention of HIV/AIDS are critical partners for building community capacity to deliver and reinforce key public health messages within targeted communities.

In FY 2017, the School Health Program continued quality improvement initiatives, in keeping with the recommendations of the *School Health Ten Year Strategic Plan*. Fairfax County Public Schools (FCPS) has an increasing number of students with complex health conditions that require specific health care plans to attend school. In FY 2017, there were 66,887 students with health plans, which is a 14 percent increase in comparison to the 58,800 students with health plans in FY 2016. Based on feedback received from both FCHD and FCPS staff, care plan process improvements were implemented in FY 2017, including the introduction of Action Plans which contain specific concrete action steps for unlicensed personnel who are responsible for supporting students' health related needs. Over 26,000 students have been identified as having an allergy and nearly 4,000 have an allergy that may cause an anaphylaxis response upon

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exposure. Due to the high number of students with allergies, the introduction of the Anaphylaxis Action Plan became a high priority. The full transition from health care plans to Action Plans over this next school year is expected to improve the efficiency and effectiveness of support provided to students with health conditions by Public Health Nurses (PHN). An early evaluation of the use of Action Plans in March 2016 indicated that both school staff, parents and PHNs supported the new streamlined format. Beginning in FY 2018, the Action Plan format includes support of more than 1,300 students with seizure disorders and the more than 400 students with Type 1 diabetes.

The Centers for Disease Control and Prevention (CDC) reports that the health status of students is strongly linked to their academic success and recommends coordinated school health programs to improve educational performance and the wellbeing of children. In line with this construct, PHNs, in partnership with FCPS, developed new resources for use in health promotion in the elementary, middle and high school setting. In FY 2017, nearly 35,000 students, parents and staff participated in health education sessions conducted by PHNs on topics such as healthy food choices, hand washing, dental hygiene, and smoking cessation. In FY 2018, the School Health program continued to explore ways to promote medication safety in the home and the awareness of prescription drug abuse and misuse in adolescents using the *Smart Moves Smart Choices* program supported by the Virginia Department of Health. Education and outreach to the school community continues to increase, with a focus on supporting initiatives in Title 1 schools in partnership with the Department of Neighborhood and Community Services (NCS), the Department of Family Services (DFS), and community groups. The School Health program is continuing to expand into the middle and high schools, utilizing high school focus groups to identify health topics that resonate with teens. In addition, the FCHD provided hands on training for school staff on diabetes, anaphylaxis, seizures, asthma and other health conditions to increase the understanding and support of students with these conditions. Online learning modules developed by the FCHD in partnership with FCPS resulted in improved access to trainings by school staff and provided nearly 29,000 school staff access to health information about these conditions. These initiatives, supported by best practice research, will continue into FY 2019 and are in alignment with the FCHD Strategic Plan.

The FCHD Maternal and Child Health program works to reduce infant mortality and morbidity and to promote the health of women, infants, and children in the community. Nurse home visiting services are provided through the Healthy Families Fairfax Program, the Nurse Family Partnership Program, and FCHD Maternal and Child Health (MCH) field nurses. Services include prenatal support; postpartum checkup; screening and referral for depression; behavioral health risks to include substance abuse, intimate partner violence, and food insecurity; promotion of positive parenting skills and parent-child bonding; assessment of developmental delays; and the development of economic self-sufficiency for the family, including working towards education and employment goals.

FCHD promotes healthy behaviors for the frail elderly and adults with disabilities attending the Adult Day Health Care program. This service provides ongoing monitoring and coordination of each participant's health, in collaboration with their primary health care providers. This integrated approach promotes the health and wellbeing of the participants and aims to prevent unnecessary hospitalizations due to unmanaged chronic disease or injuries resulting from physical or cognitive impairments. The participants also receive nutritionally-balanced meals, daily exercise and opportunities for social engagement – all factors that promote healthy aging.

The Long-Term Care Coordinating Council (LTCCC), staffed by the Health Department, planned and hosted a Living Well Aging Well Summit in FY 2016 that drew over 900 attendees. To replicate and sustain the Summit in future years, department staff and the LTCCC Leadership facilitated a partnership

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between two community-based non-profits (the Jewish Community Center of Northern Virginia and Celebrate Fairfax, Inc.), who jointly hosted a similar event in October 2017, called the Positive Aging and Wellness Fair. The event, which had approximately 400 attendees, included workshops on exercise, nutrition, and other healthy behaviors, as well as representation from about 50 exhibitors and resource vendors.

FCHD offers access to nutrition services and education as a means of improving and sustaining health for vulnerable populations. The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides nutritious foods, nutrition education, breastfeeding support, and health care referrals to at-risk, low-income pregnant women, new mothers, infants, and children up to age five. In FY 2017, Fairfax County WIC staff served 2,690 pregnant and postpartum women, 1,270 breastfeeding women, 3,693 infants, and 7,672 children for a total of 15,325 clients. WIC activities are funded through a grant in Fund 50000, Federal-State Grant Fund (Volume 2).

In FY 2017, Community Health Care Network (CHCN) Public Health Nurse Liaisons worked in partnership and collaborated with providers at CHCN to provide case management services to patients with chronic diseases to include hypertension, diabetes, cholesterolemia and obesity. Utilizing an evidenced-based approach, the Chronic Care Model allows the patient to feel empowered and play a key role in developing a plan of care that will improve compliance, reduce hospitalizations and emergency room visits and show improvement in clinic lab values and measurements. There is much evidence to suggest that complementing primary clinical care with case management and care coordination helps improve patient health outcomes, especially when treating vulnerable populations. Research indicates that emergency room visits and hospitalizations are often decreased when patients are working with a case manager.

Assuring the Quality and Accessibility of Health Services

Access to health services is vital to keeping communities healthy and strong. Linking people to needed personal health services and assuring the provision of healthcare when otherwise unavailable is an essential service for the FCHD. Due to the significant number of working poor and uninsured in Fairfax County, there continues to be a high demand for services in the Community Health Care Network (CHCN), the County's primary health care system. As of June 30, 2017, 18,565 individuals were enrolled in CHCN (cumulative total for the fiscal year) and there were 411 individuals on the wait list for CHCN services.

In collaboration with the Department of Family Services' Health Access Assistance Team (HAAT), the FCHD has continued to provide off-site eligibility assessment and enrollment at health fairs and community-based programs to reach vulnerable and underserved populations. During FY 2017, CHCN and HAAT staff referred 389 households (representing 545 individuals) to the health insurance marketplace instituted by the Affordable Care Act (ACA) of 2010. Out of a total pool of 545 CHCN enrollees initially projected to be eligible for health insurance subsidies, approximately 200 successfully transitioned from CHCN to other health care resources in the marketplace exchange during the 2016-2017 ACA open enrollment period.

In FY 2017, the FCHD continued to work with the County's Health Care Collaborative to respond to other healthcare service delivery needs associated with the ACA. In follow-up to work done in prior fiscal years, the Health Care Collaborative is working to develop a new primary care network model that better integrates the delivery of health care services to vulnerable populations and communities. The Health Care Collaborative is working with community safety net providers to establish service delivery that assures access to new health insurance marketplace programs; integrates primary, specialty, oral and

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behavioral health services; and improves access and affordability of health care in the Fairfax community.

In FY 2016, Inova Health Care Services, entered into a five-year contract, assuming responsibility for the operation, management and staffing of the primary care components of CHCN. Simultaneously, Genoa expanded their existing pharmacy services contract with the Fairfax-Falls Church Community Services Board (CSB) to assume responsibility for CHCN pharmacy services. These contractors will continue to participate fully in the County's ongoing initiatives related to health services integration, cross-sector health data exchange, and the leveraging of other non-County payer sources for health services provision that are expected to increase the effectiveness and efficiency of the County's Health and Human Services delivery system.

In FY 2017, the CHCN, in collaboration with Inova Health Care Services, and George Mason University Center for Health Policy Research and Ethics, continued working on a three-year grant from the Robert Wood Johnson Foundation. The overall goal of the grant is to build on existing provider payment incentives by rewarding provider teams for improved patient outcomes and a reduction in disparities. Initially, the grant focused on disparities associated with coronary artery disease drug therapy, cervical cancer screening and smoking cessation. Following baseline assessment of other medical conditions, disparities in the maintenance of glycosylated hemoglobin (HbA1c) levels in diabetics and systolic blood pressure level in patients with hypertension were added for evaluation. Initial findings identified disparities between patient groups both within and between the CHCN program's three clinic location settings for several of these conditions. Preliminary root cause analyses, based on clinical data and staff observations identified potential causal factors for the observed disparities. Patient focus groups conducted during FY 2017 have been used to assess patient-based factors potentially contributing to the observed disparities. The grant period ended the first quarter of FY 2018.

Integration of health care services is one of the County's strategic priorities for the local health system. In FY 2017 and FY 2018, the CHCN, in collaboration with the CSB, Neighborhood Health (a federally qualified health center), and Psychiatric Rehabilitation Services (PRS), Inc., continued work on the "Be Well" grant, a four-year grant from the Substance Abuse and Mental Health Services Administration (SAMHSA). Grant activities focus on fully integrating (not just co-locating) primary care services into behavioral health settings, and improving the whole health (i.e., physical, behavioral, and wellness needs) of everyone in the system. The targets for "Be Well" grant activities are people with serious mental illness, who often have difficulty accessing and/or consistently utilizing a primary care medical home. Individuals receiving services through this grant receive primary and behavioral health assessments, targeted care, specialized disease management education, wellness plans, and peer support from both primary care and behavioral health staff. The CHCN-Merrifield and CSB-Gartlan clinic location serve as key sites of focus for this grant. The grant's overall goal is to serve over 700 individuals across all sites by the end of the four-year grant period. At the end of FY 2017, over 300 clients had been enrolled into the Be Well program across all program sites.

The FCHD Maternal and Child Health program works to ensure that all women have a safe and healthy pregnancy. The CDC's publication, "At A Glance 2016: Advancing the Health of Mothers in the 21st Century," identifies an increasing trend in the number of pregnant women in the United States who have chronic health conditions such as high blood pressure, diabetes, or heart disease that may put them at a higher risk of adverse outcomes. The CDC states that health care providers and women can work together to prevent and control chronic conditions both before and during pregnancy to improve chances for a healthy outcome. By assuring the provision of maternity care, the Health Department can improve health outcomes for mothers and their children.

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Access to prenatal care services for uninsured and underinsured women continues through a partnership between the FCHD and the Inova Cares Clinic for Women. The FCHD remains the entry point for pregnancy testing and prenatal care and provides a Public Health Assessment visit to all pregnant women needing services. This visit entails an assessment of psychosocial risk factors, such as depression, intimate partner violence and substance abuse; tuberculosis and Zika screening; and referral to community resources. Eligible clients are referred to the Inova Cares Clinic for Women for the clinical components of prenatal care.

The Adult Day Health Care (ADHC) program, a service provided to adults who need supervision during the day, allows participants to remain at home while giving family caregivers relief from the daily caregiving needs of their loved ones. This enhances the participants' quality of life as well as the economic, emotional, and physical wellbeing of the caregiver. In FY 2017 the Lewinsville Senior Complex was relocated in preparation for a redevelopment project. The complex houses the Lewinsville ADHC center, a senior center, and two child care centers. The new joint complex is expected to be completed in FY 2019.

In FY 2017 an evidence based "Falls Prevention Program" was implemented at all four ADHCs, resulting in a 42 percent decrease in falls. This program had become a part of ongoing programming at each of the centers. An expansion of the "Person-Centered Care" approach was initiated in the latter half of FY 2017, resulting in highly individualized plans of care and activity programming based on personal preferences and abilities.

Innovative models of service delivery such as neighbors helping neighbors "Age in Place" continues to expand in Fairfax County. Communities or neighborhoods initiate service models by self-identifying and self-determining the needs of their members. The needs identified are then used to design systems of service that engage volunteer and/or veteran service providers to deliver a variety of services, such as transportation, shopping, and chores. FCHD staff have assisted communities in the County in planning for or initiating service models to support aging in place. Currently there are 12 neighbors-helping-neighbors (village) programs, either fully operational or under development. Nationally, there are over 200 neighborhood-based age in place "villages."

The Long-Term Care Coordinating Council (LTCCC) develops community-based solutions to address gaps in access to services. In 2017, the LTCCC created a comprehensive Housing Needs Report for Older Adults and Adults with Disabilities including recommendations for the BOS and a review by Department of Housing and Community Development staff for inclusion in the Fairfax County Housing Blueprint. The LTCCC also developed a new strategic plan in 2017, identifying the following priority areas for the next three years: transportation; technology; government affairs; community resource education; project development for unmet needs; and diversity in membership. LTCCC committees have been established to address each priority area with innovative solutions.

In FY 2017 and FY 2018, the FCHD's Office of Emergency Preparedness (OEP) worked with community and emergency planning partners to enhance the accessibility of public health emergency response services for community members with access and functional needs. Through partnerships with subject matter experts and a door-to-door survey to gauge community needs, OEP revised emergency plans, enhanced emergency response resources, and identified trainings for staff and volunteers to improve the accessibility of health services during and after emergencies. A special focus was placed on community members with physical, sensory, mental health, or cognitive and/or intellectual disabilities, medical needs, language needs, and elderly, very young, or pregnant residents.

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Responding to Disasters and Assisting Communities in Recovery

The capacity to detect potential public health threats and quickly mobilize a response is a critical aspect of protecting the health of the public. Within the Division of Community Health Development and Preparedness (CHDP), the Office of Emergency Preparedness (OEP), which includes the Fairfax Medical Reserve Corps (MRC), prepares staff, volunteers, and other partners to prepare for, respond to, recover from, and mitigate public health emergencies. OEP coordinates all emergency preparedness and response planning, logistics, training, and exercise activities for department staff and MRC volunteers, and ensures local and regional coordination before, during and after public health emergencies or other types of emergencies that result in impacts to the public health and healthcare systems.

During FY 2016 and FY 2017, OEP coordinated the department's response to six public health emergencies and four planned events, including local preparedness and response activities related to the West Africa Ebola outbreak, Zika virus, a measles outbreak, and multiple large scale tuberculosis investigations. To meet the increasing frequency, complexity, and severity of public health emergencies, OEP expanded the department's Incident Management Team in FY 2017, recruiting additional staff and providing training and experiential opportunities to enhance the department's capability to respond to emergencies. OEP also increased training and exercise opportunities for staff and volunteers, creating multiple new emergency response trainings and providing bi-monthly exercise opportunities.

OEP ensures achievement of the department's National Association of County and City Health Officials (NACCHO) Project Public Health Ready (PPHR) recognition, a competency-based recognition program that assesses local public health preparedness. OEP coordinates the department's compliance with federal and state public health emergency response reviews and requirements, and coordinates on a local, regional, state, and federal level to further public health emergency preparedness goals. At the local and regional level, OEP coordinates with response partners to ensure support of FCHD emergency preparedness and response objectives, and to ensure that FCHD is ready to coordinate or cooperate with Fairfax County emergency response activities. In FY 2017, OEP also participated in regional efforts to assist healthcare facilities prepare to meet new U.S. Centers for Medicare and Medicaid Services emergency preparedness requirements.

In FY 2017, OEP revised FCHD's Continuity of Operations Plan (COOP) and began developing a comprehensive COOP program to ensure the department's continuity capabilities and further develop the resources needed to maintain mission essential functions. Following the comprehensive revision to the department's medical countermeasure dispensing plans in FY 2017, OEP is planning to participate in a County-wide large scale exercise in FY 2019. This exercise will involve regional partners in order to conduct a federally-mandated regional medication dispensing exercise by FY 2020.

Recruit, Train and Retain a Diverse Competent Workforce

Assuring a competent public health workforce is essential to protecting, promoting, and improving community health. Given the unprecedented climate of transformation and increasing complexity of public health challenges, a primary focus for the FCHD leadership is developing critical crosscutting foundational capabilities within the department that provides the flexibility required to meet traditional as well as changing public health needs. The FCHD and its staff are guided by five values: Making a Difference; Integrity; Respect; Excellence; and Customer Service. There are several ongoing initiatives to create an environment that promotes these values and supports the department's quality culture and quest to become a value driven high performing organization.

In FY 2017, the FCHD provided training based on core public health competencies: *Health Behavior Theory*, diversity training: *Can We Talk about Race, Diversity & Bullying*, and *Cultural Influences on Perceptions-*

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Insights for Healthcare Workers; emergency preparedness: Emergency Preparedness and Response 101, Point of Dispensing for Staff, and Staffing of Emergency Shelters; communication: Crisis and Emergency Risk Communication. To address the emerging threat of Zika Virus Disease in the community, multiple online trainings were developed to inform clinical staff, community partners, citizen groups and healthcare facilities and included, *Epidemiology & Clinical Implications of Zika Virus Disease, Follow-up of Infants associated with Zika Virus Disease, and Vector Prevention and Control for Zika Virus.* Uploading the online training in Employee U provided the ability to reach a greater numbers of County employees.

The workforce development plan for FY 2018 included training and learning opportunities to enhance the specialized knowledge and skills in core public health disciplines, however a greater focus was competency expansion with strategic skills development around systems thinking, change management, data analysis and policy engagement to prepare staff for the cross-sector and leadership work required to effectively address the social, economic and community-based determinants of health. The Health Department, in collaboration with the Health and Human Services system has developed an organizational change plan to address trauma-exposed environments. Individual and organizational action steps are planned to support clients and staff exposed to secondary trauma, and enhance individual and departmental resiliency to ensure optimal health.

Succession planning is an integral of part of the department's workforce development plan, so efforts to prepare staff for promotional opportunities and career advancement was expanded in FY 2018. Some additional strategies that are utilized include cross-training, mentoring, shadowing, and the implementation of career management plans.

Investing in Technology to Improve Efficiency and Service Delivery

For the FCHD service delivery system to be efficient and effective, it must have an operational infrastructure with the right technological tools and resources to meet program needs. In FY 2017 the FCHD expanded technology support through use of modern platforms that provide self-service portals for our provider partners, and automate workflow in key program areas such as Tuberculosis Management, Communicable Disease Management, emergency response, Child Health and School Health Management. In the Tuberculosis program, the FCHD implemented a new digital X-ray solution to enhance X-ray imaging, enable films to be viewed remotely and facilitate the ease of film replication for clients or providers. Remote Video Enhanced Therapy for Directly Observed Therapy now supports the mandate to observe all medication doses taken by TB cases.

The FCHD is actively participating in the Health and Human Services system-wide integrated care model, including pilot projects initiated in FY 2017 for document management, integrated entry to care, and health analytics. The integrated care model encompasses the wide array of health care services provided to County residents in behavioral, social, medical, and dental programs, and supports coordination of care using client-centered business models and systems. As a critical part of this model, an Electronic Health Record (EHR) system will be procured in FY 2018 to allow for the capture, storage and secure exchange of relevant health information with appropriate service partners in the Health and Human Services System.

The FCHD Environmental Health division is participating in the multi-agency Land Development Services System Replacement project, scheduled to begin implementation in FY 2019. The systems will provide a modern enterprise solution to support development plan review, permit and license issuance, code enforcement and inspection, and cashiering activities.

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The FCHD Laboratory continues to evaluate and assess technology to enhance and expand laboratory reporting and data analysis capabilities, implementing new processes including the purchase of a document control software package and remote temperature monitoring devices for laboratory and pharmacy equipment. In FY 2017, the laboratory continued to expand laboratory report functionality, creating customized reports for individual programs and clients to assist in their data analysis. The laboratory continues to work with the Department of Information Technology to expand capacity for secure, web-based access to laboratory test ordering and results. The FCHDL also acquired the SmartVue temperature monitoring system to remotely monitor temperature and humidity of temperature sensitive laboratory and pharmacy equipment. Remote monitoring will allow for faster response to equipment failure and relocation of supplies, preventing additional costs incurred through loss of pharmaceuticals, reagents, and supplies. In FY 2017, the FCHDL focused on a Laboratory Informatics Assessment to determine a strategic direction for future testing and supporting information systems. Plans for FY 2018 include the addition of the SoftMedia module, which will allow all documents and images related to an individual client to be electronically scanned and stored.

In FY 2017 the department's OEP developed an online repository of all department emergency plans, supporting documents, and tools to provide greater access to emergency preparedness and response information for all staff. OEP also developed multiple self-serve systems online to support the work of the department's Incident Management Team when responding to public health emergencies, providing greater situational awareness for staff, a more efficient resource request and tracking process, and an online hub to capture response-related data and documents. Additionally, the MRC program transitioned to a more efficient database management system to onboard, track, train, communicate with, and deploy volunteers. In FY 2019 OEP will continue to identify ways in which new or existing technologies may be better utilized to communicate with community partners and manage the department's response to emergencies.

Improving Organizational Capacity to Fulfill the Evolving Role of Public Health

Effectively addressing 21st century public health challenges will require a strong public health infrastructure. Over the next several years a strategic aim is to build capacity to address health issues at a population level, with a focus on reducing health inequities. Five principles that characterize and guide the FCHD's population-based approach are a community perspective, population-based data, evidence-based practice, an emphasis on outcomes and prevention. This approach will seek to leverage many traditional and non-traditional partners, using innovative strategies to influence policy, systems and environmental changes across sectors. These actions will require mobilizing and aligning stakeholders and resources in new ways that result in broader population impacts and ultimately, improved community health outcomes.

As part of the FCHD's focus on population health, the Live Healthy Fairfax branding has highlighted collaborative community health improvement work by the Health Department's public health system partners. Health Department partners and coalitions contribute to improved health and quality of life for all in the community. The Community Health Dashboard was implemented in FY 2015 to provide a web-based data resource for the Fairfax community to explore existing population data and track year-to-year trends in population health improvement efforts. In partnership with the Department of Neighborhood and Community Services, the Community Health Dashboard includes outcomes data for the Collective Impact for Successful Children and Youth policy plan. In FY 2017 the Community Health Dashboard was further expanded to highlight social, economic and physical environments which create good health for all by hosting the Health and Human Services Report card.

Health Department

In FY 2017, the Partnership for a Healthier Fairfax (PFHF) completed its year three evaluation of implementation goals and objectives for the five-year Community Health Improvement Plan (CHIP). Through the work of public, nonprofit, and business sectors, progress is reported on key actions in each of the seven priority issues: Healthy and Safe Physical Environments; Active Living; Healthy Eating; Tobacco-Free Living; Health Workforce; Access to Health Services; and Data. In the coming years, the FCHD will continue to collaborate with the PFHF on the implementation of CHIP objectives, the development of a Community Health Assessment in FY 2018, and the creation of a new CHIP in FY 2019. The efforts to expand capacity to address community health have been successful, in part, due to grants awarded for implementation of some objectives.

Relationship with Boards, Authorities and Commissions

The FCHD works closely with and supports two advisory boards appointed by the Board of Supervisors.

- The Health Care Advisory Board (HCAB) was created in 1973 to assist the Fairfax County Board of Supervisors in the development of health policy for the County and to advise the Board on health and health-related issues that may be expected to impact County citizens. The HCAB performs duties as mandated by the Board of Supervisors, those initiated by the Board or by the HCAB itself. The underlying goal of the HCAB's activities is promotion of the availability and accessibility of quality cost-effective health care in Fairfax County.
- The Fairfax Area Long Term Care Coordinating Council was created in FY 2002 to identify and address unmet needs in long-term care services and supports. The LTCCC has over 50 members confirmed by the Board of Supervisors and representing other boards and commissions (including the HCAB), public and private agencies, and stakeholders. The LTCCC has supported and developed new services using little or no new County funds to assist adults with disabilities and older adults in a variety of areas.

Note: The Commission on Organ and Tissue Donation and Transplantation was recommended for dissolution at the end of FY 2017 due to nonprofit sector regional organizations who have greater capacity and reach to enhance organ and tissue donation activities.

Health Department

Budget and Staff Resources

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
FUNDING				
Expenditures:				
Personnel Services	\$37,885,801	\$40,747,474	\$40,747,474	\$43,102,196
Operating Expenses	18,930,875	18,568,423	20,880,484	19,324,898
Capital Equipment	112,855	0	103,490	0
Total Expenditures	\$56,929,531	\$59,315,897	\$61,731,448	\$62,427,094
Income:				
Elderly Day Care Fees	\$897,250	\$863,276	\$915,108	\$915,108
City of Fairfax Contract	1,256,740	1,281,874	1,180,625	1,304,170
Elderly Day Care Medicaid Reimbursement	289,044	297,196	297,196	297,196
Falls Church Health Department	332,703	379,461	379,461	379,461
Licenses, Permits, Fees	3,623,338	3,737,290	3,797,413	3,913,120
Reimbursement - School Health	3,995,766	3,995,766	3,995,766	3,995,766
State Reimbursement	9,091,809	9,244,567	9,244,567	9,244,567
Total Income	\$19,486,650	\$19,799,430	\$19,810,136	\$20,049,388
NET COST TO THE COUNTY	\$37,442,881	\$39,516,467	\$41,921,312	\$42,377,706
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	654 / 582.59	654 / 582.59	656 / 584.59	668 / 596.09

This department has 65/65.0 FTE Grant Positions in Fund 50000, Federal-State Grant Fund.

FY 2019 Funding Adjustments

The following funding adjustments from the FY 2018 Adopted Budget Plan are necessary to support the FY 2019 program.

- ◆ **Employee Compensation** **\$1,660,603**
 An increase of \$1,660,603 in Personnel Services includes \$933,017 for a 2.25 percent market rate adjustment (MRA) for all employees and \$727,586 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2018.

Health Department

- ◆ **Health and Human Services Realignment** **\$851,269**

A net increase of \$851,269 and 10/9.5 FTE positions is associated with the realignment of funding and positions within Health and Human Services (HHS) based on work done as part of Phase 2 of the FY 2016 Lines of Business process. This funding includes \$769,227 in Personnel Services and \$82,042 in Operating Expenses. As part of the HHS realignment, administrative functions and 12/11.5 FTE positions currently provided by the Department of Administration for Human Services (DAHS) have been transferred to the Health Department to ensure regulatory, financial and program compliance and to more effectively support each agency's specialized service needs. The realignment also includes the establishment of a new agency, Agency 77, Office of Strategy Management for Health and Human Services (OSM) to support the management of HHS strategic initiatives and inter-agency work. As part of the new OSM, 2/2.0 FTE positions are being transferred from the Health Department. For more information on OSM, please refer to the Agency 77, Office of Strategy Management for Health and Human Services, narrative in the Health and Welfare program area of Volume 1. There is no net impact on the General Fund in terms of funding or positions associated with these changes.

- ◆ **Contract Rate Increases** **\$429,433**

An increase of \$429,433 in Operating Expenses supports a contract rate increase for the providers of contracted health services and for providers of repair and maintenance services for laboratory and medical equipment.

- ◆ **Expand Nurse Family Partnership Program** **\$167,292**

An increase of \$167,292 in Personnel Services and 2/2.0 FTE new positions are included to expand the Nurse Family Partnership Program into the Herndon and Reston areas of the County. The program is an evidence-based nurse home-visiting program that works with low-income mothers who are pregnant with their first child and are at the highest risk for poor birth outcomes, to achieve healthier pregnancies and births, stronger child development, and a path toward economic self-sufficiency. This funding will be used to expand the service to an estimated 50 new families in the Reston and Herndon areas. The Nurse Family Partnership Program is part of the Equitable School Readiness Strategic Plan and funding is consistent with the presentation to the Board of Supervisors in January 2018. It should be noted that \$80,708 in Fringe Benefits funding has been included in Agency 89, Employee Benefits. For more information on Fringe Benefits, please refer to the Agency 89, Employee Benefits, narrative in the Nondepartmental program area of Volume 1.

- ◆ **Nursing Services for Medically Fragile Students** **\$130,000**

An increase of \$130,000 in Operating Expenses is included to address the increase in one-on-one nursing services for medically fragile students enrolled in Fairfax County Public Schools. The Medically Fragile program serves both full-time and pre-school students, and if a student is found eligible, services are mandated under federal law. Cases are reviewed by a multidisciplinary team of experts who recommend services based on the medical need of a student. The Health Department coordinates, manages, and financially supports these nursing services. Over the last several years there has been an increase in demand for one-on-one nursing services and the demand is expected to continue to grow in the coming years as more medically fragile students are entering the school system at the age of pre-school and remaining in the system until the completion of their school years. Additionally, the complexity of care and the number of hours required per student continues to grow.

Health Department

- ◆ **Anti-Parasitic Medication** **\$115,000**

An increase of \$115,000 in Operating Expenses is included to allow the Health Department to dispense anti-parasitic medication to clients in the Refugee Program. The Centers for Disease Control (CDC) recommends that refugees are presumptively treated with the medication. Currently the Health Department only provides a prescription, which has to be filled at an outside pharmacy. Given that the medication is difficult to obtain in the community, by directly dispensing the medication on-site at the Health Department locations, it will save time and effort spent to ensure that outside pharmacies are able to provide the medication in a timely manner, and will reduce delays in treatment. These costs will be completely recovered through Medicaid billing for no net impact to the General Fund.

- ◆ **Epidemiology Funding in Support of Opioids** **\$107,600**

An increase of \$107,600 is required to address the growing opioid epidemic. In response to the opioid crisis facing our nation and local communities in Northern Virginia, the Board of Supervisors established an Opioid Task Force to help address the opioid epidemic locally. The Task Force outlined a multiyear plan to reduce deaths from opioids through prevention, treatment and harm reduction strategies. The multiyear plan also focuses on enhanced data strategies to identify trends, target interventions and evaluate effectiveness. This funding specifically supports a position transferred to the Health Department from the County position pool during FY 2018 to increase epidemiological support for this effort. It should be noted that an increase of \$52,400 in Fringe Benefits funding is included in Agency 89, Employee Benefits. For more information on Fringe Benefits, please refer to the Agency 89, Employee Benefits, narrative in the Nondepartmental program area of Volume 1.

- ◆ **Personnel Services Reduction** **(\$350,000)**

A decrease of \$350,000 to Personnel Services is associated with a reduction based on historical savings in this area as a result of current staffing levels and agency efficiencies. Although no significant impact is expected, the department will be required to closely manage their position vacancies and monitor spending patterns.

Changes to FY 2018 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2018 Revised Budget Plan since passage of the FY 2018 Adopted Budget Plan. Included are all adjustments made as part of the FY 2017 Carryover Review, and all other approved changes through December 31, 2017.

- ◆ **Carryover Adjustments** **\$2,415,551**

As part of the FY 2017 Carryover Review, the Board of Supervisors approved funding of \$2,415,551, including \$2,115,551 in encumbered funding and \$300,000 in unencumbered funding, which includes \$150,000 to restore full funding for the Insight Memory Care (IMCC) contract for one year, and \$150,000 as part of the Incentive Reinvestment Initiative that allowed agencies to identify savings in FY 2017 and retain a portion to reinvest in employees.

- ◆ **Position Adjustment** **\$0**

An increase of 2/2.0 FTE positions is associated with the transfer of 1/1.0 FTE position from the County position pool to the Health Department due to workload requirements associated with the growing opioid crisis in the County, and the transfer of 1/1.0 FTE position from the Department of Family Services to the Health Department to better align resources within the Human Services system.

Health Department

Cost Centers

The Health Department is divided into ten cost centers which work together to fulfill the mission of the department. They are: Program Management, Dental Health Services, Environmental Health, Communicable Disease Control, Community Health Development and Preparedness, Community Health Care Network, Maternal and Child Health Services, Health Laboratory, School Health, and Long Term Care Development and Services.

Program Management

Program Management provides overall department guidance and administration including program development, monitoring, fiscal stewardship, oversight of the implementation of the strategic plan, and internal and external communication. A primary focus is working with the community, private health sector, governing bodies, and other jurisdictions within the Northern Virginia region and the Metropolitan Washington area in order to maximize resources available in various programmatic areas.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$1,847,729	\$1,667,573	\$2,824,737	\$2,793,787
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	7 / 7	7 / 7	10 / 10	21 / 20.5
1 Director of Health	3 Management Analysts IV (1T)	2 Financial Specialists I (2T)		
1 Assistant Director for Health Services	1 Human Resources Generalist III (1T)	1 Business Analyst IV		
0 Director, Health Safety Net Prov. Net. (-1T)	1 Human Resources Generalist II (1T)	2 Administrative Assistants V (1T)		
1 Program and Procedures Coordinator	1 Human Resources Generalist I, PT (1T)	2 Administrative Assistants IV (2T)		
2 Epidemiologists IV	1 Financial Specialist III (1T)	2 Administrative Assistants III (2T)		
TOTAL POSITIONS				PT Denotes Part-Time Position
21 Positions (11T) / 20.5 FTE (10.5T)				T Denotes Transferred Positions

Dental Health Services

Dental Health Services addresses the oral health needs of low-income children at three dental locations (South County, Herndon/Reston, and Central Fairfax). Additionally, dental health education and screening is available in schools and the Head Start programs. The program also provides dental services to meet the acute and emergent dental needs of pregnant women who are receiving maternity services through the Inova Cares for Women program. The program partners with the WIC program to provide fluoride application to children six months to three years of age.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$743,735	\$758,342	\$762,725	\$787,744
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	9 / 9	9 / 9	9 / 9	9 / 9
3 Public Health Dentists	3 Dental Assistants	3 Administrative Assistants II		
TOTAL POSITIONS				
9 Positions / 9.0 FTE				

Health Department

Environmental Health

Environmental Health provides public health services that protect the community from potential environmental hazards and exposures that pose a risk to human health. The division has three program areas: the Consumer Protection Program, the Onsite Sewage and Water Program, and the Disease Carrying Insects Program. The primary services conducted by these programs include inspections, complaint investigations, commercial and residential plan reviews, surveillance and control activities, and community outreach. The division supports the regulated community, other agencies, and the general public to encourage healthy behaviors and maintain voluntary, long-term compliance with state and local regulations.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$4,666,923	\$5,161,730	\$5,162,027	\$5,287,057
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	63 / 63	63 / 63	63 / 63	63 / 63
1 Director of Environmental Health	15 Environ. Health Specialists III		1 Administrative Assistant V	
1 Business Analyst III	27 Environ. Health Specialists II		2 Administrative Assistants III	
3 Environ. Health Program Managers	4 Environmental Techs II		3 Administrative Assistants II	
5 Environ. Health Supervisors	1 Environmental Tech I			

TOTAL POSITIONS
63 Positions / 63.0 FTE

Communicable Disease Control

Communicable Disease Control is responsible for the surveillance of reportable diseases; the investigation of tuberculosis and other communicable disease outbreaks; the provision of infection control guidance to prevent the spread of disease within the community; and the provision of medical services to sheltered, medically fragile and unsheltered homeless individuals.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$7,892,520	\$8,638,938	\$8,968,487	\$8,870,235
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	98 / 98	98 / 98	97 / 97	97 / 97
4 Public Health Doctors	1 Director of Patient Care Services		2 Administrative Assistants V	
4 Comm. Health Specs.	1 Asst. Director of Patient Care Services		7 Administrative Assistants IV	
6 Public Health Nurses IV	1 Management Analyst III		8 Administrative Assistants III	
13 Public Health Nurses III	1 Human Service Worker II		12 Administrative Assistants II	
23 Public Health Nurses II	1 Human Service Assistant		1 Material Mgmt. Driver	
3 Nurse Practitioners	3 Epidemiologists III		1 Administrative Associate	
2 Radiologic Technologists	1 Epidemiologist II		2 Business Analysts III	

TOTAL POSITIONS
97 Positions / 97.0 FTE

Health Department

Community Health Development and Preparedness

Community Health Development and Preparedness serves to strengthen the local public health system through community engagement; improve impact on health outcomes; and ensure the FCHD can anticipate, prepare for and effectively respond to public health emergencies and community health needs. A number of the FCHD's programs and initiatives support this effort, including the public information office, strategic planning, community outreach and partnership engagement, and public health emergency preparedness and response, which oversees the Medical Reserve Corps.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$1,630,694	\$1,884,277	\$1,933,348	\$1,942,276
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	19 / 19	19 / 19	19 / 19	19 / 19
1 Director Comm Health Dev. & Prep.	1 Management Analyst IV		1 Material Mgmt. Spec. III	
1 Public Health Emergency Mgmt. Coord.	3 Management Analysts III		1 Administrative Assistant III	
1 Public Safety Information Officer IV	1 Management Analyst II		3 Emergency Mgmt. Specs. II	
2 Communications Specs. II	4 Community Health Specs.			
TOTAL POSITIONS				
19 Positions / 19.0 FTE				

Community Health Care Network

The Community Health Care Network (CHCN) is a partnership of health professionals, physicians, hospitals and local governments. It was formed to provide primary health care services to low-income, uninsured County residents who cannot afford medical care. Three health centers at Merrifield, South County and North County are operated under contract with a private health care organization to provide primary care services in partnership with County staff.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$10,121,366	\$9,871,760	\$9,936,505	\$9,933,417
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	8 / 8	8 / 8	8 / 8	8 / 8
1 Management Analyst IV	5 Social Services Specialists II			
1 Management Analyst III	1 Administrative Assistant IV			
TOTAL POSITIONS				
8 Positions / 8.0 FTE				

Health Department

Maternal and Child Health Services

Maternal and Child Health Services provides pregnancy testing, maternity case management services, immunizations, early intervention for infants at-risk for developmental delays and case management to at-risk/high-risk families. The FCHD is the entry point for pregnancy testing and maternity services, and clients receive their entire pre-natal care and delivery through Inova Health Systems. The target population is the medically indigent and there is a sliding fee scale for services. Services to infants and children are provided regardless of income.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$8,043,463	\$8,663,167	\$8,745,087	\$9,169,140
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	102 / 102	102 / 102	102 / 102	104 / 104
3 Public Health Doctors	1 Rehab. Services Manager	14 Administrative Assistants II		
1 Asst. Director for Medical Services	5 Speech Pathologists II	1 Human Service Worker IV		
1 Asst. Director of Patient Care Services	2 Audiologists II	7 Human Service Workers II		
6 Public Health Nurses IV	5 Administrative Assistants V	4 Human Services Assistants		
9 Public Health Nurses III (2)	1 Administrative Assistant IV	1 Business Analyst I		
35 Public Health Nurses II	8 Administrative Assistants III			
TOTAL POSITIONS				
104 Positions (2) / 104.0 FTE (2.0)				
() Denotes New Positions				

Health Laboratory

Fairfax County Health Department Laboratory (FCHDL) provides medical and environmental laboratory testing in support of the Health Department's public health clinics and environmental services. FCHDL offers a wide range of testing services to aid in the diagnosis, treatment, and monitoring of diseases of public health significance. These services support Health Department programs such as Tuberculosis (TB), Sexually Transmitted Infection (STI), Rabies, and the Disease Carrying Insects Program, as well as mandated environmental tests and substance abuse tests for other County agencies.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$2,990,524	\$3,248,388	\$3,700,766	\$3,412,399
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	18 / 18	18 / 18	18 / 18	18 / 18
1 Public Health Laboratory Director	1 Senior Pharmacist	1 Administrative Assistant IV		
2 Public Health Laboratory Supervisors	1 Pharmacist	2 Administrative Assistants III		
9 Public Health Laboratory Technologists	1 Management Analyst II			
TOTAL POSITIONS				
18 Positions / 18.0 FTE				

Health Department

School Health

School Health provides health services to students in 197 Fairfax County Public Schools and centers. In addition, it provides support for medically fragile students who require more continuous nursing assistance while they attend school. Services include first aid, administration of authorized medications, identification of potential communicable disease situations, and development of health care plans for students with special health needs.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$15,688,276	\$16,132,747	\$16,207,500	\$16,885,358
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	281 / 209.59	281 / 209.59	282 / 210.59	282 / 210.59
1 Assist. Dir. of Patient Care Services		1 Administrative Assistant IV		
5 Public Health Nurses IV		1 Administrative Assistant III		
8 Public Health Nurses III		4 Sr. School Health Aides, PT		
67 Public Health Nurses II, 3 PT		195 School Health Aides, PT		
TOTAL POSITIONS				
282 Positions / 210.59 FTE			PT Denotes Part-Time Positions	

Long Term Care Development and Services

Long Term Care Development and Services currently includes Adult Day Health Care Centers, which are operated at Lincolnia, Lewinsville, Mount Vernon, and Herndon. A full range of services are provided to meet the medical, social and recreational needs and interests of the frail elderly and/or disabled adults attending these centers. The development branch is responsible for coordination and implementation of the County's Long Term Care Strategic Plan. The services branch focuses on respite programs, nursing home pre-admission screenings and the continuum of services for long-term care.

Category	FY 2017 Actual	FY 2018 Adopted	FY 2018 Revised	FY 2019 Advertised
EXPENDITURES				
Total Expenditures	\$3,304,301	\$3,288,975	\$3,490,266	\$3,345,681
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	49 / 49	49 / 49	48 / 48	47 / 47
2 Public Health Nurses IV	0	Management Analysts II (-1T)	20	Home Health Aides
5 Public Health Nurses III	3	Licensed Practical Nurses	4	Park/Recreation Specialists III
4 Public Health Nurses II	4	Sr. Home Health Aides	4	Administrative Assistants IV
1 Management Analyst IV				
TOTAL POSITIONS				
47 Positions (-1T) / 47.0 FTE (-1.0T)			T Denotes Transferred Positions	

Health Department

Key Performance Measures

The Fairfax County Health and Human Services System has adopted the Results-Based Accountability (RBA) approach to measure impact across the system, foster joint accountability, and collectively strengthen programs and services. This framework focuses on measuring how much work is done; how well work is completed; and whether clients are better off as a result of receiving FCHD services. As a part of this effort, FCHD continues to revise and refine its performance measures to better reflect desired client and community health outcomes. Many new measures have replaced key performance measures used in prior years; therefore, data is no longer being collected for the measures previously reported on. Additionally, data are not available for some years for newer measures due to changes in collection methodologies and reporting tools.

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2015 Actual	FY 2016 Actual	FY 2017 Estimate/Actual	FY 2018	FY 2019
Program Management					
Percent of performance measurement estimates met	60%	56%	60%/66%	60%	60%
Dental Health Services					
Total patient visits	2,721	2,580	2,800/2,909	2,800	2,800
Percent of treatment completed within a 12 month period	43%	32%	40%/33%	30%	30%
Environmental Health					
Percent of environmental complaints resolved within 60 days	88%	89%	90%/97%	90%	90%
Percent of food service establishments demonstrating FDA risk factor control measures to reduce foodborne illness	90%	93%	95%/95%	95%	95%
Percent of out of compliance onsite sewage disposal and water supply systems corrected within the specified time period	90%	92%	90%/93%	90%	90%
Confirmed human cases of West Nile virus in Fairfax County, Fairfax City, and Falls Church City as reported by the Virginia Department of Health	1	8	1/0	N/A	N/A
Communicable Disease Control					
Percent of selected reportable communicable disease investigations for which initial public health control measures were initiated within the appropriate timeframe	85%	83%	90%/78%	85%	90%
Percent of clients who report that the services they received at a public health clinic addressed their health need	91%	98%	94%/98%	98%	98%
Community Health Development and Preparedness					
Percent of staff and volunteers who report they are better prepared for public health emergencies as a result of preparedness trainings and exercises	91%	94%	90%/98%	95%	98%

Health Department

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2015 Actual	FY 2016 Actual	FY 2017 Estimate/Actual	FY 2018	FY 2019
Community Health Care Network					
Number of clients who received primary care through the Community Health Care Network	13,795	12,208	10,950/11,662	15,000	15,000
Percent of Community Health Care Network clients with stable or improved health outcomes	52%	72%	64%/67%	64%	67%
Maternal and Child Health Services					
Percent of children served by the Health Department who are up-to-date on immunizations at 24 months of age	62%	57%	60%/62%	60%	60%
Percent of pregnant women served who deliver a low birth weight baby	8.4%	7.5%	7.8%/7.9%	7.8%	7.8%
Health Laboratory					
Percent of individuals saved from unnecessary rabies post-exposure shots by timely receipt of negative lab results	99%	99%	95%/100%	95%	95%
School Health					
Percent of students' health care plans established within 5 days	55%	63%	60%/60%	N/A	N/A
Ratio of PHN training hours to number of FCPS staff trained to implement health care plans	N/A	1:20	1:25/1:17	1:17	1:17
Percent of parents and guardians who report that their child was able to attend school as a result of having a health care plan	82%	85%	85%/87%	85%	85%
Long Term Care and Development Services					
Percent of participants who met the criteria for institutional level of care who were able to remain in the community	92%	96%	92%/98%	92%	92%
Percent of caregivers who report experiencing less stress as a result of Adult Day Health Care	93%	96%	93%/96%	93%	93%

A complete list of performance measures can be viewed at
<https://www.fairfaxcounty.gov/budget/fy-2019-advertised-performance-measures-pm>

Performance Measurement Results

Program Management

Program Management, composed of the Health Director and supporting staff, oversees the FCHD General Fund Budget of \$62,427,094 and all the department's performance objectives. In addition, the department anticipates receiving grants totaling approximately \$4.9 million and revenue of \$20,049,388 in FY 2019. The department met 66 percent of all the performance measure estimates set for FY 2017, exceeding the performance targets of 60 percent. However, estimates for quality and efficiency measures decreased to 52 percent, thereby missing the target of 60 percent. The reasons are explained in the respective cost centers' performance measurement results sections.

Health Department

Dental Health Services

In FY 2017, the dental program focused on oral health and preventative programs initiated in the previous fiscal year (e.g., fluoride application to infants and toddlers who attend the WIC program). While the program continues to meet the needs of low-income residents requiring chair-based dentistry, there has been an increased focus on population health. As such, dental program staff conducted more outreach to the community to prevent future dental problems while still serving children with complex treatment needs.

During FY 2017, staff developed a comprehensive program with the School Health Program to conduct additional screenings in the Title 1 schools (those with high rates of free and reduced lunches). As a result, screening numbers rose significantly in FY 2017 and will continue to increase in FY 2018 and FY 2019. Students with dental needs were offered dental services at health department clinics, leading to an increase in new patients served. However, total visits for chair-based dentistry remained relatively stable as dental program staff were also providing population-based services to the community.

Working with the most vulnerable children (e.g., Title I schools, and referrals from the Medical Care for Children Program) adversely impacted revenue in FY 2017. Many of these children lack dental insurance and have limited income sources which fall to the lower end of the sliding fee scale. In addition, the acuity (severity of needs) of the patients has increased, requiring many visits for complex treatments prior to completing care. Another factor contributing to the decline in revenue is that many of the unaccompanied refugee children being served are older and have had limited oral health care in the past.

Environmental Health

Consumer Protection Program: The Consumer Protection Program (CPP) currently has oversight of 3,649 permitted facilities that include 3,443 food establishments and 206 other commercial establishments. CPP also conducts health inspections for other licensing agencies and responds to reports of public health or safety menaces. In FY 2017, CPP responded to 58 percent of complaint investigation requests within three days of receipt, and 97 percent of these requests were resolved within 60 days of receipt.

CPP categorizes food establishments and conduct inspections on a risk and performance based frequency. Depending on its assigned category, a food establishment is inspected one, two, or three times within a 12-month period. For a food establishment with a poor compliance history, CPP provides additional tailored services (e.g., inspection, onsite training, and risk control plan) to help the establishment achieve long-term compliance with the regulations. In FY 2017, food establishment inspections were completed per regulatory mandates with 98 percent of those inspections being conducted within the prescribed risk and performance based inspection frequency. At the conclusion of FY 2017, CPP determined the effectiveness of the regulatory food program's services and found that 95 percent of all food establishments follow FDA risk factor control measures to reduce foodborne illness. This means that 5 percent of the food establishments had an increase in inspection frequency during FY 2017 to help improve compliance. In FY 2018 and FY 2019, CPP will continue to identify risk factors that could lead to disease in regulated establishments and to educate employees on public health interventions that contribute to a healthy and safe community.

Onsite Sewage & Water Program: The Onsite Sewage & Water Program (OSW) focuses on disposal systems and private well water supplies to ensure proper construction, operation and maintenance that protect public health. During FY 2017, 93 percent of sewage disposal system violations and well water system deficiencies were corrected within 60 days.

All new construction for commercial and residential properties without access to public sewer and

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existing malfunctioning systems require a site soil evaluation review by OSW. Once approved, a conventional or alternative sewage disposal system can be designed for property development. Alternative Onsite Sewage Systems (AOSS) regulations require design by professional engineers. OSW reviews these designs and inspects the installations of AOSS. In FY 2017, OSW conducted 141 soil evaluations. Over half of all new sewage disposal systems approved were alternative designs.

The water recreation facilities program has regulatory oversight of approximately 1,210 pools, spas, interactive water features, and water parks. In FY 2017, Environmental Health completed inspections per regulatory mandates with each pool vessel receiving one inspection and 99 percent having two inspections.

Disease Carrying Insects Program (DCIP): Mosquitoes, ticks and other vectors are responsible for transmitting pathogens that can result in life-changing illnesses such as West Nile virus, Lyme disease, and the Zika virus. The program uses an integrated approach that combines public education, surveillance, and vector control to help protect the public from mosquito and tick-borne diseases. The total DCIP cost per capita was \$1.16 in FY 2017, a decrease of \$0.27 from FY 2016. DCIP staff collaborate with the FCHD Communicable Disease Epidemiologists in their investigation of human cases of WNV and other important reportable vector-borne illnesses. During FY 2017, there were no confirmed human cases of WNV in the County and viral activity in mosquitoes was relatively low.

From FY 2003 through FY 2017, the Health Department utilized a contractor to perform larval mosquito surveillance (inspection of larval mosquito habitats) and larval mosquito control activities (larvicide treatments to storm drains and other larval mosquito habitats). However, in recent years, the contractor was unable to fulfill the requirements of the contract. During FYs 2015, 2016 and 2017, the contractor completed 70 percent, 71 percent and 73 percent respectively, of expected storm drain treatments on-schedule. Beginning in FY 2016, the Health Department increased its capacity to perform larval mosquito inspections and mosquito control activities leveraging internal resources and decreasing its dependence on contracted services. The shift to in-house routine larval surveillance and control activities from the storm drain-focused applications allows for the more efficient use of mosquito control products and program resources. New performance measures that track the efficiency of adult mosquito surveillance, larval mosquito surveillance and mosquito control have been introduced in the current budget cycle to replace existing measures. The contract was not renewed in FY 2018, and this is the first year that Health Department staff have conducted all mosquito-related surveillance, inspections and treatments without reliance on a contractor. These activities are planned to continue in FY 2019.

Based on the increased volume of work being done in FY 2017 and FY 2018, the Health Department assigned more resources to the DCIP and expanded the number of seasonal Environmental Technician I positions filled in the DCIP from five each mosquito season to 12. These changes improve the Department's ability to respond to citizen concerns about mosquito issues, allow for an expansion of surveillance and control efforts, and help to prepare the County for an emergency response to mosquito-related issues if the need arises. Larval and adult mosquito surveillance are now more fully integrated, which has led to more effective mosquito control activities during FY 2017 and FY 2018. The emergence of Zika in the Americas during FY 2015 stressed the need for more FCHD staff to be prepared to mount a public health response to the threat of mosquito-borne diseases should the need arise. FCHD has increased the number of both merit and non-merit staff that are licensed by the Virginia Department of Agricultural and Consumer Services (VDACS) as pesticide applicators and/or registered technicians from five in FY 2016 to 22 in FY 2017. In CY 2016, the Virginia Department of Health (VDH) negotiated contingency contracts for mosquito control response with two vendors that the County would be able to use if deemed necessary.

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Communicable Disease Control

The total number of screenings, investigations, and treatment for tuberculosis (TB) and reportable communicable disease (excluding animal bites and HIV/AIDS) was 29,445. This metric includes TB risk screenings, TB testing (TST and blood tests), X-rays and biological specimen collection to rule out TB, treatment of active TB cases, investigations of reportable diseases and outbreaks, and screenings of individuals exposed to measles.

Tuberculosis: In FY 2017, the FCHD provided 25,332 tuberculosis (TB) screening, testing, and treatment services. This was an increase from FY 2016 (24,816). This increase may be attributed to several large TB contact investigations. The rate of active TB disease in Fairfax County remained relatively flat at 5.7 per 100,000 (compared to 5.4 in 2016). However, the County case rate remains higher than many areas of the state due to the County's diversity and high prevalence of TB in many parts of the world. FCHD provides high quality clinical care for TB. The most recent TB clinical care indicators demonstrated that FCHD meets and in many cases, exceeds the goals set by the Virginia Department of Health.

Communicable Disease (CD): The number of CD screenings, investigations and treatments for selected communicable disease was 29,445 during FY 2017, a decrease from the prior year 30,949. These fluctuations are influenced by a few factors, such as the number and scope of investigations and infection control and prevention efforts. Forty-nine separate outbreak investigations originated in Fairfax County in FY 2017, an increase from FY 2016, when 33 outbreaks were investigated. In FY 2018, FCHD will continue to provide routine investigation of diseases, and respond to outbreaks.

Community Health Development and Preparedness

Community Health Outreach (CHO): CHO serves as a resource for FCHD programs, helping them link with communities and provide residents with information about services, disseminate important health messages and engage in direct health education. Much of CHO's activity is based in the County's growing minority and multicultural communities.

In FY 2017, CHO worked with more than 425 governmental and community-based organizations, participated in over 482 individual events, and reached over 40,831 individuals; of those surveyed, 92 percent were satisfied with the health promotion activities provided. Outreach and health promotion activities include the Chronic Disease Self-Management Program (CDSMP); the Diabetes Self-Management Program (DSMP); the Vaccine Literacy Campaign; facilitated dialogues to reduce the stigma of mental health diagnosis, and outreach related to hand washing, emergency preparedness, and access to Health Department services and programs.

CHO continues to identify Diabetes and Chronic Disease Self-Management Program (CDSMP) leaders and community partners willing to participate in sustainability efforts for this evidence-based program. Through new partnerships and existing outreach initiatives there is an increase in clients enrolled in CDSMP. In FY 2017 CHO efforts focused on health promotion outcome evaluation related to knowledge and behavior-related measures, a shift from a past focus on the increase in numbers of individuals reached.

Office of Emergency Preparedness (OEP): In FY 2017, the department's response to multiple public health emergencies, coupled with the increased variety and frequency of preparedness and response trainings, exercises, and activities provided excellent opportunities for staff and volunteers to participate in preparedness and response activities. Ongoing efforts will focus on providing additional opportunities for staff and volunteers to complete the two new required trainings added in FY 2017 as well as the multiple potential trainings and exercises needed to prepare new Incident Management Team members.

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OEP collects data to determine if its efforts are making a difference in how staff and volunteers feel about their own individual level of preparedness. In FY 2017, 98 percent of staff and volunteers surveyed indicated that they were better prepared as a result of participating in an emergency preparedness training or exercise. As trainings and exercises are offered to more staff and volunteers, data from evaluations and lessons learned from exercises will help refine the program further.

Community Health Care Network

The large number of low-income, uninsured residents continues to provide significant demand for Community Health Care Network (CHCN) services. During FY 2017, the CHCN provided access to health services for 18,565 enrollees; served 11,662 of those individuals through at least one visit; provided 30,925 primary care visits across all three CHCN clinic sites; and coordinated 8,187 referrals for specialty care services. Over the past three fiscal years, annual enrollment totals of uninsured, low-income individuals meeting CHCN program eligibility criteria were: 18,120 (FY 2015), 18,079 (FY 2016) and 18,565 (FY 2017). Over the next few years, as County efforts take shape to redesign the local safety net system, prioritize Fairfax-Falls Church Community Services Board patients requiring access to a primary care medical home and initiate acceptance of payment from third-party payer sources, the number of individuals enrolled in CHCN services may increase.

During FY 2017, there was a 17.2 percent decrease in the number of primary care visits provided, from 37,365 in FY 2016 to 30,925 in FY 2017, and a decrease of 4.5 percent in the number of unduplicated patients seen, from 12,208 in FY 2016 to 11,662 in FY 2017. This was due to the slower than anticipated onboarding of the new CHCN vendor. As such, the number of patient visits and unduplicated patients dropped and the net cost per patient visit increased from \$217 to \$327. In FY 2017 the new vendor completed one full year of operations and permanent staff were hired. It is anticipated that the level of patient visits and unduplicated patients served will gradually increase and return to pre-contract transition levels. Consequently, the net cost is projected to decrease to \$232 in FY 2019. The CHCN program continues to make extensive use of prescription patient assistance programs to acquire free and/or low-cost medications for CHCN patients to keep the program's pharmaceutical costs down.

Based on the most recent patient satisfaction survey, 91 percent of CHCN clients were satisfied with their care at the CHCN health centers. Although the lack of provider availability and difficulties getting patients seen in a timely manner throughout the fiscal year were noted as issues, the overall patient satisfaction for the care received reflects the program's ongoing commitment to quality assurance.

In FY 2017 the percent of CHCN patients with stable or improved outcomes was 67 percent (i.e., 2,222 out of 3,331 positive outcome readings for individuals diagnosed with diabetes and/or hypertension). This outcome reflected a decrease in positive outcomes compared to 72 percent in FY 2016. Beginning in FY 2016, the sample size for assessing this performance measure was increased to reflect a more representative sample of the CHCN patient population resulting in a larger number of patients with diabetes and hypertension. Clinical guidelines for controlled glycosylated hemoglobin (HgbA1c) and hypertension ranges were utilized to identify the proportion of CHCN patients with measured readings within specified control ranges for these two high-prevalence chronic conditions.

Maternal and Child Health Services

Maternal Child Health Services (MCH): The number of Public Health Assessments provided to pregnant women in the FCHD district offices was relatively constant during FY 2016 (3,036) and FY 2017 (3,030). FCHD's Home Visiting (HV) Programs includes two evidence-based programs (i.e., Healthy Families Fairfax and Nurse Family Partnership (NFP) and one evidence-informed program (MCH Field). These three programs' goals align with the Health Resources and Services Administration's (HRSA) Federal

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Home Visiting Goals which aim to improve maternal and child health, prevent child abuse and neglect, encourage positive parenting, and promote child development and school readiness. MCH home visiting services were provided to 1,907 clients in FY 2017, an increase of 16 percent from FY 2016. The percent of NFP pregnant women retained through their entire pregnancy decreased in FY 2017 from 84 percent to 75 percent. This may be due to fluctuations in NFP staffing in FY 2017. The FCHD's retention during pregnancy percentage was above the NFP national rate of 67 percent and slightly below the state rate of 76 percent in FY 2017.

The percent of pregnant women served through the FCHD and Inova Cares Clinic for Women (ICCW) who delivered a low birth weight baby increased slightly from 7.5 percent in FY 2016 to 7.9 percent in FY 2017. This is in close alignment with the national low birth weight goal of 7.8 percent established by Healthy People 2020. Maternity clients with medical conditions are at a higher risk for delivering a low birth weight newborn. Given that the population served is generally at higher risk for poor birth outcomes than the general population, FCHD and ICCW closely monitor birth outcomes and will continue to address risk factors which contribute to low birth weight, such as poor maternal nutritional status and adequacy of prenatal care. The collaborative care delivery model between the FCHD and ICCW provides quality early public health services and continuous prenatal clinical care, which is critical to improving pregnancy and birth outcomes.

Immunizations: In FY 2017, 37,659 vaccines were administered to 10,077 children, newborn to 18 years of age, an increase of over 6,000 vaccines administered. These increases may be due to two quality improvement initiatives implemented in FY 2017 to improve immunization rates. An immunization reminder/recall live telephone call system was implemented to clients who had received previous immunization services at the FCHD, informing them to obtain vaccines that are due. These telephone calls also identified clients who had established a medical home, and were then removed from the FCHD Immunization services denominator. An adolescent immunizations and HPV Quality Improvement (QI) initiative was implemented across all offices, which has shown an increase in doses of HPV vaccine administered, as well as meningococcal vaccine. Analysis and evaluation of this QI initiative will take place in FY 2018. FCHD plans to utilize lessons learned to continue quality assurance efforts in the district office clinics. Trends in numbers of children immunizations administered will be monitored over the next fiscal year, before adjusting future estimated performance indicators.

Additional action steps to improve immunization rates included an adolescent immunizations and HPV Quality Improvement initiative across all offices, which showed a 48 percent increase in doses of HPV vaccine administered; continued expanded training and usage by FCHD staff of the Virginia Immunization Information System (VIIS); and outreach efforts to educate more child day care providers, parents, and health care providers on the importance of timely immunization.

The percent of children served who completed the recommended vaccine series by 24 months of age increased to 62 percent, an increase of 5 percentage points from FY 2016 (Up-to-Date Report, Quarter 1, January–March 2017, Virginia Department of Health). This vaccine coverage rate has consistently remained below the FCHD and Healthy People 2020 goal of 80 percent. A major contributing factor is having a highly transient population and the inability of FCHD to track individuals who are unable to complete vaccination series started at the FCHD. By the time of school entry, however, a much higher percentage of children are adequately immunized, 84 percent Kindergarten entry immunization rate (Comprehensive Clinical Assessment Software Application [CoCASA] FY 2017), despite having lacked these immunizations or adequate documentation of vaccination at the age of two. This is attributable to the state law which establishes minimum vaccination requirements for school entry to lower the incidence of vaccine preventable diseases.

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Speech and Language: The Speech and Hearing program provides speech and audiology services to both children and adults, but predominately serves children. In FY 2017, 91 percent of both speech and hearing clients were children. The program is the sole provider of hearing aid services for children with Medicaid in the County. The Speech program, though not fully staffed during FY 2017, achieved a 12 percent increase in client visits (3,084 visits) when compared to FY 2016 (2,749 visits). From FY 2016 to FY 2017 there was a 13 percentage point increase in the percent of clients discharged as corrected, no follow-up needed (80 percent to 93 percent). Given historical data, the estimate for FY 2018 remains at 75 percent.

Health Laboratory

A continuing focus of laboratory performance is control of average cost per test. The average cost per test in FY 2017 (\$8) was higher than FY 2016 (\$7) due to increased cost of personnel, reagents and supplies associated with the addition of new test methods and the increase in test volume. Future projected cost per test reflects an increase associated with increased cost of supplies and personnel costs. The implementation of more specific molecular methods which allow for earlier detection of Sexually Transmitted Infections (STI) and Tuberculosis disease and the elimination of unnecessary chest x-rays and treatment for false positive tuberculin skin tests has resulted in significant savings to the County. The Health Insurance Portability and Accountability Act (HIPAA) compliant Laboratory Information System (LIS) was recently enhanced to include a web portal for ordering and viewing test results and provide the capability to create individualized ad hoc statistical reports. These will allow the laboratory to improve service delivery, reduce turnaround time, improve customer satisfaction, and increase both testing volumes and testing revenues while maintaining the average cost per test despite escalating medical equipment and supply costs.

Quality improvement is an ongoing process in the operation of any laboratory. The FCHD Laboratory distributes an annual Customer Satisfaction Survey to measure whether services provided meet or surpass the needs of clients. The responses to the survey assist laboratory staff to develop and monitor quality improvement projects, assess test menus, monitor trends, and improve communication with customers. The FCHD laboratory continued to maintain a high level of customer satisfaction as measured by FY 2017 survey results which indicate that 97 percent of customers were satisfied with current services.

To achieve and maintain certification through regulatory authorities such as Clinical Laboratory Improvement Amendments and the Environmental Protection Agency (EPA), laboratories must participate in annual proficiency testing programs. The FCHD laboratory participates in the following proficiency testing programs: College of American Pathologists (CAP), Wisconsin State Laboratory of Hygiene (WSLH), Centers for Disease Control and Prevention (CDC), and EPA approved environmental studies. The FCHD laboratory continued to maintain a high degree of accuracy as measured by its FY 2017 scoring average of 97 percent on accuracy tests required for certification. The department's scoring level exceeds the service quality goal of 95 percent and exceeds the accepted benchmark of 80 percent required for satisfactory performance by laboratory certification programs.

Rabies, a preventable viral disease often transmitted through the bite of a rabid animal, is almost always fatal once symptoms appear, but can be prevented almost 100 percent of the time when post-exposure prophylaxis is administered soon after an exposure occurs. The FCHD laboratory provides 24-hour turn-around-time for rabies testing on animals to allow for timely prophylactic treatment when needed and the avoidance of unnecessary rabies post-exposure shots, which average \$4,000 per series. The rabies laboratory exceeded its service quality goal of 95 percent and reported rabies test results in less than 24 hours on 100 percent of critical human exposures to potentially rabid animals. Of the 428 rabies tests

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conducted, 14 individuals were confirmed to have been exposed to rabid animals. The savings in medical costs associated with the 378 negative test results is estimated at \$1,512,000.

School Health

In FY 2017, the School Health Services Program supported 187,510 students at 197 school sites in Fairfax County Public Schools (FCPS) during the regular school year, 26,287 students at 162 sites in summer school and community recreation programs and 2,660 students enrolled in four Falls Church City Public Schools (FCCPS). FCPS summer program enrollment related to Individualized Education Program services, summer enrichment and prevention courses and individual school-sponsored programs increased 5.6 percent from summer 2016.

In FCPS, the number of students with a health condition that could impact their school day was 66,887 in FY 2017. This represents an increase of 14 percent over FY 2016 and combined increase of 33 percent for FY 2015 to FY 2017. In FCCPS, 674 (25 percent) of students had a health condition, an increase of 5 percent since FY 2016.

The provision of training (e.g., epinephrine administration, asthma inhalers, glucometers and individual student procedural training) to school staff to enable students with health conditions to fully access their education is a critical activity in the school health program. Public Health Nurses (PHNs) provided training to 28,902 school staff, an overall 8 percent increase since FY 2016. For FY 2017, the proportion of plans in place within 5 days decreased from 63 percent in FY 2016 to 60 percent. There was a small increase in the number of parents and guardians who reported their child could attend school as a result of having a health care plan in place from 85 percent in FY 2016 to 87 percent in FY 2017.

The expanded use of online health information training that enables school staff to effectively manage students' health conditions during the school day helps ensure training. It should be noted that the time required to prepare health plans, conduct training to implement and monitor these plans, along with PHN vacancies, continues to limit opportunities for PHNs to conduct health promotion activities. Additionally, the complexity of individual students' health needs is increasing; consequently, more intensive and longer training by the PHN is needed to ensure staff competency.

In the past five years, the enrollment of students in Fairfax County Public Schools has increased 3.8 percent. Preliminary FCPS estimates indicate that student enrollment will remain stable or only slightly increase in the coming school year(s); however, the health needs of students continue to become more complicated at a rate not commensurate with enrollment. A skilled School Health staff with ratios that are appropriate to manage these needs is essential to the management of chronic and/or complex medical conditions. The overall satisfaction of parents with school health services remained high, with 84 percent of parents and guardians reporting that their child's health condition is managed effectively in the school setting, an increase in satisfaction from the 77 percent reported in FY 2016. There remains a challenge of meeting parental expectations of increased access to the PHN and timely development of health care plans.

Long Term Care Development and Services

Nursing Home Pre-Admission Screenings: The number of Medicaid Nursing Home Pre-Admission Screenings (NHPAS) completed in FY 2017 for low-income, frail elderly and adults with disabilities was 1,379. Although FY 2017 screening numbers plateaued from the prior year, data on aging trends indicates that population growth for this age group is expected to increase with future growth of approximately 4 percent annually. This trend is reflective of the aging population both nationally and in Fairfax County. The increase in requests for home-based community services is indicative of the desire to age in place.

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Medicaid eligible older adults and individuals with disabilities can access services in the community if they so choose. In 2014 the Virginia General Assembly modified the Code of Virginia to stipulate that the time between a request for a screening and the submission of the completed screening to the Department of Medical Assistance Services (DMAS) for processing be no more than 30 calendar days. In FY 2017 the average number of calendar days between the request for a screening and its submission to DMAS was 15 calendar days with 98.5 percent of all screening requests being completed within 30 calendar days.

Of the 1,379 NHPAS completed in FY 2017, 907, or 66 percent were eligible for services and 89 percent of those deemed eligible selected community-based services rather than institutional care.

Adult Day Health Care (ADHC): Ninety eight percent of the ADHC participants met the criteria for institutional level of care but could remain in the community due in part to the support services received at the ADHC. This exceeds the annual projection of 92 percent, as the population served this year was frailer. Ninety-six percent of family caregivers surveyed this year state that they experienced less stress when their loved one attended an ADHC Center, which was higher than projected at 93 percent. Several Fairfax County family caregivers participated in a Penn State University study on caregivers of participants in an adult day services program. The study demonstrated “interventions to lower stress on caregivers, such as the use of adult day care services, influence the body’s biological responses to stress...” which suggests that use of adult day care services may protect caregivers against the harmful effects of stress associated with giving care to someone with dementia. Family caregivers surveyed also acknowledged other benefits experienced by participants who attend the ADHC, including an improvement in their mood and physical health. Additionally, they reported that their loved one had more opportunities to engage in meaningful activities. These factors serve to improve the overall health and wellbeing of the participants.

Despite high satisfaction levels and the increasing aging demographic, the ADHC program has experienced a slow decline in enrollment over the past seven years. In FY 2017, the Average Daily Attendance (ADA) of 90 did not meet the goal of 95 and the total enrollment of 232 did not meet the goal of 250. Over the past decade there has been a proliferation of long term care services to include home care agencies, assisted living facility memory units, the Program for the All-inclusive Care of the Elderly, (PACE) and other adult day programs offering alternatives to the County operated ADHCs. The growth in service providers has contributed to the significant reduction in enrollment over the last few years.

During FY 2017, the actual net cost to provide services to a participant was \$85 per day compared to the estimated cost of \$79 per day. This variance resulted from a less than anticipated enrollment and an increase in expenditures. During FY 2017 a revised marketing campaign with a more targeted approach was implemented and included outreach to physicians’ groups, website enhancement, use of social networking, and marketing to ethnic communities. The Health Department will work with a marketing specialist to develop and implement a marketing strategy designed to increase public awareness. This effort is expected to increase the ADA to 100 in FY 2019.